

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:** Forte Vineyard, Partrick Road, Agricultural Erosion Control Plan Application (ECPA) #P20-00139-ECPA
2. **Property Owner(s):** Vincent and Amelia Forte
3. **Contact Person, Phone Number and Email:** Donald Barrella, Planner III, (707) 299-1338, Donald.Barrella@countyofnapa.org
4. **Project Location and APN:** Approximately 1 mile west/northwest of the intersection of Partrick Road and Browns Valley Road (**Figures 1 – 3**)
Section 1 Township 05 North Range 05, and Section 6 Township 05 North Range 04 West, Mt. Diablo Base
Latitude 38° 18' 30.83" N / Longitude 122° 21' 27.57" W
APN 050-030-015
5. **Project Sponsor:** Vincent Forte
c/o Sharon Kazan Harris
RARECAT Wines
P. O. Box 801
Rutherford CA 94573
Agent: Drew Aspegren (RPE #31418)
Napa Valley Vineyard Engineering Inc.
176 Main Street, Suite B
St Helena CA 94574
6. **General Plan Description:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Description of Project:** The proposed project involves the clearing of vegetation (annual grassland, coyote brush/scrub, and coast live oak forest), earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 20.23 gross acres of vineyard (the project area) with approximately 15.75 net planted acres, located on an approximate 95.1-acre property (the project site). The project area would occur within seven (7) different development areas throughout the project site as show in the ECPA plans. The project also proposes the construction of nine (9) attenuation basins, two (2) new groundwater wells, seven (7) 5,000-gallon storage tanks (typically 12-foot diameter by 9.5-foot tall), and approximately 125-feet of new vineyard access road. Slopes within the development area range from 15% to 48%, with an average slope of 22%: approximately 1.09-acres of the proposed development would occur on slopes over 30%. Rock removed during vineyard development would be used for road base, erosion control measures, or used as decorative rock within the development area. There would be no transport of spoils off-site. Two (2) trees would be removed. New wildlife exclusion fencing would encompass each development area around their peripheries.

Erosion Control Measures: Temporary erosion control measures include installation of fiber rolls and the application of straw mulch at a rate of 4,000 pounds per acre, and a temporary cover crop maintained at a minimum vegetation cover density of 80% for the first 3 years of vineyard development. Permanent erosion control measures include: waterbars, diversion ditches, drop inlets, subsurface drainlines, attenuation basis with associated outfalls and energy dissipators, and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80% for the proposed vineyard including vineyard avenues. Details of the proposed erosion control measures are provided in Forte Vineyard, Partrick Road, ECPA (February 16, 2023) prepared by Drew Aspegren (RPE #31418) of Napa Valley Vineyard Engineering Inc (**Exhibit A**).

Earthmoving: Earthmoving and grading activities associated with land contouring (less than 100 cubic yards cut and fill balanced onsite) and the installation of erosion control measures and subsequent vineyard operations include, but are not limited to, vegetation removal, soil ripping to a depth up to 18 inches, rock removal, disking, trenching for irrigation pipelines, and the development of erosion and runoff control measures.

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

- a. Ephemeral streams have been provided with setbacks greater than the required minimum of 35-feet (typically a +50-foot buffer is provided), and the County Definitional (Blue-line) Stream has been provided with greater setbacks than the minimum required which range from 85 feet to 150 feet, pursuant to NCC Section 18.108.025(B).
- b. Landslides have been provided with minimum 50-foot setback buffers consistent with the Project's Geotechnical Engineer recommendations.
- c. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 6-foot by 4-foot spacing pattern for an approximate vine density of ±1,815 vines per acre.
- d. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.

- e. 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 early springtime spot spraying at the base of vines with contact or systemic herbicides: no pre-emergent spraying would be utilized as part of cover crop management.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P20-00139-ECPA and **Table 2** outlines typical ongoing vineyard operations. The vineyard would be developed in one phase, with construction occurring up to six months during the year. The final implementation schedule is pending action on #P20-00139-ECPA.

Table 1 – Implementation Schedule

April 1 to October 15 ¹	Clear and prepare planting area. Install erosion control, drainage improvements, rolling dips, etc. Install irrigation and trellis system, and plant vines. Seed cover crop and straw mulch disturbed areas for the first three years of vineyard development and establishment.
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¹ During the winter months (October 1 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Section 18.108.070(L).

Table 2 – Typical Annual Operations Schedule

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

Vineyard construction is anticipated to generate between approximately 5 and 30 round trips per day for anticipated work crews of between 10 and 20 employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would include bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Vineyard operations are anticipated to generate approximately 8 to 12 round trips per day, for anticipated work crews of between 1 and 10 employees for typical operations, such as but not limited to irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vine/vineyard inspection, on the days when these activities occur. Activities during peak operations such as, but not limited to, vineyard pruning, weed and pest control, and harvest are anticipated to generate between approximately 10 to 20 round trips, including grape haul trucks, for anticipated work crews of between 15 and 20 employees. Anticipated equipment for vineyard operations would include tractors, backhoes, grape haul trucks, and ATVs and passenger vehicle and/or light trucks.

Implementation of the proposed project would be in accordance with the Forte Vineyard Partrick Road Track I Erosion Control Plan (#P20-00139-ECPA) prepared by Napa Valley Vineyard Engineering Inc., (February 2023 - **Exhibit 1**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES), and at <https://pbes.cloud/index.php/s/SLZHgWgZWEY4obK>

9. Describe the environmental setting and surrounding land uses.

The approximate 95-acre project site is located immediately west of the City of Napa in the Browns Valley area of Napa, approximately 1 mile west/northwest of the intersection of Partrick Road and Browns Valley Road, or approximately 0.25 miles west/southwest of the intersection of Partrick Road and Borrette Lane (**Figures 1-3**). Almost the entirety of the project site and project area is in the Browns Valley Creek Drainage: the southern tip of the project site and approximately 0.53 acres of the project area are located in the Napa River Lower Napa City Reach Drainage. An existing dirt road provides access to the project site and project area from Partrick Road located 0.15 miles north of the site.

Surrounding and adjacent land uses consist generally of rural residential and undeveloped lands, interspersed with vineyards, to the north, south and west, and urban residential to the east in the City of Napa. The Mount Veeder Springs Winery and the Reid Family Vineyard Winery are located approximately 0.5 miles to the west and northeast, respectively, of the project site.

General topography of the area consists of the hills, valley, and minor ridgelines of the southwest edge of the Napa Valley and the southeast flank of Mt. Veeder. Typical slopes within the project area range from 15% to 48%, with an averaging slope of approximately 22%. The project area generally consists of moderate to steep northwest and southwest facing slopes, with elevations ranging from approximately 255 to 635 feet above mean sea level (msl).

An unnamed blue-line stream that is a tributary to Browns Valley Creek is in the western portion of the project site. Browns Valley Creek is located approximately 0.15 miles north of the site, which ultimately drains to the Napa River located over 4 miles to the east of the project site. There are several ephemeral streams located within the project site as show in the site location maps and project plans (**Figures 1-3 and Exhibit A**).

The closest active fault to the site is the West Napa fault approximately 1.75 miles east of the site. The next closest faults to the site are the Concord/Green Valley, Rogers Creek, and the Hunting Creek-Berryessa faults approximately 10, 11, and 21 miles from the site, respectively (Gilpin Geosciences Inc., April 2020, **Exhibit F**: and Napa County GIS Faults Layers).

Numerous landslides and landslide complexes are mapped within the project site: a large landslide complex is located in the northwest portion of the site; the southern tip of the property also crosses a mapped landslide zone; within the western portion of the site there is the toe of a large dormant landslide; there are four smaller landslides along the eastern property line of the site; and, there is an active landslide adjacent to the northeast corner of the project site (Gilpin Geosciences Inc., April 2020, **Exhibit F**: and Napa County GIS Landslide Layers).

Soils in the project site have been classified according to the Soil Survey of Napa County (USDA 1978) as Bressa-Dibble complex (Soils Series #112, #113 and #114), Cole silt loam (Soils Series #118 and #119), Fagan clay loam (Soils Series #131 and #133), and Felton gravelly loam (Soils Series #136).

Existing improvements on the project site are limited to approximately 0.75 miles of dirt access roads. The vegetation alliances (or habitat types) on the project site and in the project area include coast live oak woodland, coyote brush scrub, wild oat grassland, cattail marsh, and open water (or pond) (Northwest Biosurvey Inc., August 2020, **Exhibit B**: and Napa County GIS Vegetation Layers).

- 10. Background:** The proposed project was originally designed to include 21.71 gross acres of vineyard development (with 16.91 acres of planted vineyard) but was subsequently revised to remove three (3) small vineyard blocks located in the western portion of the site and one smaller vineyard block in the easter portion due to access road development issues.

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

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

Responsible (R) and Trustee (T) Agencies

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

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 Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 28, 2020. The County received a response letter dated June 29, 2020 from the Yocha Dehe Wintun Nation on July 6, 2020 (Identification Number YD- 08212019-04) requesting that cultural monitors be present during development and ground disturbance, and that Yocha Dehe Wintun Nation's Treatment Protocol be incorporated into the mitigation measures for the project. See **Section XVIII (Tribal Cultural Resources)** for detailed discussion and analysis of the Tribe's requests.

On August 18, 2020, the County replied to the Yocha Dehe Wintun Nation indicating that the Tribe's Treatment Protocol will be incorporated into either a project specific mitigation measure or condition of approval, and closed consultation invitation because the Tribe did not request consultation. The County sent consultation closure notices to the Middletown Rancheria and to the Mishewal Wappo Tribe of Alexander Valley on August 18, 2020, because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitation was provided.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with ECPA #P20-00139-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://pbes.cloud/index.php/s/nijr4genaoYmDiR>.

- Napa Valley Vineyard Engineering Inc., February 16, 2023, Forte Vineyard Agricultural Erosion Control Plan (**Exhibit A**).
- Northwest Biosurvey, August 4, 2020, Biological Resource Assessment, Forte Vineyard Project (**Exhibit B**)
- Tom Origer & Associates, August 27, 2019, Cultural Resource Study, Forte Vineyard Project (**Exhibit C**): contents confidential.
- Napa Valley Vineyard Engineering Inc., July 15, 2020 (Rev.1), USLE Analysis, Forte Vineyard Project (**Exhibit D**)
- Napa Valley Vineyard Engineering Inc., January 7, 2021 (Rev.2), Hydrology Analysis, Forte Vineyard Project (**Exhibit E**).
- Gilpin Geosciences, Inc., April 8, 2020, Engineering Geological Evaluation and June 23, 2020, Engineering Geological Evaluation Response to Comments, Forte Vineyard (**Exhibit F**).
- Napa Valley Vineyard Engineering Inc., November 7, 2022, Water Demand and Water Availability Analysis, Forte Vineyard (**Exhibit G**)
- Site inspection conducted by Napa County Conservation and Engineering Division staff (Don Barrella, Planner III; Raulton Haye, Engineering Supervisor) June 16, 2020.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

On the basis of this initial evaluation:

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



Signature

June 28, 2023

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a-b. The project site is approximately 0.2 miles west of Partrick Road, which is a Napa County-designated scenic roadway (Napa County GIS, Scenic Corridors Layer). The proposed project, including water tanks, would not have a substantial effect on the scenic roadway because the development area is substantially screened from the road by intervening woodlands, vegetation and topography. Additionally, visual impacts related to construction equipment and activities at the project site would be short-term and temporary in nature.

Existing vineyards are located on properties within proximity (0.25-0.5 miles) of the project site and the proposed project would be consistent with land uses in the vicinity. Only two trees would be removed for project construction and a majority of the site is not readably visible from public viewpoints.

The project site is not located on a prominent hillside or a major or minor ridgeline (Napa County GIS, Ridgelines Layer) and there are no historic buildings on site. There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Therefore, for the reasons described above, the proposed project would have a less than significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops.

c. The proposed project would result in the removal of existing vegetation within the project area and the development of new vineyard. The proposed project is consistent with the Napa County AWOS land use designation and with adjacent land uses, which include other vineyards, wineries, and rural residential uses. Because only two trees would be removed and the project site is not easily visible from public viewpoints, the project would not substantially degrade the existing visual character or quality of public views of the site or its surroundings, resulting in a less than significant impact.

d. Proposed agricultural operations on the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring in the surrounding area, which includes vineyard uses and operations. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September and October), that could include nighttime activity occurring from 10 p.m. to 6 a.m. The proposed project would include sulfur applications that could occur between 4 a.m. and 7 a.m. up to 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 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
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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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The California Department of Conservation's Important Farmland Finder identifies the project site as Grazing Land. The proposed project would result in an increase in agricultural land; therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be no impact.
- b. The project site has AWOS General Plan designations and is zoned Agricultural Watershed (AW)). Therefore, the establishment of vineyard totaling approximately ±20.2 gross acres (±15.75 net acres) is consistent with project site's land use and zoning designations. The project parcel is under Williamson Act Agricultural Contract #94191, recorded February 27, 1995 Instrument #1995-004400, Napa County Recorder. The proposed project includes agricultural development and operation as defined by and allowed under the terms of the contract, and the project site would not be converted to non-agricultural use with implementation of the proposed project. Therefore, the proposed project would not conflict with its land use designations or the Williamson Act contract resulting in no impact.
- c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined in California Public Resource Code Section 4526 as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forests products, including Christmas Trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others." The project site does not contain forestland or coniferous forest (**Exhibit B** and Napa County GIS Vegetation Layer). The project site is not zoned forestland 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 does not include the construction of roadways or other infrastructure that would result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

On June 2, 2010, the Bay Area Air Quality Management District's (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act. These thresholds were designed to establish the level at which the Air District believed air pollution and greenhouse gas emissions would cause significant environmental impacts under CEQA. The thresholds were posted on the Air District's website and included in the Air District's updated CEQA Guidelines (updated May 2012)¹. The thresholds are advisory and may be followed by local agencies at their own discretion.

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

On April 20, 2023, the Bay Area Air Quality Management District (BAAQMD) published updated CEQA guidance to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans (referred to as the 2022 CEQA Guidelines)². The 2022 CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin. They contain nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and greenhouse gas impacts generated from land use construction and operational activities. Additionally, the guidelines include the new climate impact thresholds adopted by BAAQMD on April 20, 2022, using performance-based standards requiring new guidance on evaluating the climate impacts of land use projects and plans.

The BAAQMD 2022 CEQA Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide BAAQMD-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. The revised guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017). There is no construction-related climate impact threshold at this time. GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions. The thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

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

The potential impacts associated with implementation and operation of the proposed project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards

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

² <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>

established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O₃), ozone precursors oxides of nitrogen and reactive organic gases (NO_x and ROG), carbon monoxide (CO), nitrogen dioxide (NO₂), and suspended PM of ten micrometers or less and two and a half micrometers or less (PM₁₀ and PM_{2.5}). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO₂), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

BAAQMD has not officially recommended the use of its thresholds in CEQA analyses, and CEQA ultimately gives lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other factual data. BAAQMD also states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAQMD provides as a reference for determining appropriate thresholds is the BAAQMD CEQA Guidelines described above, which outline substantial evidence supporting a variety of thresholds of significance.

The thresholds of significance identified in **Table 3** are consistent with the BAAQMD CEQA Guidelines and are used to determine if an air quality impact would be significant.

In order to assess potential air quality emissions, a review of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards³ for an approximately 560-acre vineyard development, Walt Ranch Vineyard⁴ for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards⁵ for an approximately 400-acre vineyard development⁶.

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

Table 3 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Also shown in **Table 3** are the BAAQMD CEQA Guidelines draft thresholds of significance for emission of the following criteria pollutants: ROG, NO_x, PM₁₀, and PM_{2.5}.

Table 3 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO _x	PM _{2.5}	PM ₁₀
Construction Emissions				
Pounds per day: 150-acre vineyard development¹	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to 14.53
Pounds per day: 150- to 250-acre vineyard²	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development^{3,4}	4.6	42.3	5.21 ⁴	24.21 ⁴
Construction threshold	54	54	54	82
Operational Emissions				
Pounds per day: 400-acre vineyard operation¹	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard operation²	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard operation³	4.3	22.3	1.4	2.3
Operational threshold (lbs/day)	54	54	54	82
Tons per year (Metric)^{1,5}	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

¹ As identified in Circle-S EIR; ² As identified in Suscol Mountain EIR; ³ As identified in Walt Ranch EIR; ⁴ Includes dust and exhaust emissions; ⁵ Calculation based on 365 days of operation. Project emissions are anticipated to be less than identified as vineyard operations are seasonal in nature.

Sources: Circle-S Ranch Vineyard EIR 2011; Suscol Mountain Vineyard EIR 2013; Walt Ranch Vineyard EIR 2016; BAAQMD CEQA Guidelines May 2017.

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

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

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

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

Variations or similarities in emissions modeling results between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as quantities and types of vegetation to be removed, construction trips, construction equipment and duration of use/operation, and operational equipment operation and trips.

Because the proposed project's ± 20.2 gross acre vineyard (± 15.75 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less than those identified in **Table 3** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project.

Air Quality – Conditions of Approval:

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ⁷ or the PERP website⁸.

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

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

The closest school is located approximately one mile east of the project site (Browns Valley Elementary) within the City of Napa (Napa County GIS, Schools Layer). The next closest schools, Pueblo Vista Elementary and West Park Elementary, are approximately two miles to the east. The closest offsite residences to the project area are located approximately 100 to 150 feet to the south of the project site along Blue Jay Court.

During installation of the ECPA, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur approximately one to two miles from the closest schools and approximately 100-150 feet from the nearest residences, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors. Therefore, impacts would be less than significant.

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

⁸ <http://www.arb.ca.gov/portable/portable.htm>

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

Discussion

In addition to the Biological Resource Assessment (August 2020) prepared by Northwest Biosurvey (**Exhibit B**), the following Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangles, and Aerial Photos.

Northwest Biosurvey assessed biological resources on the project site on May 31 and August 23, 2019. The surveys were completed to document: biological communities; existing conditions and to determine if suitable habitat to support special-status plant or wildlife species exists; aquatic natural communities; and any special-status species that may be present onsite. The survey dates corresponded to blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project site, constituting a full, in-season, floristic-level survey pursuant to the project biologist (**Exhibit B**). The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines (CNPS, 2001; CDFW, 2018; USFWS, 1996). Plants were identified using *A Manual of California Vegetation* (Sawyer et al., 2009) and *The Jepson Manual of Higher Plants of California* (Baldwin, et al, 2012) to the taxonomic level necessary to determine whether they were rare.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project site was compiled based on data in the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2020), California Wildlife habitat Relationships System (Version 9.0), and the Napa County *Baseline Data Report* (Napa County, 2005) that may be affected by projects in the Napa and surrounding quadrangles.

The project site consists of the following biological communities (or habitat types): Coast live oak woodland, coyote brush scrub, wild oat grassland, white-root beds, cattail marsh and open water. The habitats and their acreages are shown in **Table 4**.

Table 4 – Biological Communities and Habitat Types on the Project Site

Biological Communities or Habitat Type	Approximate Pre-Project Conditions (acres) ⁹
Coast live oak	26.21
Coyote brush scrub	12.20
Wild oat grassland	58.37
White-root beds	0.07
Cattail marsh	0.34
Open water	0.07
Total	97.26

Source: Northwest Biosurvey, August 2020 (Exhibit B)

- a. **Special-Status Plants:** Based upon the surveys conducted by the project biologist, no special-status plant species are present within the development area (Exhibit B). Therefore, the proposed project would have no impact on special-status plant species.

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-3.¹⁰ Additionally, pursuant to Napa County General Plan Policy CON-13,¹¹ the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

The project as proposed would not remove special-status plants and/or populations, which is consistent with the following Napa County General Plan Conservation Element Goals and 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 new development of up to approximately ±20-acres of agriculture on the project site; Policy CON-17¹² 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.

While there are no known special-status plant species within the project area, there is the potential that special-status plants or populations may have appeared and proliferated since the date of the botanical surveys, resulting in potential impacts to special-status plants and populations that have may have appeared since the original surveys. To reduce this potential impact to a less than significant level **Mitigation Measure BR-1** would be implemented. This measure would require a floristic survey of the development areas be conducted prior to project initiation to ensure protection and minimization of potential impacts to any special-status plants or populations that may have appeared since the original survey in 2018. With implementation of **Mitigation Measure BR-1**, impacts on special status plant species would be reduced to a less than significant level.

Mitigation Measure BR-1: The owner/permittee shall incorporate the following measure into #P20-00139-ECPA-ECPA prior to approval to minimize potential impacts to special-status plant species:

- a. Prior to commencement of vegetation or earthmoving activities associated with installation of #P20-00139-ECPA, a floristic survey of the development areas shall be conducted by a qualified biologist or botanist, for any special-status plant species. Any special-status plants or populations found shall be mapped. To the fullest extent practicable, removal of special-status plants shall be avoided through adjustments to development area boundaries to avoid and provide special-status plants/populations and provide them with a minimum 25-foot buffer. In accordance with NCC Section 18.108.100, Vegetation preservation and replacement) any special-status plants/populations that cannot be avoid shall be replaced on-site at a ratio of 2:1 at locations within similar habitat. For such removal, a replacement plan shall be prepared by a qualified botanist, ecologist or the like for

⁹ 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 characters, modeling data, and rounding utilized by the various preparer's. 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.

¹⁰ Goal Con-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

¹¹ Policy Con-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to: Provide protection for habitat supporting special-status species through buffering or other means.

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

review and approval by the Director prior to commencement of vegetation or earthmoving activities. The replacement plan shall include i) a site plan showing the locations where replacement plants will be planted, ii) a plant pallet composed of the special-status plant species being removed including sizes and/or application rates: seed mixes shall not contain species known to be noxious weeds and any non-native grasses should be sterile varieties, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation schedule, vi) performance standards with a minimum success rate of 80%, and vii) a monitoring schedule for a period of at least five years to ensure success criteria are met.

Special-Status Animals: Based upon a review of the resource databases listed in **Exhibit B**, six (6) special-status animals could occur within or near the project site. White-tailed kite (*Elanus leucurus*), Coopers hawk (*Accipiter cooperii*), Yellow warbler (*Setophaga petechia*), Yellow-breasted chat, Pallid bat (*Antrozous palidus*), and American badger (*Taxidea taxus*). Additionally, a variety of native bird species with protections under the Migratory Bird Treaty Act and California Fish and Game Code may use the woodlands around the project area for nesting.

While the above described special-status species were not observed during the reconnaissance-level biological surveys, migratory birds and raptors have the potential to nest within the trees in the project areas and the woodlands adjacent to the project area. Tree removal and temporary and intermittent increases in noise levels may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. Potential direct and indirect impacts to special-status species and protected bird species would be significant.

With respect to pallid bats optimal habitat consists of open, dry habitats with rocky areas, but the bats are also found in oak savanna grasslands and in open forest and woodlands with access to riparian and open water for feeding and drinking in northern California. Foraging occurs over open country. Preferred roosts are high above the ground and inaccessible to terrestrial predators. This species is sensitive to human disturbance of roosting sites. The denser woodlands on the project site have the potential to contain habitat for pallid bats. While no potential bat habitat trees were identified within the project area; and no historic or current signs were found during the surveys indicating use by bats, there is the potential for bats to occupy the two (2) trees in the project area that would be removed, resulting in a potentially significant impact.

Regarding the American badger, while this species was not identified during the surveys of the project site conducted by the project biologist, and no evidence of species use was identified, the project site contains friable soils a habitat requirement for American badger. While this species is not anticipated to occur within the project area or site, there is the potential for the American badger to have occupied the project site after the surveys were conducted, resulting in a potential impact to this species.

To reduce potential direct and indirect significant impacts to special-status and protected bird species, bat species and animal species as a result of the project to a less than significant level, **Mitigation Measures BR-2 through BR-4** would be implemented. Implementation of these measures would reduce these potential impacts to a less than significant level.

Mitigation Measure BR-2: The owner/permittee shall revise Erosion Control Plan #P20-00139-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

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

Mitigation Measure BR-3: The owner/permittee shall revise Erosion Control Plan #P20-00139-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. Bat habitat tree removal and trimming between 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), potential 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.

Mitigation Measure BR-4: The owner/permittee shall revise Erosion Control Plan #P20-00139-ECPA prior to approval to include the following measures to minimize impacts to the American badger:

- a. A qualified biologist shall conduct a pre-construction survey for the American badger within the project area and adjacent habitat within a minimum of 50 feet from the project area. The preconstruction survey shall be conducted no earlier than 14 days prior to when vegetation removal and ground disturbing activities are to commence. A copy of the survey results shall be provided to the County Planning Division prior to commencement of work. Should ground disturbance commence more than 14 days from the survey date, surveys shall be repeated.
- b. If any occupied burrows are discovered the project area, the owner/permittee shall implement an appropriate buffer from the burrow(s), as determined by a qualified biologist and approved in writing by the County in collaboration with CDFW. If the Project cannot avoid impacts to the occupied burrow the Project shall consult with CDFW regarding next steps before proceeding and implement CDFW recommendations such as preparing and implementing an American badger relocation plan.

- b-c. Seasonal wetlands are known from a variety of topographic positions and soil types where surface waters collect and flows are reduced, or subsurface waters approach the soil surface as a rising water table or seep. The White-root bed identified on the site is also associated with wetlands. Any potential wetlands on the project site are located outside the project area and have been avoided and provided with a minimum 50-foot buffer; therefore, impacts to seasonal wetlands would be less than significant.

An unnamed blue-line stream that is a tributary to Browns Valley Creek is in the western portion of the project site. Browns Valley Creek is located approximately 0.15 miles north of the site, which ultimately drains to the Napa River located over 4 miles to the east of the project site. There are several ephemeral streams located within the project site (**Figures 1-3 and Exhibit A**). The proposed project has been designed to avoid ephemeral streams and provide them with setbacks greater than the required minimum of 35-feet, typically a +50-foot setback buffer is provided from ephemeral streams. The County Definitional (Blue-line) Streams in the area have been provided with greater setbacks than the minimum required which range from 85 feet to 150 feet, pursuant to NCC Section 18.108.025(B), typically a +400-foot setback buffer is provided from Blue-line streams. The proposed project has also been designed to maintain existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soils loss or runoff as compared to existing conditions). Therefore, the proposed project would not result in significant impacts to these drainages, wetlands, or any riparian habitat or other sensitive natural community.

- d. The project area does not occur within any of the wildlife corridors identified as a CalWild Linkage shown in Map 4-2 of the Napa County BDR. However due to the site's location between dense residential development to the east and existing vineyard development to the west, the property forms a critical habitat linkage between tracts of natural habitat to the north and south. Due to the topography of the site movement corridors are likely to occur in the lower north-south terrain along the western half of the property associated with the riparian habitat along the Browns Valley Creek tributary which passes from north to south through the western portion of the property. This area which runs along the western edge of the property provides an important movement corridor between woodland habitats in this region.

Any project component that would effectively block wildlife movement along this corridor would result in habitat fragmentation. Additionally, the open grassland habitats through the central of the project site allow free movement between woodlands to the east and west. Blocking this movement with continuous vineyard block development would eliminate this movement through the property.

The proposed project has been designed to avoid the tributary to Browns Valley Creek and provide it with an approximate 400-foot setback buffer to maintain this wildlife movement corridor. Because new wildlife exclusion fencing would encompass each the seven (7) development areas around their peripheries, the open grassland habitats through the central of the project site would also be maintained to allow wildlife movement and use between woodlands to the east and west of the site.

Because wildlife movement and use within the project site has been maintained through project design, and wildlife exclusion has been sited to encompass each individual development area, the proposed project and associated wildlife exclusion fencing is not anticipated to

reduce wildlife use or interfere with wildlife movement in the area. Therefore, potential impacts to wildlife movement because of the project would be less than significant.

Furthermore, because wildlife nursery sites were not identified in the project site or area, there would be no impacts to wildlife nursery sites.

To ensure that wildlife exclusion fencing is installed and maintained in a manner consistent with the proposed ECPA and CDFW recommendations the following condition of approval would be incorporated should the proposed project be approved.

Fencing – Condition of Approval:

- New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
- Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
- Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P20-00139-ECPA shall be strictly prohibited, and would require County review and approval to ensure the modified wildlife exclusion fencing location or design would not result in potential impacts to wildlife movement.

- e. 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 woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habit, slope stabilization, soil protection and species diversity. Policy CON-24c¹³ specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible, replacement of oak woodland at a 2:1 ratio is required. Removal of more than one (1) acre of oak woodland for every two (2) acres preserved would be considered a significant impact.

Based on the Biological Resources Assessment (**Exhibit B**), the project site contains 26.21 acres of oak woodland and associated vegetative cover canopy. The project would result in the removal of two (2) oak trees encompassing approximate 0.17-acres of oak woodland and associated cover canopy. To maintain two acres of preserved woodland for each acre impacted, and compliance with Policy CON-24c 2:1 preservation ratio, up to approximately 17 acres could be converted to vineyard. The proposed project would retain/preserve 26-acres (or 99.3%) of the sites oak woodland; therefore, the project is consistent with Policy CON-24c. The acreages of each biological community (or habitat type) within the project site and development area are listed in **Table 5**.

Table 5 – Retention of Biological Communities with Proposed Project¹⁴

Biological Communities	Total Acres in the Project Site	Total Acres in Proposed Vineyard Blocks	Total Retention %
Coast live oak	26.21	0.17	99.7%
Coyote brush scrub	12.20	2.27	81.4%
Wild oat grassland	58.37	17.79	69.52%
White-root beds	0.07	0	100%
Cattail marsh	0.34	0	100%
Open water	0.07	0	100%

Source: Northwest Biosurvey, August 2020 (**Exhibit B**)

NCC Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the AW zoning district retain 70% of the vegetation canopy cover¹⁵ based on the on-site canopy present on June 16, 2016. The project proposes to remove ±0.17-acres and retain 26.04-acres (or 99.3%) of the vegetation canopy cover (i.e., oak woodland) that existed on the subject parcel in 2016. Thereby, exceeding the 70% retention requirement found in NCC Section 18.108.020(C).

¹³ Policy CON 24(c): Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ration when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

¹⁵ 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).”

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 AW 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 Section 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. If this cannot be reasonably accomplished, then onsite replacement and/or preservation may occur on slopes up to 50%, in areas that result in the highest biological and water quality protections. Further, 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.

While the project proposes to retain approximately 26.04-acres (or 99.7%) of the vegetation canopy cover¹⁶, exceeding the 70% retention requirement, the project would not be consistent with the 3:1 tree preservation ratio, in that approximately 0.5 acres of vegetation canopy cover would need to be preserved to comply with the 3:1 ratio prescribed by NCC Section 18.108.020(E). Inconsistency with NCC Section 18.108.020(E) is considered a potentially significant impact. To achieve consistency with NCC 18.108.020(E) and reduce this potential impact to a less than significant level, as well as reduce potentially significant cumulative impacts on oak trees and oak woodlands and associated cover canopy and habitat, **Mitigation Measure BR-5** will be implemented.

Mitigation Measure BR-5 will require that a minimum of 0.51-acres of avoided vegetation canopy cover be permanently preserved, or otherwise enforceable restricted, with a perpetual protective easement or perpetual deed restriction, and that the preserved vegetation canopy cover occurs on land with slopes of less than 30% slopes and outside of aquatic resource setbacks. Regarding the two (2) oak trees to be removed, **Mitigation Measure BR-5** will also require their replacement at a 3:1 ratio to effectively replace oak trees and associated woodland and canopy cover removed, consistent with NCC Section 18.108.020. Additionally, requiring preserved vegetation canopy cover occur lands with a slope of less than 30% and outside of aquatic resource setbacks, and replacing removed trees at a 3:1 ratio will offset potential GHG Emissions as discussed in **Section VII (Greenhouse Gas Emissions)**.

With implementation of **Mitigation Measures BR-1** through **BR-5** and standard conditions 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.

Mitigation Measure BR-5: The owner/permittee, prior to approval, shall revise #P20-00139-ECPA to include the following provisions to reduce potential impacts to oak trees, oak woodland and associated vegetation cover canopy, and to achieve consistency with the Napa County Conservation Regulations 18.108:

- a. A Preservation Area totaling at least 0.51-acres of oak woodland and associated vegetation cover canopy located outside of the boundaries the proposed project area shall be designated in the ECPA plans and be placed in permanent protection through a deed restriction or conservation 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 conservation easement prior to construction, or within 60 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property; and the preservation area shall include portions of the property that are not already subject to development restrictions (i.e., within creek setbacks or on slopes over 30%). The area to be preserved shall be determined and approved from Napa County, and if necessary, in consultation with a qualified biologist with knowledge of the habitat and species of the project site.
- b. Revise #P20-00139-ECPA to include an Oak Tree Replacement Plan replacing the two (2) oak trees being removed at a 3:1 ratio. The Replacement Plan shall be submitted prior to construction or within 60 days of project approval, whichever comes first, for County for review and approval and shall include: i) a site plan showing replanting area(s) with similar habitat of the trees being removed, ii) a plant pallet that includes tree species and minimum plant/container size of 1 gallon iii) planting notes and details, and plant protection measures, iv) invasive species removal and management specifications, v) a monitoring schedule that includes a minimum of 5 years, vi) a performance standard with a minimum success rate of 80%. Replacement trees shall be installed upon commencement of vegetation removal and earth disturbing activities associated with vineyard development under #P20-00139-ECPA. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.
- c. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the project area (typically within approximately 50-feet of the project 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

¹⁶ Based on County GIS mapping analysis approximately 1-acre of the oak vegetation canopy cover occurs on areas under 30% slope and outside of stream setbacks.

disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.

- d. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the vineyard conversion area.
- e. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P20-00139-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.
- 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

a-b. The cultural resources study for the proposed project (Tom Origer & Associates, August 27, 2019) identified no significant historical/cultural resources within the project site or project area.

While no cultural resources were found within the development area, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, the proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidentally, resulting in an anticipated less than significant impact.

As disclosed in **Section 12** of this Initial Study (**California Native American Tribal Consultation**), the County received a response letter from the Yocha Dehe Wintun Nation (ID# YD- 08212019-04) requesting that cultural monitors be present during development and ground disturbance, and that Yocha Dehe Wintun Nation's Treatment Protocol be incorporated into the mitigation measures or conditions for the project. See **Section XVIII (Tribal Cultural Resources)** for details and significant determination specific to this request.

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

Cultural Resources – Conditions of Approval:

Discovery of cultural, historical or archaeological resources, or human remains during construction, grading, or other earth moving activities:

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

Archaeologists has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.

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

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

Discussion

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

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

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

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

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

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

obstruct a state or local plan for renewable energy or energy efficiency, or impede progress towards achieving goals and targets, and impacts would be less than significant.

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

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.
 - i) The project site is not located on an active fault or within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. The closest active fault to the site is the West Napa fault approximately 1.75 miles east of the site. The next closest faults to the site are the Concord/Green Valley, Rogers Creek, and the Hunting Creek-Berryessa faults approximately 10, 11, and 21 miles from the site, respectively (Gilpin Geosciences Inc., April 2020, **Exhibit F**; and Napa County GIS Faults Layers). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) While the project site is in an area that may be subject to seismic ground shaking potential during an earthquake, the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.

- iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
- iv) Landslides and landslide complexes are mapped withing the project: a large landslide complex is located in the northwest portion of the site; the southern tip of the property also crosses a mapped landslide zone; within the western portion of the site there is the toe of a large dormant landslide; there are four smaller landslides along the eastern property line of the site; and, there is an active landslide adjacent to the northeast corner of the project site (Gilpin Geosciences Inc., April 2020, **Exhibit F**). While there are landslides mapped withing the project site, the project has been designed to provide minimum 50-foot setback buffers from identified landslides consistent with Project's Geotechnical Engineer recommendations. Given identified landslides have been avoided, and that this area is presumed to be stable for agricultural development, the proposed project is not anticipated to result in landslides or unstable areas; therefore, impacts would less than significant (also see question c below for additional discussion regarding slope stability and landslides).

- b. Soils in the project site have been classified according to the Soil Survey of Napa County (USDA 1978) and the project engineer as Bressa-Dibble complex (Soils Series #112, #113 and #114), Cole silt loam (Soils Series #118 and #119), Fagan clay loam (Soils Series #131 and #133), and Felton gravelly loam (Soils Series #136) (**Exhibit A**).

Installation and implementation of the ECPA would involve vegetation removal and earthmoving activities within the proposed vineyard areas. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) 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 80% as specified in the ECPA. For the first three years, the cover crop may be disked or otherwise cultivated after April 1; after the three years the permanent no-till cover crop would be established. The cover crop provides the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by Napa Valley Vineyard Engineering (**Exhibit D**), the proposed conversion of approximately 20.2 gross acres of woodland and grassland to vineyard is anticipated to reduce soil loss, or surface erosion, within the project area as compared to existing conditions (**Table 6**). Under existing conditions, the annual soil loss is anticipated to average 34.13 tons per acre per year across the entire project site depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 31.18 tons per acre per year, a reduction of approximately 2.95 tons per acre per year or approximately 8.6% as compared to existing conditions.

Table 6 – USLE Soil Loss Analysis

Vineyard Block	Pre-project Soil Loss (tons/acre/year)	Post-project Soil Loss (tons/acre/year)	Difference	Percent Change (approximate)
A	2.96	2.91	-0.05	-1.7%
B1	2.71	2.71	0.0	0%
B2	2.82	2.74	-0.08	-2.8%
C	3.44	3.33	-0.11	-3.2%
D1	3.08	2.01	-1.07	-34.7%
D2	2.29	2.23	-0.06	-2.6%
F	3.45	2.85	-0.60	-17.4%
G	1.16	0.77	-0.39	-33.6%
K	3.01	2.95	-0.06	-2.0%
M	2.20	1.99	-0.21	-9.5%
N	2.81	2.67	-0.14	-5.0%
O	1.26	1.25	-0.01	-0.8%
P	1.65	1.54	-0.11	-6.7%
Q	1.29	1.23	-0.06	-4.7%
Total	34.13	31.18	-2.95	-8.6%

Source: Napa Valley Vineyard Engineering, July 15, 2020 – 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 rolling dips, straw wattles, fiber rolls, and other practices as needed.

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

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

The following conditions shall be incorporated by referenced into Erosion Control Plan #P21-00066-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to, rolling ditches, fiber rolls, and permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than October 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan #P21-00066-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have been installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no-till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80% within the vineyard blocks and the associated vineyard avenues. Cover crop may be disked between rows and sprayed under vines or otherwise cultivated after April 1; after three years a permanent, no-till cover shall be established. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

For these reasons, the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project site, resulting in no impact to soil erosion, soil loss, and sedimentation. Also see **Section IX (Hazards and Hazardous Materials)** and **Section X (Hydrology and Water Quality)** for additional disclosures related to water quality. Additionally, as shown in the soil loss modeling following development, overall soil loss is anticipated to be less than pre-development conditions. This is consistent with General Plan Conservation Element Policy CON-48, which requires post-development sediment erosion conditions (i.e., soil loss) be less than or equal to pre-development conditions.

- c. As discussed above, the project area is not located in an area prone to ground failure or liquefaction. While there are landslides identified on the project parcel (including two ancient and two active landslides, as discussed above), The project as proposed is designed to avoid the active landslides with a 50' buffer. The proposed project identifies the soil types in the project area and addresses any potential soil instability. Therefore, impacts from landslides, lateral spreading, subsidence, liquefaction or collapse would be less than significant.
- d. Soils within the project area consist of the following: Bressa-Dibble complex (Soils Series #112, #113 and #114) which exhibit a low to moderate shrink-swell potential, Cole silt loam (Soils Series #118 and #119) which exhibits a moderate to high shrink-swell potential, Fagan clay loam (Soils Series #131 and #133) which exhibits a moderate to high shrink-swell potential, and Felton gravelly loam (Soils Series #136) which exhibits a moderate shrink-swell potential. 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 a less than significant impact associated with expansive soils.
- e. The proposed project involves the development of a vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur regarding soils supporting septic tanks or alternative wastewater disposal systems.

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

Paleontological Resources – Conditions of Approval:

Discovery of paleontological resources during construction, grading, or other earth moving activities:

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).¹⁷ The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204). There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project’s lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

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

The BAAQMD 2022 CEQA Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide BAAQMD-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. The revised guidelines supersede BAAQMD’s previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017).

Napa County has been working to develop a Climate Action Plan (CAP) for several years. The 2012 Draft CAP (March 2012) recommended using the emissions checklist provided therein, on a trial basis, to determine potential GHG emissions associated with project development and operation. At the December 11, 2012, Napa County Board of Supervisors (BOS) hearing, the BOS considered adoption of the proposed CAP. In

¹⁷ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>

addition to reducing Napa County's GHG emissions, the proposed plan was intended to address compliance with CEQA for projects reviewed by the County and to lay the foundation for development of a local offset program. While the BOS acknowledged the plan's objectives, it requested that the CAP be revised to better address transportation related GHG emissions, to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that BMPs be applied and considered when reviewing projects until a revised CAP is adopted to ensure that projects address the County's policy goal related to reducing GHG emissions. In addition, the BOS recommended utilizing the emissions checklist and associated carbon stock and sequestration factors in the Draft CAP to assess and disclose potential GHG emissions associated with project development and operation pursuant to CEQA.

In July 2015, the County recommenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as methods, emission factors, and data sources); ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable state requirements, and iv) result in a functional and legally defensible CAP. As the part of the first phase of development and preparation of the CAP, the County released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast on April 13, 2016. This initial phase included: i) updating and incorporating the County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. 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 <https://www.countyofnapa.org/2876/Current-Projects-Explorer>. The County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

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

Regarding operational emissions, as part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA *Guidelines* revisions. The CEQA *Guidelines* and the OPR Technical Advisory concluded that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact.

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

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

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

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

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

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO₂), methane, ozone, 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, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD’s CEQA Guidelines. In this case CO₂ is used as the reference atom/compound to obtain atmospheric carbon CO₂ effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁸

One-time “Construction Emissions” associated with vineyard development projects include: i) the carbon stocks that are lost or released when site vegetation is removed, including any woody debris and downed wood; ii) underground carbon stocks, or soil carbon, released when soil is ripped in preparation for vineyard development and planting (referred to as Project Site Emissions below); and iii) emissions associated with the energy used to develop and prepare the project site and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below).

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

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

Construction Emissions:

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁹ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 20.23 gross acres of vineyard development would be approximately 190.2 MT CO_{2e} (20.23 acres multiplied by 9.4 MT CO_{2e}).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 9.85 acres of existing vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the GHG Emissions Checklist and associated carbon stock factors developed as part of the 2012 Draft CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the development area, total carbon stocks for the development area are estimated to be approximately 77.9 MT C or approximately 286.0 MT CO_{2e} (**Table 7**).

¹⁸ “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).

¹⁹ As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.

Table 7 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Storage/Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO _{2e}
Grassland	17.79	1.4	24.9	91.4
Shrubland (Chaparral)	2.27	16.2	36.8	135.1
Oak Woodland	0.17	95.1	16.2	59.5
Total			77.9	286.0

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, April 2023.

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20 to 25% while others have suggested 50%.²⁰ Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 208.8 MT CO_{2e} (Table 8).

Table 8 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Loss/Emission per Acre (MT C/acre) ¹	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO _{2e}
Grassland	17.79	0.80	14.2	52.1
Shrubland (Chaparral)	2.27	12.1	27.5	100.9
Oak Woodland	0.17	89.6	15.2	55.8
Total			56.9	208.8

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division April 2023.

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor it is anticipated that Operational Equipment Emissions associated with the proposed 20.23-acre agricultural development would be approximately 13.6 MT CO_{2e} (20.23 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 CO₂ acre per year, while grasslands, shrublands and developed are essentially zero. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 1.27 MT C per year or 4.7 MT CO_{2e} per year.²¹

Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops, which are also photosynthetic plants, tends to result in less soil CO₂ loss from vineyard soils. Carbon sequestration loss would be further offset by the proposed vineyard, which would likely act as a sink for atmospheric CO₂, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. In addition to vines, the sequestration of atmospheric carbon is also achieved by the soil between vine rows through cover-cropping.

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 399.0 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 18.3 MT CO_{2e} per year (Table 9).

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

²¹ 0.17 acres of oak woodland times 0.425 MT C = 0.07 MT C, and 20.06 acres of grassland times 0.057 MT C = 1.2, totaling 1.27 MT C

Table 9 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of CO _{2e}		Annual Ongoing Emissions in Metric Tons of CO _{2e}	
Source	Quantity	Source	Quantity
Vehicles and Equipment	190.2	Vehicles and Equipment	13.6
Vegetation and Soil	208.8	Loss of Sequestration	4.7
Total	399.0	Total	18.3

Source: Napa County Conservation Division August 2022

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 399.0 MT CO_{2e} by considering the size of the proposed vineyard in relation to projected vineyard development in the County. The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008) projected 12,500 acres of new vineyard development in the County between 2005 and 2030. The County concluded in the General Plan EIR that emissions from all sources over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Because this determination was based on emissions from all sources, not just agriculture, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts.

Pursuant to Section 15183(a) of the California Code of Regulation, projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the proposed project or its site. Further, the BAAQMD update to the thresholds of significance do not include construction-related climate impact thresholds (April 2022). GHG emissions from construction represent a very small portion of a project’s lifetime GHG emissions, and the updated thresholds for land use projects were designed to address operational GHG emissions, which represent the vast majority of project GHG emissions.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than 0.2% of the vineyard development anticipated in the General Plan EIR. The proposed project also contains measures to reduce and/or offset emissions from vineyard development and vineyard operations such as maintaining a permanent no-till cover crop density of a minimum 80%, vegetated vineyard avenues, and the maintenance and establishment of grape vines. These measures in conjunction with the Air Quality conditions of approval (detailed in **Section III [Air Quality]**) would further reduce potential GHG air quality impacts associated with construction and ongoing operation of the proposed project. For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a “considerable” contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 18.3 MT CO_{2e} per year. As stated above, the updated BAAQMD thresholds of significance for land use projects are qualitative, with no “bright-line” (quantitative) level below which to mitigate. Projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal. 4th 204).

As disclosed above and in **Section IV (Biological Resources)**, the proposed project would result in the removal of two trees that encompass approximately 0.17-acres of woodland and associated vegetative canopy cover. Overall, there is approximately 26.21-acres of oak woodland and associated vegetation cover canopy in the project parcel; therefore, the project would retain approximately 99.3% of the woodlands vegetative cover canopy on the parcel.

With implementation of **Mitigation Measure BR-5**, the project would result in the permanent preservation of approximately 0.51-acres of oak woodland and vegetation cover canopy, that is located outside of stream setbacks and on land with slopes less than 30%, and the planting of six (6) trees to replace the two (2) oak trees being removed. Therefore, the loss in carbon sequestration from the proposed removal of trees is adequately offset after incorporation of **Mitigation Measure BR-5**, by permanently protecting from development three times the amount of lost carbon sequestering oak woodland, which is located on developable land, and replacing individual oak tree removal a 3:1 ratio. Therefore, the loss in carbon sequestration from the proposed tree removal is more than offset after incorporation of **Mitigation Measure BR-5**, by permanently protecting from development three times the amount of lost carbon sequestration. The loss in carbon stock of the grassland would be offset by the planting of new vineyard in the development area.

Specific to grassland, the loss in carbon stock of the grassland would be offset by the planting of new vineyard in the development area. The CAP estimates one acre of vineyard has an above-ground carbon stock of 1.2 MT C/acre and the soil carbon in vineyards is estimated at 34 MT C. Additionally, the use of cover crops tends to reduce carbon dioxide loss from vineyard soils.

Therefore, conversion of woodland and grassland to vineyard in conjunction with **Mitigation Measure BR-5** is anticipated to result in either a comparable or increased carbon storage on the site and would be consistent with the State's long-term climate goals.

Further, as stated above, per the OPR Technical Advisory, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact. As detailed in the Project Description (Section 8) and Section XVII (Transportation), vineyard construction could generate up to 30 round trips, typical vineyard operations could generate up to 12 round trips a day during the days these activities occur, and peak operational activity (pruning and harvest) could generate up to 20 round trips a day. These trips would generally occur on a temporary and seasonal basis. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less than significant impacts related to operational GHG emissions are anticipated.

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

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

Discussion

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

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

The National Resource Conservation Service 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).

During construction equipment and hazardous materials would be located/stored within the staging area in Block G. Onsite storage of hazardous materials may occur once the vineyard is developed, which would occur within the project area. Any chemical mixing or washing would occur in the vineyard/project.

Streams and wetlands delineated in the project site are shown in **Exhibits A and B**. The closest wetlands is located over 200 feet from the project area. The closest ephemeral streams to the project area are provided with +50-foot buffers, and the County Definitional (Blue-line) Stream has been provided with +350 foot setbacks, well in excess of the minimum required which ranges from 85 feet to 150 feet, pursuant to NCC Section 18.108.025(B).

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) the proposed project would maintain buffers of at least 50 feet from potential wetlands; ii) the proposed project would provide setbacks buffers of at least 50 feet from ephemeral and definitional streams in conformance with code provisions; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions of approval that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. Impacts related to routine use, transportation, and application of hazardous materials described above are anticipated to be less than significant. The following conditions of approval would be implemented to reduce potential accidental release of hazardous materials, if the project is approved:

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

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

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

- c. The closest school is located approximately 1 mile east of the project site (Browns Valley Elementary) within the City of Napa (Napa County GIS, Schools Layer). The next closest schools, Pueblo Vista Elementary and West Park Elementary, are approximately 2 miles to the east. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). Therefore, no impact would occur.
- e. No portion of the project site is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.
- f. During construction, there would be negligible numbers of workers visiting the project site, approximately 10 to 20, on a temporary basis to implement the ECPA and install vineyard. Approximately 10 to 20 workers would also visit the site on a seasonal basis for subsequent vineyard operations during peak seasonal activities such as harvest and pruning. 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 Responsibility Area identified as having moderate fire severity (CalFire 2007 - <https://egis.fire.ca.gov/FHSZ/>). However, the risk of fire in vineyards is low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall

reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and the impact would be less than significant.

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

Discussion

The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources. 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.”²²

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well (or approval of an alteration to an existing well) in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin, that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. Because the project contains an existing well which is not being altered, Executive Order N-7-22 does not apply.

On March 28, 2022, August 9, 2022, and November 8, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel’s groundwater allocation to 0.3 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

²² 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.

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. Although the Governor, through Executive Order No. N-5-23, rolled back some of the drought emergency provisions in late March 2023, due to current water conditions, the Governor's Emergency Order N-7-22 remains in place and the remaining criteria for the County's interim actions and procedures also remain. On May 30, 2023, the Napa County Board of Supervisors terminated the Local Emergency due to the 2021-2022 drought but acknowledged that there are still adverse conditions that will continue to affect the Napa Valley groundwater subbasin and the need to continue groundwater management efforts including the interim actions and procedures still exists.

Almost the entirety of the project site and project area is located in the Browns Valley Creek Drainage, the southern tip of the project site and approximately 0.53 acres of the project area is located in the Napa River Lower Napa City Reach Drainage. An unnamed blue-line stream that is tributary to Browns Valley Creek is in the western portion of the project site. Browns Valley Creek is located approximately 0.15 miles north of the site, which ultimately drains to the Napa River located over 4 miles to the east of the project site. There are several ephemeral streams located within the project site as show in the site location maps and project plans (**Figures 1-3** and **Exhibit A**).

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

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P20-00139-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

- b. The County requires all ECPA applicants to complete necessary water analyses in order to document that sufficient water supplies are available for a proposed project.).

A Water Availability Analysis (WAA) was prepared in order 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 (Napa Valley Vineyard Engineering Inc., November 7, 2022 - **Exhibit G**). The WAA estimates the onsite groundwater recharge, overall availability, and existing and proposed groundwater use in order to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Document adopted by the County May 12, 2015.

The proposed vineyard would be irrigated via a drip irrigation system using groundwater supplied by two (2) proposed wells on the project site. No frost protection or heat protection is proposed as part of the project. Further, no surface water would be used to irrigate the vineyard and no water rights are associated with the pond on the project site.

The project proposes approximately 15.75 net planted acres of new vineyard with no other reasonably foreseeable future uses that would rely on groundwater on the subject parcel. The proposed vineyard is anticipated to utilize up to 0.5 AF/yr. per acer of planted vineyard for an overall use of up to approximately 7.8 AF/yr.

A WAA that includes a Tier 2 analysis (Well and Spring Interference Criterion) is not necessary for this project because there are no known non-project wells located within 500 feet of the project well (**Exhibit G**).

The proposed project wells would be located outside of the 1,500-foot buffer of nearby "Significant Streams" (Napa County GIS Significant Streams and Significant Streams 1,500ft buffer layers). The closest Significant Streams are over 1,850 feet and over 2,600 feet from the proposed wells. Therefore, the project is not subject to a Tier 3 analysis (**Exhibit G**).

Groundwater Recharge: Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the parcel 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 (**Exhibit G**), which uses an average annual rainfall of 26.58 inches per year (in/year) over the approximately 95-acre project site's land area available for recharge and an 11% deep percolate recharge rate, estimates the average annual groundwater recharge of project site to be approximately 23.2 AF/year (**Exhibit G**).

The average annual rainfall utilized in the recharge analysis includes precipitation data over a recent 10-year span (2011 to 2021) that includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions. Further, the project's WAA conservatively utilizes an average rainfall/precipitation rate that appropriately represents more recent climatological conditions, and also results in a more conservative estimate of potential recharge during dry years, in that it utilizes perception data from the immediate past.

The post-project site is estimated to have an annual future groundwater demand of 7.8 AF/year, which is below the estimated average annual recharge volume of 23.2 AF/year identified in the WAA.

Considering: i) anticipated annual water use of the proposed project of approximately 7.8 AF/year is well below the anticipated average annual groundwater recharge rate of approximately 23.2 AF/year; ii) there are no off-site wells or springs within 500 feet of the proposed project wells, iii) there are no significant streams within 1,500 feet of the proposed project wells, iv) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County, and v) the standard Groundwater Management condition below (if approved), the proposed project is anticipated to result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Groundwater Management, Wells – Conditions of Approval:

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. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

In order to support the County’s groundwater monitoring program, well monitoring data as discussed above shall be provided to the County if the 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.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Erosion Control Plan #P20-00247-ECPA would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the owner/permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Code and to protect public health, safety, and welfare.

- c. Earthmoving activities have the potential to alter the natural pattern of surface runoff, which could lead to areas of concentrated runoff and/or increased erosion. The conversion of existing vegetation to vineyard would alter the composition of the existing land cover and infiltration rates, which could affect erosion and runoff. The proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of impervious surfaces that would concentrate runoff.

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include establishment of a no-till cover crop with vegetative cover density of 80% (including vegetated avenues and turnaround avenues), and the annual application of straw mulch cover on all disturbed areas at a rate of 4,000 pounds per acre. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibit E** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include waterbars, diversion ditches, drop inlets, subsurface drainlines, and attenuation basis with associated outfalls and energy dissipators. These features are not anticipated to significantly alter the exiting topography or drainage patterns of the project site, or direct surface flows into other watersheds/drainages. As discussed in **Section VII (Geology and Soils)**, erosion control features would result in a reduction in soil loss as compared to existing conditions. A Hydrology Analysis for the proposed project was prepared by Napa Valley Vineyard Engineering (January 2021 - **Exhibit E**). The Hydrology Analysis utilized the HydroCAD model to conclude that there would be a slight decrease in peak flows for the project watersheds as compared to existing conditions (**Table 10**).

Table 10 –Hydrologic Modeling Calculations Results: Runoff Rates

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)					
	2-year	5-year	10-year	25-year	50-year	100-year
Watershed A						
Pre-project conditions	5.71	9.14	12.12	16.73	20.35	24.36
Post-project conditions	5.66	8.90	11.96	16.53	20.16	24.03
Watershed B						
Pre-project conditions	2.69	4.31	5.72	7.90	9.60	11.50
Post-project conditions	2.69	4.31	5.72	7.90	9.60	11.50
Watershed C						
Pre-project conditions	8.14	13.12	16.92	24.16	29.43	35.28
Post-project conditions	7.92	12.74	13.46	23.64	28.95	34.74

Watershed Da						
Pre-project conditions	2.30	3.73	4.98	6.92	8.44	10.13
Post-project conditions	2.22	3.59	4.78	6.77	8.32	9.97
Watershed Db						
Pre-project conditions	1.89	3.16	4.28	6.02	7.40	8.95
Post-project conditions	1.89	3.12	4.19	5.86	7.17	8.93
Watershed Dc						
Pre-project conditions	3.64	5.99	8.04	11.26	13.78	16.60
Post-project conditions	3.59	5.91	7.94	11.21	13.73	16.54
Watershed Dd						
Pre-project conditions	2.96	4.80	6.41	8.92	10.89	13.07
Post-project conditions	2.91	4.72	6.28	8.72	10.74	12.98
Watershed E						
Pre-project conditions	2.72	4.41	5.88	8.18	9.97	11.98
Post-project conditions	2.72	4.41	5.88	8.18	9.97	11.98
Watershed F						
Pre-project conditions	0.49	0.78	1.04	1.43	1.74	2.08
Post-project conditions	0.47	0.75	1.01	1.40	1.70	2.04

Source: Napa Valley Vineyard Engineering, January 2021 (Exhibit E)

The proposed project would not increase runoff flow rates, consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be greater than predevelopment conditions. Therefore, the proposed project would have a less than significant impact with respect to alterations of existing drainage patterns of the site or area that would result in increased runoff, or considerable on or offsite erosion, siltation, or flooding.

The project site is not located in an area of a planned stormwater drainage system, nor is it not directly served by a stormwater drainage system. As discussed above, no overall increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. 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.²³ Furthermore, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan will be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources) and IX (Hazards and Hazardous Materials)**, buffers provided in the ECPA to area wetlands and watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact on or offsite water resources. Because the proposed project as designed is not expected to increase overall runoff rates or decrease times of concentration in relation to existing conditions (as discussed in question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

²³ 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)**.

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 2.95 tons/year, have no negative effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

Water Quality – Condition of Approval:

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

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

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

Discussion

- a. The project site is in a rural area of Napa County located on the interface between dense residential development to the east within the City of Napa and Agricultural Watershed lands to the west. The proposed vineyard conversion project and subsequent operation is consistent with surrounding land uses to the north, south and west and would not physically divide an established community and no impact would occur.
- b. The project site is zoned AW (Agricultural Watershed) and has a land use designation under the Napa County General Plan as AWOS (Agricultural Watershed and Open Space). Surrounding land uses to the north, south and west consist predominantly of agricultural land, rural residential, and undeveloped land. Surrounding parcels to north, south and west are zoned Agricultural Watershed in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 2.95 tons per year and maintain or slightly reduce runoff rates and characteristics as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain or reduce runoff rates and characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BR-1 through BR-5** is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through

evaluation of biological resources. A Biological Resource Assessment was prepared for the proposed project. The proposed project as proposed would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the project site. With implementation of **Mitigation Measures BR-1** through **BR-5** potential impacts to special-status species and protected bird species would be avoided. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that, impacts to special-status species and their habitat can be avoided.

- With implementation of **Mitigation Measures BR-1** through **BR-5**, and the fencing and tree/woodland conditions of approval, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- With implementation of **Mitigation Measures BR-1** through **BR-5** and the fencing conditions of approval, the proposed project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- The proposed project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resource Assessment was prepared for the proposed project (**Exhibit B**).
- The proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands, because the proposed project avoids wetlands within the project site with a minimum 50-foot buffer.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. The project design and fencing locations, with incorporation of the fencing conditions of approval, would not result in the impairment of wildlife movement.
- 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 Erosion and Runoff Control Measures conditions of approval, the proposed project would reduce soil loss and sedimentation, and results in no changes or slight reductions in runoff rates and characteristics.
- The project as proposed, with implementation of standard conditions, is consistent with **Conservations Policy CON-53** and **CON-53.5**, which in part considers the capacity and adequacy of the project's water supply system, to assist in providing for an adequate, long-term supply of ground for agriculture, conservation, domestic, industrial, and recreational uses.
- 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 and consistent with Policy CON-65b. Furthermore, with implementation of **Mitigation Measure BR-5**, which provides for the permeant protection of oak woodland and associated vegetation canopy cover and the replacement of individual trees removed, potential impacts would be further reduced.
- 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 implementation of identified the mitigation measures and conditions of approval, would not be in conflict with applicable County regulations, policies, or goals resulting in an anticipated less than significant impacts 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay

Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Napa Quarry, located over five miles east/southeast of the project site. Proposed site improvements and development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped, agriculture (planted with vineyards), and contain wineries. The nearest residences are located approximately 100 to 150 feet from a portion of the project area. Additionally, other properties in the immediate area contain vineyards. Activities associated with installation of the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer and tractor with grader. **Table 11** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 11**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 11 – Construction Equipment Noise Emission Levels

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

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

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

Table 12 – Estimated Distance to dBA Contours from Construction Activities ¹

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be between approximately 75 and 90 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 (Total 1979 and Napa County Baseline Date Report, Version 1, November 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. **Table 13** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 13 – Estimated Distance to dBA Contours from Farming Activities ¹

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

¹Based on a source noise level of 84 dBA

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

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

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of approximately 75 to 90 dBA, noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less than significant impact on ambient noise levels of the area.

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

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

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. POPULATION AND HOUSING. Would the project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Discussion

- a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of vineyard. It does not involve the construction of new homes, businesses, roads, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of workers to the project site on a temporary basis, and

ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the proposed project vicinity or greater region, either directly or indirectly. No impact would occur.

- b. The proposed project would not displace any existing housing or people and it does not involve the construction of new homes. Therefore, no impact would occur.

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

Discussion

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

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

Discussion

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

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

Discussion

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

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

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

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

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

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

Currently, the project site is undeveloped. The project site is accessed from an existing dirt road that provides access to the project site and project area from Partrick Road located 0.15 miles north of the site. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to 20 vehicle round trips per day during construction. Up to two truck trips would deliver and remove heavy equipment generally occurring during the first and last four weeks of construction. Typical construction equipment would include a tractor with grader and a bulldozer. Pruning would occur between January and February for up to approximately 15 days of the year and is anticipated to require work crews of between 10 and 20 employees. Weed control would occur between March and August (outside of the pruning months) up to two times a year and would require up to 10 workers. Harvest would occur up to 30 days during the year and is anticipated to require between 10 and 20 workers anticipated to generate between 10 and 20 round trips (including grape haul trucks/trips). Up to 12 round trips per day would occur seasonally during typical operations. Vehicular equipment for ongoing vineyard maintenance is anticipated to include a tractor with trailer, ATVs, and passenger vehicles and/or light 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, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

As indicated above, the TIS Guidelines provide a screening criterion that could be used to determine whether a VMT analysis is warranted for small projects, which are defined as projects that would generate fewer than 110 trips per day and may generally be assumed to cause less-than-significant transportation impacts. As indicated above, construction of the proposed project would generate up to approximately six one-way worker trips per day, and periodically up to ten additional one-way truck trips per day. Harvest would generate up to approximately 8 one-way worker trips, and two one-way truck trips per day (resulting in up to 10 round trips per day) for approximately three days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 4 one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day. Additionally, daily trips associated with the project would be temporary and seasonal in nature, further supporting conformance and observance of this screening criterion.

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

- c. The proposed project would utilize the existing site access off Monticello Road for project development (**Figures 1-3**). The proposed project does not include roadway improvements and/or modifications to Partrick 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 uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less than significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX, Hazards and Hazardous Materials**, for additional discussion related to emergency access.
- e. The proposed project would generate its largest demand for parking of up to approximately 20 vehicles during pruning and harvest periods, which last up to between 15 to 30 days each. 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
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XVIII. TRIBAL CULTURAL RESOURCES. Would the project:

Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | | |
|----|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| a) | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a-b. As discussed in **Section V (Cultural Resources)** the proposed project’s cultural resources study for the proposed project (Tom Origer & Associates, August 27, 2019) no cultural resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified or are anticipated in the project area. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

Notice of the proposed project was sent certified mail to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 28, 2020. The County received a response letter dated June 29, 2020 from the Yocha Dehe Wintun Nation on July 6, 2020 (Identification Number YD- 08212019-04) requesting that cultural monitors be present during development and ground disturbance, and that Yocha Dehe Wintun Nation’s Treatment Protocol be incorporated into the mitigation measures or conditions for the project, if approved.

On August 18, 2020, the County replied to the Yocha Dehe Wintun Nation indicating that the need for cultural monitors and the Tribe’s Treatment Protocol would be incorporated into either a project specific mitigation measure or conditions of approval, and closed consultation invitation because the Tribe did not request consultation.

The County sent consultation closure notices to the Middletown Rancheria and to the Mishewal Wappo Tribe of Alexander Valley on August 18, 2020, because no request for consultation was received and more than 30 days had elapsed since the County’s consultation invitation was provided

Based on communications with Yocha Dehe Wintun Nation and the expressed concern that the proposed project could impact unknown cultural resources, the Tribe recommended including cultural monitors during development and incorporation of the Tribe’s Treatment Protocol into the project. Because the site-specific cultural resources report did not identify a significant potential for resources to be found, and that the project would be subject to the cultural resource conditions of approval identified in **Section V (Cultural Resources)**, should the project be approved, the Tribe’s recommendations will be implemented through the condition of approval below. Implementation of the Cultural Resources and Tribal Cultural Resources conditions of approval would ensure that potential impacts on cultural resources would be less than significant. **Mitigation Measure TR-1** would be implemented to minimize the potential to impact tribal cultural resources to a less than significant level.

Tribal Cultural Resources – Conditions of Approval:

- a. The owner/Permittee and County shall, by reference, incorporate the Yocha Dehe Wintun Nation’s Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation into #P20-00139-ECPA.
- b. Prior to the commencement of vegetation removal and earth-moving activities pursuant to #P20-00139-ECPA, the owner/Permittee shall provide documentation to Napa County demonstrating that they have engaged with Yocha Dehe Wintun Nation to provide cultural monitors and that cultural sensitivity training has been provided to site workers.
- c. Should the owner/Permittee be unsuccessful in engaging with the Yocha Dehe Wintun Nation, the owner/Permittee shall provide, for review and approval by Napa County, a Cultural Monitoring Plan prepared by a professional archaeologist certified by the

Registry of Professional Archeologists (RPA). The Cultural Monitoring Plan shall outline monitoring requirements including but not limited to, sensitivity training for site workers, find procedures, and monitoring documentation and reporting procedures.

Therefore, with the implementation of this Tribal Cultural Resources conditions of approval, and the Cultural Resources conditions of approval discussed in **Section V (Cultural Resource)**, potential impacts on tribal cultural resources would be less than significant.

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

Discussion

a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate a measurable 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 groundwater management, wells conditions of approval in **Section X [Hydrology and Water Quality]**). Irrigation pipelines would be located within existing roads, vineyard and vineyard areas and/or within proposed clearing limits.

The proposed project also would include the installation of a limited number of onsite storm water drainage features such as waterbars, diversion ditches, drop inlets, subsurface drainlines, attenuation basin with associated outfalls and energy dissipators, and a permanent cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage features is described in **Sections IV (Biological Resources), VII (Geology and Soils), and X (Hydrology and Water Quality)**. As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in **Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources) and IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.

b. The proposed 20.23 gross acres of vineyard (approximately 15.75 net acres) would be irrigated using groundwater supplied by two proposed wells located on the project site (**Exhibit D**). The WAA conducted by Napa Valley Vineyard Engineering (**Exhibit G**) concluded the project would demand an estimated 7.8 AF/year. Based on site-specific recharge and analysis the project site is estimated to have an average annual groundwater recharge of 23.2 AF/year. The project's groundwater demand represents approximately 34% of the parcel's average annual groundwater recharge. Implementation of the proposed project would not generate wastewater and would not result in the construction or expansion of a water or wastewater treatment facility. Therefore, the proposed project with incorporation of the Groundwater Management condition of approval would have a less than significant impact on water supplies. Water availability and use are discussed in detail in **Section X (Hydrology and Water Quality)**.

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

d-e. Rock generated during vineyard preparation would be utilized onsite for erosion control measures or on existing roads as road base. Any leftover rocks would be stockpiled within the development areas temporarily, if needed. 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 that would generate waste material (cane). This material would be placed in designated collection areas or containers and would be cleared daily, or as necessary, and regular removal and proper disposal would be required. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

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

Discussion

The project site located in State Responsibility Areas (SRA) that is designated as a Moderate Fire Hazard Severity Zone (CalFire, 2007; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone).

- 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 affect an adopted emergency response plan or emergency evacuation plan. 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 due to the short duration of construction (one phase of approximately six month). Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. While the project site is within 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 downstream flooding or landslides, resulting in a less than significant impact. Additionally, as discussed in **Section IX (Hazards and Hazardous Materials)** the risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project area as compared with existing conditions. For these reasons, no structures or people are anticipated to be exposed to downslope or downstream flooding or landslides as a result of wildfire, and the impact would be less than significant.

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have 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)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

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

- a. As discussed in this Initial Study, implementation of #P20-00139-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment.

Implementation of **Mitigation Measures BR-1 through BR-5** would avoid potential direct and indirect impacts to oak woodland habitat and special-status species and protected bird species and their habitat. New/upgraded wildlife exclusion fencing would connect with existing fencing on the project site to enclose the proposed vineyard blocks. While the proposed project would result in portions of the site having reduced potential for on-site wildlife movement, the retention of blocks of vegetation with direct connectivity with similar habitats in the project site and on neighboring properties would allow for continued local wildlife movement. The proposed project has been designed to avoid the tributary to Browns Valley Creek and provide it with an approximate 400-foot setback buffer to maintain this wildlife movement corridor. Because new wildlife exclusion fencing would encompass each the seven (7) development areas around their peripheries, the open grassland habitats through the central of the project site would also be maintained to allow wildlife movement and use between woodlands to the east and west of the site. As such, the proposed wildlife exclusion fencing would not introduce any new significant movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant. Wetlands within the project site have been avoided and provided with a minimum 50-foot setback buffers. To reduce impacts on water quality, the proposed project has been designed to provide ephemeral streams with setbacks greater than the required minimum of 35-feet, typically a +50-foot setback buffer is provided, and the county definitional (Blue-line) stream has been provided with greater setbacks than the minimum required which range from 85 feet to 150 feet, pursuant to NCC Section 18.108.025(B) avoid the wetland with a minimum 50-foot buffer and the streams on the project site, which do not meet the Napa County definition of a stream, have been avoided with more than the minimum 35-foot setbacks in accordance with NCC 18.108.025. With incorporation of standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Therefore, the proposed project as designed with the incorporation **Mitigation Measures BR-1 through BR-5** and conditions of approval would have a less than significant potential to degrade the quality of the environment. Ephemeral streams have been provided with setbacks greater than the required minimum of 35-feet (typically a +50-foot buffer is provided), and the County Definitional (Blue-line) Stream has been provided with greater setbacks than the minimum required which range from 85 feet to 150 feet, pursuant to NCC Section 18.108.025(B), typically a +400-foot setback buffer is provided form Blue-line streams.

- b. The project site is located in the Browns Valley Creek Drainage and the southern tip of the project site and approximately 0.53 acres of the project area are located in the Napa River Lower Napa City Reach Drainage. The Browns Valley Creek Drainage contains approximately 1,381 acres. In 1993, vineyard acreage within this drainage was approximately 110-acres, or ±8.0% of the drainage. Since 1993 approximately 143-acres of additional vineyard (or 10.0% of the drainage) have been developed to vineyard, resulting in approximately 18% of the drainage (or approximately 253-acres) containing vineyard. The Napa River Lower Napa City Reach Drainage contains

approximately 7,321-acres. In 1993, vineyard acreage within this drainage was approximately 90-acres, or $\pm 1.0\%$ of the drainage. Since 1993 approximately 153-acres of additional vineyard (or $\pm 2.0\%$ of the drainage) have been developed to vineyard, resulting in approximately 3% of the drainage (or approximately 243-acres) containing vineyard.

It is estimated based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Browns Valley Creek Drainage that there are approximately 594 acres ($\pm 43\%$ of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 253-acres), results in a total potential build out of approximately 847-acres or approximately 61% of the drainage. Within the Napa River Lower Napa City Reach Drainage there is approximately 248-acres of Potentially Productive Soils ($\pm 3\%$ of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 243-acres), results in a total potential build out of approximately 491-acres or approximately 7% 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 watercourses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

While it is not possible to precisely quantify the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Browns Valley Creek Drainage and the Napa River Lower Napa City Reach Drainage) over the last 30 years (1993-2023) were used to project an estimation of vineyard development for the next three to five years. Over the past 30 years within the Browns Valley Creek Drainage and the Napa River Lower Napa City Reach Drainage, approximately 10-acres of agriculture were developed per year (296 divided by 30). 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 30 to 50-acres over the next three to five years within the Browns Valley Creek and Napa River Lower Napa City Reach Drainages are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses, avoiding and setting back from wetlands, and retention of 70% of the vegetation canopy cover, 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 ECPA 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 (#P20-00139-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 3** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 7 and 8**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval. Furthermore, implementation of **Mitigation Measure BR-5** would further offset potential emissions of the project.

Biological Resources - Section IV:

A project-specific Biological Resource Assessment with Botanical Surveys and Delineation of Waters of the U.S. (Northwest Biosurvey, August 2020 - **Exhibit B**) was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species because of the proposed project. The reconnaissance surveys included database records searches to identify the presence or potential presence of special-status species within the project area. The database records searches included the CNDDDB, CNPS, and Napa County databases. As discussed in **Section IV (Biological Resources)**, wetlands were identified in the project site but outside of the project area and have been provided minimum 50-foot setback buffer. No special-status plant species are present within the development area and six special-status animal species have the potential to occur within the development; however, with the

implementation of **Mitigation Measures BR-1 through BR-5**, impacts on these species would be less than significant. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Cultural Resources – Sections V and XVIII:

The cultural resource reconnaissance survey (Tom Origer & Associates, August 2019) identified no significant cultural resources in the development area. With the incorporation of 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 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 8.6 tons/year as compared to existing conditions (**Table 6**). The reason for this reduction is due to the increased vegetative cover conditions within the proposed project area and the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions and would implement erosion and runoff control conditions of approval, the proposed project is not anticipated to contribute cumulatively to sediment production within the Browns Valley Creek and Napa River Lower Napa City Reach Drainages. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

Because geologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA 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.

Hydrology and Water Quality - Section X:

Water use calculations provided in the Water Availability Analysis prepared by NVVE (November 2022 - **Exhibit G**) indicate that the proposed development consisting of approximately 15.75 net acres of planted vineyard would result in approximately 7.8 AF/year of water use. Based on site-specific recharge and analysis the project site is estimated to have a total average annual groundwater recharge of approximately 23.2 AF/year. The project's groundwater demand of (7.8 AF/year) represents approximately 34% of the average annual groundwater recharge. Further, with implementation of Groundwater Management conditions of approval potential impacts are anticipated to be less than significant.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis has been prepared by NVVE (January 2021 - **Exhibit E**). Because the proposed project does not materially alter site slopes, no net increase in runoff volumes or rates are expected as compared to pre-project conditions (**Table 10**). Therefore, no significant impacts due to changes in hydrology are expected.

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

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

Land Use and Planning - Section XI:

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

Proposed Project Impacts Found to be Less Than Significant

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, 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 site would increase agricultural land and would therefore not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project would not result in wasteful, inefficient, 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 or recreational uses. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

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

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

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LIST OF EXHIBITS:

- Exhibit A Agricultural Erosion Control Plan # P20-00193-ECPA
- Exhibit B Biological Resource Assessment
- Exhibit C Cultural Resource Study (Contents Confidential)
- Exhibit D Soil Loss Analysis
- Exhibit E Hydrology Analysis
- Exhibit F Engineering Geological Evaluation I
- Exhibit G Water Demand and Water Availability Analysis
- Exhibit H Project Revision Statement