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:** V. Sattui, Hibbard Ranch Vineyard Conversion, Agricultural Erosion Control Plan Application (ECPA) #P19-00069-ECPA

2. **Property Owner(s):** V Sattui Winery Inc.

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

4. **Project Location and APN:** Terminus of Henry Road, Napa, CA 94558, APN 050-380-014 (**Figures 1** and **2**)
   Portions of Sections 1 and 2 and Portions of Sections 11 and 12
   Township 05 North, Range 05 West, Mt. Diablo Base
   Longitude 38° 17' 55.20" N / Latitude 122° 22' 29.20" W

5. **Project Sponsor:** Brooks Painter
   V Sattui Winery Inc.
   1111 White Lane
   St. Helena CA 94574

   Agent: James Bushey (RPE No. 49931)
   PPI Engineering
   2800 Jefferson Street
   Napa CA 94558

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

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

8. **Description of Project:** The project includes the clearing of vegetation (California annual grassland, purple needle grass/grassland, and coast live oak woodland), earthmoving and grading that includes construction of approximately 600 feet of vineyard access roads (to provide access between Proposed Vineyard Blocks 7 and 8 and between Blocks 8 and 1), the stabilization of four landslides (encompassing approximately 1.5 acres) and setbacks of 25 to 50 feet from other unstable areas, repair of an erosional (gully) feature, and the installation and maintenance of erosion and runoff control measures and associated agricultural infrastructure, for the development and operation of approximately 33.5 net planted acres of vineyard within a 53.6-acre clearing limit, consisting of nine vineyard blocks (i.e. Project Area or Development Area), on an approximate 421-acre project parcel (or project area) located at the terminus of Henry Road (**Figures 1 – 3** and **Exhibit A**). Thirty-six (36) trees are proposed for removal as part of the project: one (1) California bay, eight (8) coast live oak, and twenty-seven (27) valley oak.

   Proposed landslide stabilization and gully repair would encompass approximately 1.5 acres of earthmoving located outside of the proposed vineyard clearing limits for a total project area of approximately 56-acres. Overall grading is anticipated to include approximately 10,000 cubic yards (cy) of cut and 10,000 cy of fill, balanced on-site. Access to the Development Areas would be provided by approximately 5.1 miles of existing ranch roads that would be maintained and repaired as necessary to provide adequate vineyard development and operational access, in addition to the 600 feet of new access road previously noted. Repairs include the installation of stich-pier wall or keyway in a road segment located east of Development Area 4. Approximately 1 mile of existing ranch roads would be decommissioned through incorporation into proposed Development Areas 7 and 8. Slopes within the project area generally range from 5% to 29%, with small pockets in excess of 30% slopes in several Development Areas (as further described) which total approximately 2.9 acres.

   Rock removed during the clearing of the land would be stockpiled inside the proposed clearing limits: there would be no transport of rock spoils off-site. Proposed wildlife exclusion fencing would fence proposed blocks individually and in clusters as shown in the ECPA plan's April 2020 'Deer Fence" Figure (PPI Engineering, April 2020: **Exhibit A, Appendix E, Figure 4**): the proposed 6-inch by 6-inch square wire mesh fencing would be at least 6 feet tall.

   Irrigation for the proposed vineyard conversion project would be provided by a combination of surface water (Water Rights Permit #20779, Application #30005 - **Exhibit I:** Structural Erosion Control Plan #95029) and groundwater via a drip system. Approximately 32.2-acres of the 33.5-acres of planted vineyard would be irrigated with surface water diverted and stored in the property's existing reservoir; the reaming ±1.3 planted acres would be irrigated by groundwater supplied by the property's two existing on-site wells. New main irrigation lines would be located with existing or proposed access roads.

   - **Development Area 1**: Proposed Vineyard Blocks 1A through 1D (10.1 gross acres, 6.8 net acres) are located within the southeastern portion of the parcel on a series of east/west trending hilltops. Slopes typically range from 15% to 21% with an average slope of 18.25% (approximately 0.15-acres occurring on over 30% slopes), at elevations that range from approximately 500 to 630 feet above mean seal level (msl). Soils predominately consist of Fagan Clay Loam (Soil Series #131 and #133), with

Felton Gravely Loam (Soil Series #136) occurring in Block 1C and in small portions (half-acre or less) of Block 1B and Block 1D. Six trees to be removed are located in Block 1C.

- **Development Area 2**: Proposed Vineyard Blocks 2A and 2B (0.7 gross acres, 0.2 net acres) are located within the central portion of the parcel on the eastern side of an existing vineyard block. Slopes typically range from 13% to 25% with an average slope of 19% (approximately 0.05-acres occurring on over 30% slopes), at elevations that range from approximately 470 to 510 feet above msl. Soils consist exclusively of Felton Gravely Loam (Soil Series #136). Five trees to be removed are located in Block 2A.
- **Development Area 3:** Proposed Vineyard Block 3 (1.3 gross acres, 0.7 net acres) is located within the central portion of the parcel on the eastern side of an existing vineyard block. The average slope of this area is approximately 26% (approximately 0.13-acres occurring on over 30% slopes), occurring at elevations that range from approximately 460 to 550 feet above msl. Soils consist of Fagan Clay Loam (Soil Series #132) and Felton Gravely Loam (Soil Series #136). No trees will be removed in Block 3.
- **Development Area 4:** Proposed Vineyard Blocks 4A through 4C (2.6 gross acres, 1.3 net acres) are located within the central/western portion of the parcel on eastern facing hillslopes. Slopes typically range from 16% to 29% with an average slope of 23% (approximately 0.5-acres occurring on over 30% slopes), at elevations that range from approximately 620 to 690 feet above msl. Soils predominately consist of Fagan Clay Loam (Soil Series #132), with Felton Gravely Loam (Soil Series #136) occurring in Block 4B. No trees will be removed in Blocks 4A through 4C.
- **Development Area 5:** Proposed Vineyard Block 5 (5.4 gross acres, 4 net acres) is located within the central/northern portion of the parcel on a southern facing hillslope. Slopes typically range from 18% to 24% with an average slope of 21% (approximately 0.13-acres occurring on over 30% slopes), at elevations that range from approximately 500 to 630 feet above msl. Soils predominately consist of Fagan Clay Loam (Soil Series #132), with Felton Gravely Loam (Soil Series #136) occurring in the southeast corner of the Block. A slide located in the northern end of the block would be repaired as part of the vineyard development project. No trees will be removed in Block 5.
- **Development Area 6:** Proposed Vineyard Blocks 6A through 6E (15.0 gross acres, 10 net acres) are located within the northern end of the parcel generally on south and southeast facing hillslopes, hilltops and saddle. Slopes typically range from 14% to 26% with an average slope of 20% (approximately 1.1-acres occurring on over 30% slopes), at elevations that range from approximately 660 to 860 feet above msl. Soils consist exclusively of Fagan Clay Loam (Soil Series #132 and #133). Two slide areas located within and adjacent to Block 6C would be repaired as part of the vineyard development project and a slide on the east side of Block 6C has been avoided and provided with a 25-foot buffer per the Geotechnical Investigation (**Appendix F**). One tree to be removed is located in Block 6E.
- **Development Area 7:** Proposed Vineyard Blocks 7A through 7D (11.4 gross acres, 7.1 net acres) are located within the central portion of the parcel on series of southwest to northeast trending hilltops and associated saddles and western facing hillslopes. Slopes typically range from 17% to 28% with an average slope of 21.8% (approximately 0.7-acres occurring on over 30% slopes), at elevations that range from approximately 430 to 730 feet msl. Soils predominately consist of Fagan Clay Loam (Soil Series #131 and #133), and Felton Gravely Loam (Soil Series #136) occurring in small areas (approximately half acre or less) along the western periphery of Blocks 7A and 7C. A slide north of Blocks 7B and 7D has been avoided and provided with a 50-foot buffer per the Geotechnical Investigation. Twenty-three (23) trees to be removed are located in Blocks 7A-2, 7B, and 7C. The project's proposed gully repair is located between Blocks 7A-1 and 7A-2.
- **Development Area 8:** Proposed Vineyard Blocks 8A through 8H (5.9 gross acres, 2.9 net acres) are located within the central/eastern portion of the parcel on two hilltops and intervening saddles series of an east/west trending hilltops. Slopes typically range from 5% to 25% with an average slope of 15.5% (approximately 0.04-acres occurring on over 30% slopes), at elevations that range from approximately 620 to 790 feet above msl. Soils consist exclusively of Fagan Clay Loam (Soil Series #131 and #133). Slides north of Blocks 8C, 8G and 8H have been avoided and provided with buffers ranging from 25 feet to 50 feet per the Geotechnical Investigation. No trees will be removed in Blocks 8A through 8H.
- **Development Area 9:** Proposed Vineyard Block 9 (1 gross acres, 0.5 net acres) is located within the central/western portion of the parcel on the eastern side of an existing vineyard block. The average slope of this area is approximately 24% (approximately 0.2-acres occurring on over 30% slopes), occurring at elevations that range from approximately 440 to 510 feet above msl. Soils consist of Fagan Clay Loam (Soil Series #132 and #133). A slide north of the Block has been avoided and provided with a 25-foot buffer per the Geotechnical Investigation. No trees will be removed in Block 9.

Erosion and Runoff Control Measures: Temporary erosion and runoff control measures include straw wattles, water bars, and the application of straw mulch at a rate of 3,000 pounds per acre. Permanent erosion and runoff control measures include slide and gully repairs[1], rolling dips, subsurface drainlines and rock aprons/outfalls, and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80% within both the vineyard and vineyard avenues. Details of the proposed erosion control measures are provided in the V Sattui Hibbard Ranch Vineyard #P19-00069-ECPA, dated April 2020, prepared by James R. Bushy (Registered Professional Engineer No. 49931) of PPI Engineering

[1] Gilpin Geosciences Inc., March 2019 and January 2020: **Exhibits D-1** and **D-2**.

Inc, Napa, California (**Exhibit A**). Also, see **Exhibit D-2** (Gilpin January 2020) and for additional details on the slide and gully repair components of the project, included as Appendix F in the **Exhibit A**.

Earthmoving: Earthmoving, vegetation and tree removal, and grading activities associated with the proposed agricultural conversion project and its operation include, but are not limited to: repair and stabilization of unstable/slide areas and erosional gully repair; and, land preparation activities to develop and maintain vineyard and associated erosion and runoff control measures including but not limited to, vegetation removal, soil ripping (24 to 48 inches), rock removal, disking, land contouring, and the maintenance of rock storage areas. Overall project grading is anticipated to include approximately 10,000 cubic yards (cy) of cut the 10,000 cy of fill balanced on-site.

Details of the proposed slide area repairs and erosional gully repair are provided in the V Sattui Hibbard Ranch Vineyard Landslide and Geotechnical Evaluation, dated January 24, 2020, prepared by Lou M. Gilpin (Certified Engineering Geologist No. 1518) of Gilpin Geosciences Inc., and Craig S. Shields (Certified Geotechnical Engineer No. GE2116) of Rockridge Geotechnical Inc. (**Exhibit D-2**).

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

a. Ephemeral and intermittent streams have been provided with 50-foot setback buffers that include a 26-foot-wide undisturbed filter strip and a 24-foot-wide vegetated turnaround avenue, and County Definitional Streams pursuant to NCC Section 18.108.030 have been provided stream setback buffers compliant with NCC Section 18.108.025(B), which range from 65 feet to 150 feet.
b. Wetlands have been provided with 50-foot setback buffers that includes a 26-foot undisturbed filter strip and a 24-foot-wide vegetated turnaround avenue.
c. Installation of vineyard trellis and drip irrigation systems, and planting rootstock on a 4 foot by 7.5-foot spacing pattern for a vine density of approximately 1,452 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. Pre-emergent herbicides would not be strip sprayed in the vine rows for weed management. Contact or systemic herbicides may be applied in the spring (no earlier than February 15) to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season. The width of the spray strips would be no wider than 12 inches to achieve 80% vegetative cover.
f. Storage of agricultural chemicals, and the storage and maintenance of agricultural equipment for the vineyard conversion project would occur at a ranch operations center located on the abutting parcel to the West (APN 050-380-017: Lands of V. Sattui Winery Inc.), which is currently used to support existing vineyards and operational activities occurring on the project parcel.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P19-00069-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P19-00069-ECPA.

Table 1 – Implementation Schedule

April 1	Commence vegetation clearing and earth-disturbing activities.
October 1	Complete all earth-disturbing and grading activities, and compete installation of erosion and runoff control measures.
October 15[1]	All winterization complete, including seeding, straw mulching, and straw wattle installation.

[1] During the winter months (October 15 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Section 18.108.070(L).

Table 2 – Annual Operations Schedule

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

Project construction activities are anticipated to require up to approximately 12 one-way worker trips per day for work crews of between 10 and 20 workers. Approximately six additional one-way trips are anticipated for project mobilization and demobilization for equipment and materials delivery and pick up. Anticipated construction equipment would include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles.

Vineyard operations, including pruning and harvest is anticipated to require up to approximately 12 one-way worker trips per day for work crews of between 10 and 20 workers. Approximately four to eight additional one-way trips are anticipated for grape haul trucks during harvest. Up to four vehicle/truck round trips per day would occur seasonally during operation. Anticipated equipment for vineyard operations would include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles, and ATVs.

Implementation of the proposed project would be in accordance with the V. Sattui Hibbard Ranch Vineyard ECPA prepared by PPI Engineering (April 2020 - **Exhibit A**) and V Sattui Hibbard Ranch Vineyard Landslide Investigation, (January 2020, Gilpin Geosciences Inc – **Exhibit D-2**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES) and at https://pbes.cloud/index.php/s/zGksXBXjQoxKx9r .

9. **Describe the environmental setting and surrounding land uses:** The proposed project would occur on an approximate 421-acre parcel located at the terminus of Henry Road, Napa CA, Assessor's Parcel Number 050-380-014 (**Figures 1 – 3** and **Exhibit A**). The project parcel is situated in the southern Mayacama Mountains approximately 6 miles south/southeast of Mount Veeder and approximately 0.5 miles west of the City of Napa, and within the Carneros Creek and Browns Valley Creek drainages (or sub-watersheds). Only approximately 1-acre of the northern end of proposed Development Area 6 occurs within the Browns Valley Creek drainage. One unnamed blue-line tributary to Carneros Creek bisects the project parcel generally in a northeast to southwest direction where it connects to Carneros Creek, which is generally located along the southern property line of the project parcel. There are several county definitional and ephemeral streams within the central portion of the project site that are tributary to this blue-line stream that generally run in an east/west direction (**Figure 1** and **Exhibit A**). Carneros Creek drains to the Napa River approximately 5.5 miles southeast of the project parcel.

   Land uses within the vicinity of the project parcel predominately consist of scattered agricultural uses (vineyards, livestock grazing, and wineries), rural residential and undeveloped woodlands and grasslands. There are three wineries located on the abutting parcels to the north (Fontanella, Mt. Veeder/Pulido-Walker, and Renteria). The nearest school (Browns Valley Elementary) is located approximately 1.5 miles to the east within the City of Napa. The nearest residences are located approximately 1,000 feet to the north and east of the project/development areas.

   General topography of the area consists of southern and western facing hillsides associated with the uplands of Redwood Canyon, Carneros Valley, and the foothills Mt. Veeder. Peaks, ridgelines, and valleys associated with the higher elevations of Mt. Veeder are located to the northwest of the project site. General topography of the project parcel consists of gentle to steeply sloped southern and western hillslopes (slopes ranging from 5% to 29%) at elevations between 430 feet and 860 feet above msl. The nearest mapped faults are the West Napa fault located approximately 2.6 miles to the east and the Rogers Creek Fault located over 10 miles to the northeast (Napa County GIS: Faults, West Napa Fault and Alquist-Priolo fault layers, and Gilpin Geosciences Inc. January 2020). Soils of the project area, as classified in the United States Department of Agriculture Soil Conservation Service's Napa County Soil Survey (USDA, Soil Survey of Napa County, 1978) consist of Fagan Clay Loam (Soil Series #131, #132 and #133), and Felton Gravely Loam (Soil Series #136).

   The vegetation types of the area generally consist of grasslands and oak woodlands interspersed with seasonal drainages and wetlands, and agricultural and residential development. The project parcel contains approximately 159.1-acres California Annual Grassland that includes approximately 0.62-acres of purple needle grass grassland, approximately 134.5-acres Coast Live Oak Woodland, approximately 0.11 acres of seasonal wetlands, and approximately 140.1-acres of developed land (WRA, December 2018: **Exhibit B-1**). Developed land includes approximately 120 gross acres of vineyard which includes associated vineyard avenues and access roads, other ranch roads, two groundwater wells, and a 49.8-acre foot off-stream reservoir within an approximate 3.8-acre footprint (Water Rights Permit #20779, Application #30005 - **Exhibit I:** Structural Erosion Control Plan #95029).

   In addition to vineyard, the project parcel has been used for rangeland and associated livestock grazing activities. There are approximately 5.1 miles of existing ranch roads with the project parcel. In addition, a majority of the project parcel was burned in the October 2017 wildfires.

   The project parcel is fenced along the entirety of the northern, eastern, and western property lines, and a portion of the southern property line, at which points fencing extends into the property to enclosed vineyards located in the northern and southern end of the property, as shown on the April 2020 'Deer Fence" Figure, PPI Engineering, April 2020 (**Exhibit A, Appendix E, Figure 4**), with six foot tall wire mesh wildlife exclusion fencing.

10. **Background:** The following erosion control plans have been issued to the project parcel: Structural Erosion Control Plan #95029 for the construction of a 49.8 acre-foot water storage reservoir including the re-contouring of approximately 10 acres of adjacent eroded hillside (August 19, 1995); Agricultural Erosion Control Plan (ECPA) #95150 for a 95-acre vineyard conversion (October 27, 1995); ECPA #99230 for a 12-acre vineyard conversion (September 19, 2001); Track II ECPA #P05-0368 to replant/redevelop approximately 14.1-acres of vineyard (October 11, 2005): Track II ECPA #P09-00425 to replant/redevelop approximately 77-acres of vineyard (November 4, 2009); and, ECPA #P11-00434 Track I replant plan to legalize and redevelop of approximately 5.7 acres of vineyard (April 20, 2012).

    This application was submitted on March 8, 2019, prior to the effective date of the Water Quality and Tree Protection Ordinance (WQTPO - Ordinance #1438, effective on May 9, 2019). Because the original submittal contained the requisite application materials required by the County ECPA Application Checklist at that time, the application was determined to be a '*substantially conforming'* and 'q*ualified permit application"* pursuant to the WQTPO. Therefore, continued processing and review of this application will be subject to the County Conservations Regulations (NCC Chapter 18.108) as they existed prior to amendment by the WQTPO.

The proposed project was originally designed to include 38.3 acres of planted vineyard within a 58.8 acre clearing limit. However, the applicant subsequently revised the proposed project during processing to 33.5 net planted acres of vineyard within a 53.6 acre clearing limit to avoid subsequently mapped wetlands affecting proposed Vineyard Development Area 6, and unstable areas affecting proposed Vineyard Development Area 9.

The original proposal also included the use of a pre-existing ranch road located within required stream setbacks[2] for project construction. It was determined that a Conservation Regulation Use Permit Exception pursuant to NCC section 18.108.040 would be necessary to use this road to develop this agricultural conversion project, in that the transport of construction equipment on the stretch of road within the setback would have constituted an increase in the intensity of use with larger construction vehicles placed on these roads as compared to historic use, that includes use by small tractors, pick-up trucks, or other small service vehicles to support ongoing vineyard operations[3]. Therefore, the applicant revised the proposed project to exclude the use of existing roads located within stream setbacks for the transport of construction equipment required as part of vineyard conversion: see PPI Engineering, October 2020 (**Exhibit J**) for project roads to be utilized during construction. The *Construction Equipment Access* roads identified in **Exhibit J** would also be utilized for the location and installation of any new main irrigation lines necessary to serve the proposed project, as further shown on Figure 6 of the ECPA (**Exhibit A**).

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

Responsible (R) and Trustee (T) Agencies	**Other Agencies Contacted**
California Department of Fish and Wildlife (CDFW) (T)	Middletown Rancheria
Regional Water Quality Control Board (Regional Water Board) (R)	Mishewal Wappo Tribe of Alexander Valley
State Water Resources Control Board Division of Water Rights (DWR) (R)	Yocha Dehe Wintun Nation

12. **Tribal Consultation:** Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resource, procedures regarding confidentiality, etc.?

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on March 20, 2019.

The County received a response letter from Middletown Rancheria on March 25, 2019, indicating that the Tribe had no comments at this time, but requested that work stop, and they be contacted if any cultural items are encountered during project construction. The County replied on May 13, 2019, closing the consultation invitation because consultation was not requested.

The County received a response letter from Yocha Dehe Wintun Nation on April 1, 2019, indicating that the project area is not within their aboriginal territories and had no comment. The County replied on May 13, 2019, closing the consultation invitation because consultation was not requested.

The Mishewal Wappo Tribe of Alexander Valley did not respond to the consultation invitation within the 30-day response period, and because no response to the consultation invitation was received, on May 13, 2019, the County sent a consultation closure notice to the Tribe.

Also, see **Section XVIII (Tribal Cultural Resources)** for additional disclosures and discussion.

[2] Pursuant to Napa County Code Section 18.108.026 (General provisions – Intermittent/perennial streams)

[3] NCC Section 18.108.025(E)(2) (*Uses Permitted Within Required Stream Setbacks*) - Except to the extent inconsistent with the provisions of Title 16 pertaining to floodway and floodplain regulations, only the following uses shall be permitted within the required stream setbacks, unless specifically authorized by the Planning Commission through the use permit process: Use and maintenance of existing tractor turnaround areas, agricultural roads, recreational roads, trails and crossings. And NCC Section 18.108.050(D) (*Exceptions*) - this chapter shall not apply to the following activities, whether or not permits are presently required therefor, which this board hereby finds have less potential to significantly alter the present environment; are preempted by state law; or are publicly-supervised projects necessary for the protection of the immediate health and safety of the residents of Napa County: Maintenance of private access roads, such as resurfacing (rock or asphalt), cleaning inside ditches and culvert inlets, removing or installing waterbars.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with #P19-00069-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559, or at https://pbes.cloud/index.php/s/zGksXBXjQoxKx9r

- PPI Engineering, April 2020, Erosion Control Plan, V. Sattui Vineyard Inc., Hibbard Ranch Vineyard Conversion (**Exhibit A**)
- WRA, Inc., December 2018, Biological Resources Reconnaissance Survey Report, Hibbard Ranch (APN: 050-380-014) (**Exhibit B-1**)
- WRA, Inc., September 2019, Response to Comments (Biology), V. Sattui Hibbard Ranch Vineyard Conversion (**Exhibit B-2**)
- Flaherty Cultural Resource Services, August 2018, Cultural Resource Reconnaissance Hibbard Ranch, and February 2019, Addendum Cultural Resource Reconnaissance Hibbard Ranch (**Exhibit C**) (Contents Confidential)
- Gilpin Geosciences, Inc., March 7, 2019, Engineering Geological Investigation, Hibbard Vineyard, Henry Road (**Exhibit D-1)**
- Gilpin Geosciences, Inc., January 24, 2020, Landslide Investigation (Response to Comments), V. Sattui Hibbard Ranch (**Exhibit D-2**)
- Gilpin Geosciences, Inc., July 30, 2020, Landslide Investigation Vineyard Blocks 5 & 6C (**Exhibit D-3**)
- PPI Engineering, October 2019, Soil Loss Analysis, Hibbard Ranch Track I ECPA (**Exhibit E)**
- PPI Engineering, October 2019, Hydrologic Analysis, Hibbard Ranch Tack I ECPA (**Exhibit F)**
- PPI Engineering, April 2020, Supplemental Soil Loss and Hydrologic Analyses, Hibbard Ranch Track I ECPA (**Exhibit G)**
- O'Connor Environmental, Inc., September 2019, Water Availability Analysis, Hibbard Ranch (**Exhibit H**)
- State Water Resources Control Board, Division of Water Rights, March 8, 1995, Water Rights Permit #20779 (**Exhibit I**)
- PPI Engineering, October 9, 2020, Construction Equipment Access, Hibbard Ranch Tack I ECPA (**Exhibit J)**
- PPI Engineering, October 19, 2019 and May 22, 2020, Responses to May 21, 2019 and December 4, 2019, County Completeness Determinations (**Exhibit K)**
- Site inspection conducted by Napa County Planning Division staff (D. Barrella, Planner III) and Engineering Division staff (P. Ryan, Engineering Manager) on April 11, 2019.
- Napa County Geographic Information System (GIS) sensitivity maps/layers

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

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

March 2, 2023
Date

Donald Barrella
Printed Name

Napa County Planning, Building and Environmental Services

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

Discussion

a-b. The project site is over 0.5 miles of Partrick Road, the closest County viewshed road and is not located within a scenic corridor (Napa County GIS, Scenic Corridors Layer). The site is not located on a prominent hillside or a major ridgeline (Napa County GIS, Ridgelines Layer) and is not visible from Partrick Road. There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Although trees would be removed (discussed in **Section IV [Biological Resources]**), they do not provide a significant visual resource outside of the project site. The closest State Highways are Hwy. 29 and Hwy. 12 (Caltrans 2015[4]) which are located over 2.5 miles to the east and south (respectively) of the project parcel. The project site is not visible from either of these state scenic highways. Therefore, the proposed project would have a less than significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops for the reasons described above.

c. The proposed project is consistent with the Napa County Agriculture, Watershed and Open Space (AWOS) land use designation and with adjacent land uses, which include other vineyards and agriculture, and rural residential uses. Given these factors, the proposed 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 on the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest activities, and other vineyard operational activities such as but not limited to sulfur applications and pest control, occurring approximately 30-60 times per year/season. These activities could happen from 9 p.m. to 6 a.m. Although some nighttime activity would occur for limited periods, they would be consistent with the operational activities occurring currently occurring on the project parcel and surrounding parcels and would not introduce a new source of substantial light or glare. Therefore, the proposed project would result in no impact.

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the	☐	☐	☐	☒

[4] https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf

	Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a. The Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the existing vineyards within the project parcel as either Farmland of Statewide importance or Unique Farmland. The remainder of the parcel is mapped as either Farmland of Local Importance[5] or Grazing Land. Because the project would maintain existing Farmland of Statewide importance and Unique Farmland, and would develop vineyard on portions of the parcel mapped as locally important, which is consistent with that mapping unit definition, there would be no impact.

b. The project site has an AWOS General Plan designation and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 53.6 gross acres (33.5 net acres) is consistent with project site's land use and zoning designations. The project parcel is under Williamson Act Agricultural Contract #358-82, recorded February 24, 1982, Volume 1231 Pages 42 through 53, of the Official Records of the Napa County Recorder. The proposed project includes agricultural development (the growing and raising of vines is defined as 'Agriculture' by the contract and is as 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

   The abutting parcel to the west (APN 050-380-17, Lands of V Sattui Winery Inc.) is also under Agricultural Contract #358-82. The County's current Williamson Act rules specify that not more than one legal parcel may be included in a single preserve contract. Therefore, the project if approved will be subject to a condition of approval requiring the owner submit an agricultural contract application to rescind the current and replace it with two new contracts covering the individual parcels.

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." The project site does not contain forest land or coniferous forest (**Exhibit B-1**, and Napa County GIS). 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?	☐	☐	☒	☐

[5] These farmlands include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance with the exception of irrigation. These farmlands include dryland grains, haylands, and dryland pasture.

b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

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)[6]. The thresholds are advisory and may be followed by local agencies at their own discretion.

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

In view of the Supreme Court's opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA, or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or BAAQMD to any specific course of regulatory action.

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

a-b. The project site is generally situated on the western mountains, 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 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 established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O_3), ozone precursors oxides of nitrogen and reactive organic gases (NO_x and ROG), carbon monoxide (CO), nitrogen dioxide (NO_2), and suspended PM of ten micrometers or less and two and a half micrometers or less (PM_{10} and $PM_{2.5}$). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO_2), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

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

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

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

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

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

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

Table 3 – Emissions from Vineyard Development and Operation

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

[1] As identified in Circle-S EIR; [2] As identified in Suscol Mountain EIR; [3] As identified in Walt Ranch EIR; [4] Includes dust and exhaust emissions; [5] Calculation based on 365 days of operation. Project emissions are anticipated to be less than identified as vineyard operations are seasonal in nature.
Sources: Circle-S Ranch Vineyard EIR 2011; Suscol Mountain Vineyard EIR 2013; Walt Ranch Vineyard EIR 2016; BAAQMD CEQA Guidelines May 2017.

Because the proposed project's 53.6 gross acre vineyard (approximately 33.5 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 condition 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

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

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

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

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

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:

i. 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.
ii. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
iii. Cover all haul trucks transporting soil, sand, or other loose material offsite.
iv. 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.
v. All vehicle speeds on unpaved roads shall be limited to 15 mph.
vi. 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.
vii. 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.
viii. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[11] or the PERP website[12].

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.

Land uses adjacent to the project site and in the immediate vicinity include vineyards, grazing land, undeveloped land, and rural residential. The nearest school (Browns Valley Elementary) is located approximately 1.5 miles to the east within the City of Napa. The nearest residences are located approximately 1,000 feet to the north and east of the project site.

During installation of the ECPA, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur approximately 1.5 miles from the closest school and residential neighborhood, providing opportunity for dilution of pollutants and odors. For the reasons identified above, and that the project parcel and parcels in the vicinity contain active longstanding vineyard operations the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, resulting in a less than significant impact.

	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?	☐	☒	☐	☐

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

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

b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

The December 2018 Biological Resources Reconnaissance Survey Report and September 2019 Biological Response to Comments prepared by WRA, Inc. (**Exhibit B-1** and **Exhibit B-2)** were utilized in this analysis and is incorporated herein by reference and available in the project file for review. Additionally, the following Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos.

WRA assessed biological resources on the project site on April 25 and June 8, 2018. 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. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys were performed in accordance with those outlined by Napa County (2016b), which follow those described by other resource agencies and experts including the California Native Plant Society (CNPS, 2001), the California Department of Fish and Wildlife (CDFW, 2018c), and the US Fish and Wildlife Service (USFWS, 1996). Plants were identified using Baldwin et al. (2012) and Jepson Flora Project (Jepson eFlora, 2018) to the taxonomic level necessary to determine species sensitivity.

The project site contains the following biological communities (or habitat types): Coast live oak woodland, Purple needle-grass grassland, Seasonal Wetland, Non-native annual grassland, and developed land (consisting predominately of vineyard and associated infrastructure such as vineyard avenues and turnaround areas, access roads, and reservoir) (**Table 4**). **Table 4** also includes the acreages of the biological communities that would be removed because of the proposed project.

Table 4 – Biological Communities and Habitat Types in Acres[13]

Biological Community	Pre-Project	Total Removed	Post-Project	Percent Retained
Coast live oak woodland	134.47	2.34	132.13	98.3%
Purple needle-grass grassland	0.62	0.2	0.42	67.7%
Seasonal Wetland	0.44	0	0.44	100%
Non-native annual grassland	167.22	51.06	116.16	69.5%
Developed (gross acreage)	131.6	0	185.2	100%
Total	434.35	53.6	434.35	--

Sources: WRA, December 2018 (**Exhibit B-1**) and September 2019 (**Exhibit B-2**)

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 following: The California Natural Diversity Database (CDFW, 2018), CNPS Inventory of Rare and Endangered Plants (CNPS, 2018), and the USFWS List of Federal Endangered and Threatened Species (USFWS, 2018). For special-status plants, the Kenwood, Rutherford, Yountville,

[13] The project site acreage total identified in **Table 4** differ slightly from the total identified on County Assessor's Parcel Maps (±421 acres) due to differing mapping platforms, spatial characters, rounding, biological community confirmation and adjustment (wetland, non-native grassland and developed land), and project revisions. Because approximate biological communities identified herein are based on a project site-specific biological resources report, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

Napa, Sonoma, Glen Ellen, Petaluma River, Sears Point, and Cuttings Wharf USGS 7.5-minute quadrangles were utilized, and for special-status wildlife, the evaluation was based on database searches for the entirety of Napa County.

a. Special-Status Plants: Based upon a review of the resources databases listed in **Exhibit B-1**, 84 special-status plant species have been documented in the vicinity of the project site. Of these special-status plant species, three have been identified to have a moderate potential to occur in the project site: bent-flowered fiddleneck (*Amsinckia lunaris),* white hayfield tarplant (*Hemizonia congesta)* and dark-mouthed Triteleia (*Triteleia lugens*). However, these species are more commonly associated with costal bluff/scrub habitats and given the site's grasslands are dominated by non-native grasses, that exhibit a high thatch accumulation, any potential habitat for these plant species is considered poor quality and the species unlikely. Because no special-status plant species were observed within the project site during the surveys conducted by WRA, and that any potential special-status plant species habitat is poor quality, no impacts to special-status plant species are expected (**Exhibit B-1**).

Other natural communities in the County can be considered sensitive due to their limited local distribution. Purple Needlegrass Grassland (*Nassella pulchra* Herbaceous Alliance) (PNG Grassland) is identified as a Sensitive Biotic Community. The CDFW also considers PNG Grassland as sensitive. Additionally, Biotic Communities of Limited Distribution, which encompass less than 500 acres of cover within the County, are considered worthy of conservation (Napa County, 2008): native grassland is identified as a Biotic Community of Limited Distribution. Therefore, PNG Grassland is considered both a Sensitive Biotic Community and Biotic Community of Limited Distribution in the County. Five small populations of PNG Grassland are located within parcel, one located at the eastern extent of Vineyard Block 6A, one located in Vineyard Blocks 5, and the other three populations are located outside of the project area between ±300 and ±600 feet to the west of Vineyard Blocks 5.

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

a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.
b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.
e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

With respect to Policy **CON-17e,** County practice has been to require avoidance to the extent feasible with restoration and replacement as a secondary approach to achieve the no net loss standard. Furthermore General Plan Conservation **Goal CON-2** encourage that the existing level of biodiversity be maintained and enhanced, and Conservation Regulations (NCC Chapter 18.108), in part, encourages the preservation of the natural resources of the county including other natural habitats.

The project as proposed would remove 0.2 acres or approximately 32.3% of the PNG Grassland identified in the parcel, avoiding/preserving ±67.7percentage (**Table 4**). Removal of a Sensitive Biotic Community and a Biotic Community of Limited Distribution (i.e. PNG Grassland) is considered a potentially significant impact. To reduce potential impacts to this Sensitive Biotic Community and Biotic Community of Limited Distribution to a less-than-significant level, **Mitigation Measure BR-1** would be implemented. **Mitigation Measure BR-1** would require: the eastern limits of Vineyard Block 6A be revised to fully avoid the PNG population and provide it with a minimum 25 foot buffer; the re-planting and establishment of 0.4 acres of PNG Grassland, and the permanent preservation of avoided and re-established PNG Grasslands and populations in an area encompassing no less than one acre (pre-project acreage 0.62 plus the 0.4 PNG establishment acres). The PNG Grassland established pursuant to this measure shall be located in close proximity of the avoided PNG Grassland and populations located west of Vineyard Block 5 and the eastern extent of Vineyard Block 6A, or as determined by a qualified botanist or restoration ecologist. Implementation of this measure would also result in consistency with Conservation Policy CON-17(e), in that it would result in no net loss of a Sensitive Biotic Community and a Biotic Community of Limited Distribution.

Further, there is the potential that additional PNG or other special-status plants or populations may have appeared and proliferated since the date of the surveys, resulting in potential impacts to special-status plants and populations that have may have appeared since the original surveys. **Mitigation Measure BR-1** would also require that 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 measures into #P19-00069-ECPA prior to approval to minimize potential impacts to Purple Needlegrass Grassland, a Sensitive Biotic Communities and Biotic Community of Limited Distribution:

a. Revise the eastern boundary of Vineyard Block 6A of Erosion Control Plan #P19-00080-ECPA prior to approval to avoid the Purple Needlegrass (PNG) population and provide it with a minimum 25-foot buffer. Wildlife exclusion fencing shall also be modified in this area to conform to modified boundaries as a result of this measure and be shown in the Vineyard Fencing Plan pursuant to **Mitigation Measure BR-4**.

b. Revise Erosion Control Plan #P19-00069-ECPA prior to approval to include a cover crop blend utilizing primarily native species, such as the "Native, No-Till Blend" listed in the Napa Resource Conservation District Best Management Practices report, in Vineyard Blocks 4, 5 and 6A, that are in proximity of avoided and established Purple Needlegrass Grasslands.

c. Prior to commencement of vegetation or earthmoving activities associated with installation of #P19-00069-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 review and approval by the Director prior to vineyard planting. 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 weeks 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.

d. Prior to the commencement of vegetation removal or earth-disturbing activities associated with #P19-00069-ECPA, the owner/permittee shall submit to the County for review and approval a Purple Needlegrass Grassland Revegetation and Replacement Plan to replace the 0.2 acres of Purple Needlegrass Grassland removed because of the project. The Revegetation and Replacement Plan area, encompassing no less than 0.4 acres, shall occur in close proximity to the avoided Purple needlegrass populations located west of Vineyard Block 5 or eastern extent of Vineyard Block 6A, or in areas suitable for Purple Needlegrass establishment as determined by a qualified biologist or restoration ecologist. The Plan shall be prepared by a qualified biologist or restoration ecologist and include the following: i) a site plan showing the revegetation/replacement area of at least 0.4 acres, ii) a plant pallet composed primarily of Purple Needle Grassland (*Nassella pulchra)* that can include other compatible native plant species common to the area, and includes planting densities and plant sizes and/or application rates, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management recommendations, specifications and goals, v) an implementation and monitoring schedule with a minimum of three years of monitoring and that continues annually until success criteria is met, and vi) performance standards with a minimum success rate of 80% to ensure the success of Purple Needlegrass Grassland re-vegetation and replacement efforts.

e. The Purple Needlegrass Grassland Revegetation and Replacement Plan shall be implemented upon initiation of vegetation removal or earth-disturbing activities associated with #P19-00069-ECPA.

f. Prior to the commencement of vegetation removal or earth-disturbing activities associated with Vineyard Block 6A of #P19-00069-ECPA, the PNG population to be retained and minimum 25-foot buffer flagged in the field by a qualified biologist and protective construction fencing shall be installed along the boundary. Construction fencing shall be inspected and approved by the County prior to the commencement of vegetation removal and earth-disturbing activities. The protective construction fencing shall be maintained and remain in place until Vineyard Block 6A installation is complete, and shall be replaced with a permanent means of demarcation and protection (such as permanent fence or rock barrier) so that the avoided PNG population and buffer is not encroached upon or disturbed as part of ongoing vineyard operations.

Special-Status Animals: A total of 58 special-status wildlife species have been documented within the greater vicinity of the project site. Six of these species are considered to have at least a moderate potential to occur within the project site: American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), fringed myotis bat (*Myotis thysanodes*), grasshopper sparrow (*Ammodramus savannarum*) white-tailed kite (*Elanus leucurus*), and Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*). However, no special-status animal species were observed during site visits (WRA, December 2018 - **Exhibit B-1**).

The American badger is found uncommonly within the region in drier open stages of most scrub, forest, and herbaceous habitats where friable soils and prey populations are present. Badgers are typically solitary and nocturnal; digging burrows to provide refuge during daylight hours. Burrow entrances are usually elliptical (rather than round), and each burrow generally has only one entrance. Young are born in the spring and independent by the end of summer. The parcel provides areas of open grassland that may be potentially suitable for badgers; however, there were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

Because the proposed project would retain approximately 69% of the parcel's grassland habitat (±116 acres), and that surrounding properties include substantial amounts of grassland and woodland that will continue to provide potential habitat, the loss of habitat for the American badger because of the project is anticipated to be less than significant impact. However, vineyard ground preparation activities

that includes ripping and disking of project site soils has the potential to destroy badger burrows or disrupt breeding or result in the mortality of dependent young if present (WRA, December 2018 - **Exhibit B-1**). To reduce the potential for direct impacts to American badger individuals to a less than significant level, **Mitigation Measure BR-2**, consisting of preconstruction surveys and avoidance measures if present, will be implemented.

Mitigation Measure BR-2: The owner/permittee shall implement the following measures to minimize potential impacts to the American badger:

a. Prior to the commencement of any vegetation removal or earth-disturbing activities associated with the project, a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local mammal species and habitat) shall conduct a preconstruction survey for the American badger and their burrows within all suitable habitat within the project area and surrounding areas within 50 feet. The preconstruction survey shall be conducted no earlier than 14 days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence more than 14 days from the survey date, surveys shall be repeated.

b. If badgers or their burrows are identified as a result of preconstructions surveys they shall be avoided, and burrows shall be provided with sufficient buffers as recommended by CDFW. An avoidance and relocation plan shall also be prepared for review and approval by CDFW and implemented prior to the commencement of any vegetation removal or earth-disturbing activities.

Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of manmade structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. The trees within the Study Area may contain cavities or snags suitable for roosting by this species and have the potential to occur given documented occurrences in the vicinity (CDFW 2018a). There were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

The fringed myotis ranges throughout much of western North America from southern British Columbia south to southern Mexico. This species is most common in drier woodlands (e.g. oaks, pinyons-junipers) including desert scrubland, grassland, and coniferous and mixed forests. Maternity roosting occurs in colonies of 10 to 2,000 individuals, although large colonies are rare (WBWG 2018). Caves, buildings, mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts; tree cavities/hollows are also commonly used (WBWG 2018). The trees within the parcel may contain cavities or snags suitable for roosting by this species, and it has a potential to occur given documented occurrences in the vicinity (CDFW 2018a). There were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

To assess the potential for bat habitat trees a daytime roost survey was performed on August 8, 2019. The survey assessed all trees and substrates within the project area to determine if bat roosting habitat was present. This survey was completed by walking the entire Project Area, and surveying each tree scheduled for removal. During the survey, the biologist noted conditions that may be favorable or unfavorable for bat use such as thermal conditions, frequency of disturbance, and evidence of potential predators. All trees were also investigated for fissures, cracks, or hollows that could provide roosting substrate for bats.

Most of the trees proposed for removal have no potential to support bats. Most of trees are healthy valley oak and coast live oak, with solid limbs, no or few holes, and intact bark that are small diameter, which do not provide suitable mass to maintain stable thermal conditions required by roosting bats. However, two large valley oak trees located in the project area have the potential to support roosting bats. These trees have large cavities that were investigated to the extent practical; however, there was no way to fully investigate the upper sections these trees that contained fissures and basal cavities that appear to be suitable for bat roosting. The trees are located in proposed Vineyard Blocks 1C and 7A-2 identified as tree #18 and #30 (WRA September 2019): see Figure A-1 of **Exhibit B-1**.

While removal of these two Valley oak trees would potentially have a direct impact on special-status bat species, the implementation of **Mitigation Measure BR-6** (further described in *subsection e* below) would retain these trees would reduce this impact to a less than significant level.

The grasshopper sparrow is a summer resident in California, wintering in Mexico and Central America. This species occurs in open grassland and prairie-like habitats with short- to moderate-height vegetation, and often scattered shrubs (Shuford and Gardali 2008). Both perennial and annual (non-native) grasslands are used. Nests are placed on the ground and well concealed, often adjacent to grass clumps (Shuford and Gardali 2008). Grasshopper sparrows are secretive and generally detected by voice. The Study Area provides open grassland areas that are suitable for nesting, and this species has been recently observed in the vicinity (eBird 2018). There were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat

elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. This species has a potential to occur within the project area due to the presence of trees suitable for nesting, as well as the open grassland habitat to support foraging. There were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

The Bryant's savannah sparrow, a subspecies of the common and widespread savannah sparrow, is a year-round resident of the coastal California fog belt. It typically occupies upper tidally influenced habitats (often where wetland communities merge into grassland), coastal grasslands, and some drier grasslands. Nesting occurs in vegetation on or very near the ground, including along roads, levees, and canals (Shuford and Gardali 2008). The project area provides grassland habitat that is suitable for Bryant's savannah sparrow, including for nesting. Savannah sparrows (presumed to be of this subspecies) have been recently observed in the vicinity during the breeding season (eBird 2018). There were no observations of this species during the site visits (WRA, December 2018 - **Exhibit B-1**).

While these species were not observed, migratory birds and raptors have the potential to nest within the trees throughout and adjacent to the development areas. 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. These are considered potentially significant impacts. **Mitigation Measure BR-3** will be implemented to minimize potentially significant impacts on migratory birds and raptors to a less that significant level.

Mitigation Measure BR-3: The owner/permittee shall revise Erosion Control Plan #P19-00069-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 U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division, or the USFWS 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.

The project as proposed with implementation of **Mitigation Measures BR-1** through **BR-3** would be consistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-2[14] because it would assist in maintaining the existing level of biodiversity in the County, as well as contribute to minimization of potential cumulative impacts associated with the loss of special-status plant species and associated habitat due to agricultural conversion projects; Goal CON-3[15] as it protects the continued presence of special-status plant species or its habitat; Policy CON-13[16] in that impacts to special-status habitat can be avoided; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affects sensitive, rare, threatened or endangered plants.

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

[15] 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.

[16] 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.

b-c. Aquatic resources in the project site include six (6) wetlands, an unnamed blue-line tributary to Carneros Creek that bisects the project parcel in a northeast to southwest direction where it connects to Carneros Creek, which is generally located along the southern property line of the project parcel. Several county definitional and ephemeral streams within the project site are tributary to the blue-line stream, which generally run in an east/west direction (see **Figure 1**, **Exhibits A, B-1** and **B-2**). There are several county definitional and ephemeral streams within the central portion of the project site that are also tributary to this stream. No riparian habitat was identified within the project site (WRA, Inc., December 2018).

Four (4) of the identified wetlands are directly connected to either definitional or ephemeral streams, of these three (3) are located immediately adjacent to Development Areas 5 through 7 (see **Exhibit A**). The other two wetland areas are isolated features located beyond the northern extent of Development Areas 1 and 4. The project as designed provides minimum 26-foot setback buffers from identified wetland areas. However, there is a small portion of existing road (approximately 75 feet in length) located north of Development Area 4 being utilized for the project, that is within the 26-foot buffer of the isolated this wetland area: this wetland area is located above the existing road.

The project has been designed to provide the blue-line stream and county definitional streams located in the project site with setbacks consistent with NCC Section 18.108.025 (General provisions – intermittent/perennial streams), which range from a minimum of 65 feet to 150 feet depending on slope as measured from top of bank.

The project has been designed to avoid ephemeral streams and wetlands, and provide them with a 50-foot setback buffer that includes a minimum 26-foot-wide undisturbed filter strip from top of bank or limits of wetland, and a 24-foot-wide vegetated avenue. The vegetated avenues would be used seasonally on an intermittent basis by farm equipment for ongoing vineyard operations.

As discussed in **Section IX**, the 50 foot setback buffers from wetlands and ephemeral drainages, that are comprised of a 26-foot-wide undisturbed filter strip and a 24-foot-wide vegetated turnaround avenue, are considered adequate because under most conditions a minimum 50-foot wide vegetated buffer from aquatic resources (drainages and wetlands) 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).

Therefore, the project as designed is expected to have a less than significant direct impacts on aquatic resources (ephemeral drainages and wetlands) and associated water quality.

While significant direct impacts to aquatic resources are anticipated, there is the potential for indirect impacts as a result of inadvertent encroachment into required setbacks and project designed setback buffers as a result of project construction and subsequent vineyard operations. This indirect impact is considered a potentially significant impact. To reduce this potentially significant indirect impact to aquatic resources to a less than significant level **Mitigation Measure BR-4** will be implemented. This measure will require demarcation these setbacks and buffers in the field prior to project initiation and installation of protective construction fencing (or similar), in addition to replacement of the protective construction fencing with a permanent means of demarcation and protection (such as a permanent fence, rock barrier, or similar) so that the avoided aquatic resources are not encroached upon or disturbed as part of ongoing vineyard operations.

Mitigation Measure BR-4: The owner/Permittee shall implement the following measures to minimize potential indirect impacts to aquatic resource (steams, drainages, and wetlands) to prevent the inadvertent encroachment into specified setbacks and buffers during construction and subsequent vineyard operations:

a. The owner/permittee shall, prior to approval, revise #P19-00069-ECPA to identify a permanent means of demarcation and protection (such as permanent fence or rock barrier) so that aquatic resource setbacks and buffers are not encroached upon or disturbed as part of ongoing vineyard operations. These features shall be installed prior to finalization of the ECPA.
b. Prior to the commencement of any earthmoving activities or vegetation removal the location of aquatic resource setbacks and buffers adjacent to vineyard development areas shall be clearly demarcated in the field with temporary construction fencing (or similar), which shall be placed at the outermost edge of required setbacks shown on the project plans. The precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation and shall be replaced with a permanent means of demarcation and protection pursuant to **Mitigation measure BR-4(a)**.
c. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees and vegetation that is inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P19-00069-ECPA shall be replaced on-site 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 vegetation will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. Any replaced vegetation shall be monitored for at least five years to ensure an 80% survival rate. Replacement vegetation shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

d. The project site is generally fenced around the periphery (or footprint) of existing vineyard areas with wildlife exclusion fencing (i.e. deer fencing) installed as part of the project site's previous vineyard developments under the following ECPA's: #95150 for a ±95-acre vineyard conversion (October 27, 1995); #99230 for a ±12-acre vineyard conversion (September 19, 2001); and, #P11-00434 to legalize and redevelop ±5.7 acres of vineyard (April 20, 2012). See Figure 4, in Appendix E of **Exhibit A,** for the locations and extent of existing fencing and locations of proposed wildlife exclusion fencing.

Proposed wildlife exclusion fencing would enclose proposed Development Areas individually with fencing located generally around the periphery (or footprint) of each Development Area. Proposed wildlife exclusion fencing would consist of 6-foot tall wire mesh.

The subject property and surrounding area have historically accommodated agricultural uses including cattle grazing and vineyard; therefore, there is a mix of existing cattle fencing and wildlife exclusion fencing within the surrounding area, with wildlife exclusion fencing typically occurring around vineyard development areas. The Project Site's Study Area's streams and a majority of the terrestrial biological communities will remain intact, including areas interstitial to the proposed vineyard blocks (and fencing units), which will allow for continued wildlife movement. The Study Area is not within a designated wildlife corridor (CalTrans 2010, Napa County 2005). The site is located within a much larger tract of land along the eastern and western boundaries of Sonoma and Napa Counties respectively, featuring a patchwork of agricultural/viticulture properties and minimally to undeveloped land (WRA December 2018 – **Exhibit B-1**).

While the proposed project is not anticipated to result in significant direct impacts to wildlife movement, the existing fencing of the subject property has essentially cutoff and eliminated wildlife movement and use areas (i.e. foraging habitat) in an east-west direction, in that the entirety of the eastern periphery of the parcel is fenced with wildlife exclusion fending in a north-west direction, in particular the existing fencing located between Vineyard Development Areas 4 and 6 and north of Vineyard Development Area 6. Therefore, maintaining the existing wildlife fencing of the parcel as part of the project is considered a potentially significant indirect and cumulative impact to wildlife movement, in that, maintaining this fencing will continue to fragment and negatively affect wildlife movement and use of the area.

Therefore, consistent with Conservation Policies CON-18d and CON-18e[17], **Mitigation Measure BR-5** will be implemented to reduce potentially significant indirect and cumulative impacts to wildlife movement and use areas to a less than significant level. **Mitigation Measure BR-5** will require the require modifications to the existing perimeter wildlife exclusion fencing located between Vineyard Development Areas 4 and 6 and north of Vineyard Development Area 6 to allow wildlife passage and movement. Implementation of this measure will also result in consistency with General Plan Conservation Policy CON-18 in addition to General Plan Conservation Goal CON-5[18]. Because wildlife nursery sites were not identified in the project site, there would be no impacts to wildlife nursery sites

Mitigation Measure BR-5: The owner/applicant shall revise Erosion Control Plan #P19-00069-ECPA prior to approval to include a property Perimeter and Vineyard Fencing Plan to reduce potential indirect and cumulative impacts to wildlife movement and access to wildlife habitat and foraging areas because of the project. The property Perimeter and Vineyard Fencing Plan shall be reviewed and approved by the County prior to its incorporation into #P19-00069-ECPA.

a. Revise the ECPA to include a property Perimeter and Vineyard Fencing Plan that shows the location and type(s) of existing perimeter fencing to be retained and to be replaced as part of the project, and includes the following:
    i. The removal of existing wildlife exclusion fencing located between Vineyard Development Areas 4 and 6 and north of Vineyard Development Area 6 in a manner to re-establish and maintain movement corridors in these areas. Any replacement fencing along the property lines in this area shall be of a design that does not present an impediment to wildlife movement (such as 4 foot tall 3-strand wire fencing).
    ii. Any replacement or new wildlife exclusion fencing shall consist of fencing types such as wire strand fencing or mesh fencing with minimum 6 inch by 6-inch openings. The Perimeter and Vineyard Fencing Plan shall identify the use of this fencing (or similar that is acceptable to the County) and include details of fencing types utilized.
    iii. 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.
    iv. The location of any new wildlife exclusion fencing as part of the project shall generally be limited to the perimeter of vineyard development areas as approved by the County.
b. Installation of wildlife exclusion fencing shall be limited to that specified in approved Erosion Control Plan #P19-00069-ECPA, and as identified in the Perimeter and Vineyard Fencing Plan for this project to ensure adequate wildlife movement and use through the remainder of the property and to adjacent properties is maintained. Any modifications to the location of wildlife exclusion fencing as specified in the ECPA or Fencing Plan shall be prohibited and shall

[17] General Plan Conservation Policy 18 - To reduce impacts on habitat conservation and connectivity: d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing to offset the impact caused by the new vineyard development.

[18] General Plan Conservation Goal CON-5:- Protect connectivity and continuous habitat areas for wildlife movement.

require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.

e. Based on the Biological Resources Reconnaissance Survey, project site contains a total of 134.47 acres of coast live oak woodland with approximately 2.34 acres occurring within the project area. Thirty-five (35) trees are proposed for removal as part of the project: one (1) California bay, eight (8) coast live oak, and twenty-seven (27) valley oaks. The trees proposed for removal are located in Vineyard Blocks 1C, 2A, 5, 6E, 7A-2, 7B, and 7C: see **Exhibit B-1** for the location and species of these trees.

Oak woodland is the most common land cover in the county occurring on approximately 167,000 acres (33% of the County's area). Approximately 733 acres of oak woodland or 0.5% of the total area of oak woodland in the County has been cleared for residential and agricultural purposes between 1993 and 2002 (Napa County Baseline Date Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 2005). While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level for projects that remove oak woodland[19].

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

The project as proposed would retain ±132.13 acres, or approximately 98.3% of the site's oak woodlands. Therefore, the proposed project would be in compliance with Policy CON-24, and that the project would avoid and retain 98.3% of the site's oak woodlands, in conjunction with the limited tree removal (36 trees) within the ±2.34 acres of oak woodland being removed , potential project specific impacts to oak woodlands is considered to be less than significant. .

Specific to individual tree removal, in particular valley oak trees, there was only 2,903 acres of valley oak woodland remaining in the County in 2002 (encompassing only 0.57% of the County), of that only 205 acres of valley oak woodland occur in the Western Mountains evaluation area, which the project site lies[20]. Given the limited distribution of the valley oak woodland alliance and of individual valley oak trees within the county, both valley oak woodlands and valley oak trees/individuals are considered a sensitive biotic community and species of limited distribution. To reduce potentially significant impacts to Valley oak trees, a species of limited distribution, **Mitigation Measure BR-6** will include the avoidance and buffering (as further described below) of valley oak treess located within the project area, including the two bat habitat trees disclosed in *subsection a*.

The University of California, Division of Agricultural and Natural Resources (UC-ANR), and the County's *Voluntary Oak Woodland Management Plan* (October 2010) have identified several factors, such as irrigation, soil compaction (resulting in decreased infiltration and oxygen availability to roots), pesticide and herbicide use, fertilizer use, and mechanical practices such as disking or seeding for cover crops, when conducted within the dripline of oak trees can contribute to their decline[21]. These sources identify a root protection zone (RPZ) that is roughly one-third larger than the drip line so that associated root structure is not adversely affected. Therefore, **Mitigation Measure BR-6** will also include providing an RPZ consistent with the County's *Voluntary Oak Woodland Management Plan*, and a permanent means of RPZ demarcation (such as rock wall, cattle fencing or similar) will be installed to protect root structures during ongoing vineyard operation.

Implementation of this measure is anticipated to reduce the project by approximately 1 acre and reduce tree removal from 36 trees to 21 trees, resulting in approximately 1.35 acres of oak woodland and associated cover canopy removal. Project area removed because of this avoidance measure will be included in a Preservation Area (as further described below) that is also required by this Mitigating Measure. To ensure that avoided oak trees, oak woodland, and associated cover canopy removed as a result of this measure are preserved consistent with applicable General Plan Goals and Polices, the Conservation Regulations, and to and to reduce potentially significant cumulative impacts on oak woodlands to a less than significant level, **Mitigation Measure BR-6** will require the permanent preservation of a minimum of 2.7 acres of oak woodland and associated vegetation cover canopy on the project site: a minimum of 1.35 acres of which shall occur on land with slopes of 30% or less and that are located outside of required aquatic resource setbacks. This area will be identified as the *Preservation Area.*

Regarding the fifteen (15) Valley oak trees to be removed, **Mitigation Measure BR-6** will also require their replacement at a 3:1 ratio to effectively replace this species of limited distribution, and associated woodland and canopy cover removed, consistent with NCC Section 18.108.020.

[19] Napa County General Plan Draft Environmental Impact Report, Volume 1, Section 5.4, and Table 4-3, Biological Resources, February 2007
[20] Napa County Baseline Date Report, Biological Resources Section, Table 4-4 and Map 4-1, Version 1, November 2005.
[21] The University of California – Division of Agricultural and Natural Resources, Publication 21577, "Vineyards in an Oak Landscape", 1998.

The project as proposed with implementation **of Mitigation Measure BR-6** would reduce potentially direct, indirect, and cumulative impacts to valley oak trees and oak woodland, to a less than significant level, as well as achieve consistency with applicable General Plan Goals and Polices and the Conservation Regulations. Further, this measure will also address potential GHG impacts as disclosed in **Section VIII** (**Greenhouse Gas Emissions**).

Mitigation Measure BR-6: The owner/permittee shall revise Erosion Control Plan #P19-00069-ECPA prior to approval to include the following measures to reduce potentially significant direct, indirect and cumulative impacts to oak species of limited distribution (i.e. valley oaks) and to oak woodlands:

a. Revise Erosion Control Plan #P19-00069-ECPA prior to approval to avoid the following Valley oak trees located within the fringes of project area or are of biological value (i.e. bat habitat trees), and provide them with a with a root protection zone (RPZ) buffer that is one-third larger than their driplines: Valley Oak trees #18 through #27; #29 through #31; and #43 and #44 (as identified in WRA, Inc., September 2019, Response to Comments, V. Sattui Hibbard Ranch Vineyard Conversion). The RPZ buffer shall not contain vineyard avenues or tractor turn-around areas, and a permanent barrier or other adequate demarcation of the RPZ, as acceptable to the County, shall be indicated on the ECPA plans. The RPZs shall be subject to review and approval by the County prior to incorporation into Erosion Control Plan #P19-00069-ECPA.
b. Prior to the commencement of vegetation removal or earth-disturbing activities associated with #P19-00069-ECPA the owner/permittee shall submit to the County for review and approval an Oak Tree Replacement Plan replacing at a 3:1 ratio for the 15 valley oak trees being removed. The Replacement Plan 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 and inspected by the county prior to the commencement of vegetation removal and earth disturbing activates associated with vineyard development under #P19-00069-ECPA.
c. Revise the proposed wildlife exclusion fencing layout to limit any new wildlife exclusion fencing to the periphery of development areas as modified by this mitigation measure. Fencing revisions shall also be reflected in the *Perimeter and Vineyard Fencing Plan* pursuant to **Mitigation Measure BR-5.**
d. Revise Erosion Control Plan #P19-00069-ECPA prior to approval to identify a Preservation Area, totaling a minimum of 2.7-acres of oak woodland and associated vegetation cover canopy that includes areas removed because of **Mitigation Measure BR-6(a):** a minimum of 1.35 acres of the Preservation Area shall occur on land with slopes of 30% or less and located outside of required aquatic resource setbacks. The area shall be designated for preservation in a deed restriction, mitigation easement with an organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the oak woodland (e.g., conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The preservation areas shall be determined by the County or a qualified botanist/biologist: determinations by a qualified botanist/biologist shall be submitted to Napa County for review and approval prior to their incorporation into the ECPA. The owner/permittee shall record the deed restriction or mitigation easement within 90 days of the County's approval of #P19-00069-ECPA. In no case shall the erosion control plan be initiated until said deed restriction or mitigation easement is recorded.
e. To protect trees, woodlands, and RPZs during construction, prior to the initiation of any vegetating removal or earthmoving activities temporary fencing shall be placed at the edge of the dripline or RPZ of trees to be retained that are located within 50-feet of the project area prior to any vegetating removal or earthmoving activities. The precise locations of protective fencing shall be inspected and approved by the Planning Division prior to the commencement of any vegetation removal or earthmoving activities. No disturbance, including grading, planting, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation and maintenance. Prior to vineyard planting the RPZ buffer temporary fencing shall be replaced with the permanent barrier identified in **Mitigation Measure BR-6(a)**.
f. The owner/Permittee shall refrain from severely trimming (typically considered more than 1/3rd of the canopy) trees and vegetation to be retained adjacent to the vineyard conversion areas.
g. 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 #P19-00496-ECPA shall be replaced on-site with fifteen-gallon native trees at a ratio of 2:1 at locations approved by the planning director. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan. Replacement trees shall be monitored and maintained as necessary for a minimum of 5 years to ensure they achieve at least 80% survival. If tree plantings are not achieving this success criterion during any monitoring year, the owner/Permittee shall be responsible for replacement tree plantings and monitoring them for an additional 5 years to ensure they achieve at least 80% survival.

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion

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

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Archeological sensitive areas and Archeological sites layers: Flaherty Cultural Resource Services, August 2018, Cultural Resource Reconnaissance Hibbard Ranch, and February 2019, Addendum Cultural Resource Reconnaissance Hibbard Ranch (**Exhibit C)**.

Flaherty Cultural Resource Services conducted an archeological evaluation of the project site which included a check of information on file with the California Historical Resources Information System Northwest Information Center to determine presence or absence of previously recorded historic or prehistoric cultural resources; a check of relevant historic references to determine the potential for historic era archaeological deposits or structure; and a surface reconnaissance survey of the project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a-b. The cultural resource reconnaissance (**Exhibit C**) identified one potential cultural/historical resource within the project parcel (CA-NAP-859) that consist of a child's grave. The project has been designed to avoid the area containing this resource.

No other cultural resources were found within the project site, and while the project has been designed to avoid the site noted above, there is the possibility that buried archaeological or historic deposits/resources could be present and accidentally discovery could occur. Therefore, the proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidently.

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

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

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

ii. If human remains are encountered the Napa County Coroner shall be informed to determine if an investigation of the cause of death is required and/or if the remains are of Native American origin. Pursuant to Public Resources Code Section 5097.98, if such remains are of Native American origin the nearest tribal relatives as determined by the State Native American Heritage Commission shall be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity.

iii. All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

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

Discussion

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

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

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

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

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

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

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

Discussion

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

i) The Carneros fault traverses the southwest end of the site: the Carneros fault is an ancient fault that shows no activity during the last 2 million years. No active faults have been mapped on the project site; the closest active fault is West Napa fault located over 6 miles from the project, site (Napa County GIS faults and earthquakes layers, and Gilpen Geosciences Inc., March 2019, **Exhibit D-1).** 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. Therefore, no impact would occur.

ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological Society, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.

iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.

iv) Active and dormant landslides have been identified within the project parcel and the project area (Gilpin Geosciences, Inc., March 2019, January 2020, and July 2020 –**Exhibits D-1** though **D-3**). The project as proposed would include the stabilization of four landslides and setbacks of 25 to 50 feet from other unstable areas consistent with the Project Geologist's recommendations. Additionally, land/soil preparation (ripping) of up to 48 inches is proposed unless located in areas where slope stability may be a concern as identified in the project's Geotechnical and Landslide Investigations, as specified in the ECPA and Narrative (**Exhibit A**). With incorporation of the stabilization, setback and land preparation recommendations of the Project Geologist into the project, the potential for the project to cause potential substantial adverse effects associated with landslides are considered to be a less-than-significant impact (also see Subsection c below for additional discussion regarding slope stability and landslides).

b. Soils of the project area, as mapped and classified in the United States Department of Agriculture Soil Conservation Service's Napa County Soil Survey[22] consist of Fagan Clay Loam (Soil Series #131, #132 and #133) that exhibits medium to rapid runoff and a moderate to high erosion potential, and Felton Gravely Loam (Soil Series #136) that exhibits rapid to very rapid runoff and a moderate to high erosion potential.

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

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion because of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through a no-till cover crop with vegetative cover densities of at least 80%. Vineyard avenues would also include vegetative cover densities of at least 80%. The cover crop provides the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by PPI Engineering (October 2019, **Exhibit E**), the proposed vineyard conversion is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 5**). Under existing conditions, the annual soil loss is anticipated to average 205.74 tons per year across the development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 159.9 tons per acre per year, or a reduction of approximately 22.3% as compared to existing conditions.

Table 5 – USLE Soil Loss Analysis

Vineyard Block	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
1	30.04	24.03	6.01	-20%
2	0.95	0.75	0.19	-20%
3	3.93	3.14	0.79	-20%
4	10.27	7.8	2.47	-24%
5	23.89	19.11	4.78	-20%
6	60.86	48.69	12.17	-20%
7	53.47	38.5	14.97	-28%
8	16.94	13.56	3.39	-20%
9	4.71	3.77	0.94	-20%
Access Road	0.69	0.56	0.14	-20%
Total	**205.74**	**159.90**	**45.84**	**-22.3%**

Source: PPI Engineering, October 2019

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the proposed project, including soil loss experienced during vineyard and cover crop establishment, consist of permanent no-till cover, straw mulching, straw wattles, and other practices as needed.

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:

[22] USDA, Soil Survey of Napa County, 1978.

The following conditions shall be incorporated by referenced into Erosion Control Plan #P19-00069-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

i. Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, water bars, the application of straw mulch at a rate of 3,000 pounds per acre. rolling dips, subsurface drainlines and rock aprons/outfalls, and no-till cover crop 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 (#P19-00069-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.

ii. Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80% within the vineyard and vineyard avenues. The cover crop may be strip sprayed, with a strip no wider than 12 inches wide at the base of vines, with post-emergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

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

c. Bedrock of the subject parcel and project site consists of a Great Valley Sequence. As discussed above, while the project parcel and site contain areas of instability (active and dormant landslides), the project has incorporated the stabilization, setback and land preparation recommendations of the Project Geologist so that the project does not result in increased instability leading to potential landslides or ground failure. Additionally, the proposed project identifies the soil types in the project area and addresses potential soil instability. Therefore, the proposed project with incorporation the Project Geologist's recommendations is not anticipated to result in any significant impacts associated with on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.

d. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA, 1978) as Fagan Clay Loam (Soil Series #131, #132 and #133) that exhibits a moderate to high shrink-swell potential, and Felton Gravely Loam (Soil Series #136) that exhibits a low shrink-swell potential. In addition, no structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be less than significant impacts associated with expansive soils.

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

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

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).[23] 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.

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

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as the part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. The

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

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

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

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

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

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

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

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

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

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO_2), methane, ozone, and the fluorocarbons, which contribute to climate change. CO_2 is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. In this case, CO_2 is used as the reference atom/compound to obtain atmospheric carbon CO_2 effects of GHG. Carbon stocks

are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (http://ncasi2.org/COLE/faq.html).[24]

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 development area and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below).

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

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

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.[25] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 56 acre vineyard development (including gully repair) would be approximately 526.4 MT CO_{2e} (56 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 53.6 acres of existing vegetation to vineyard and gully repair encompassing approximately 1.5 acres. 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 2018 CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2018 Draft CAP carbon stocks and the acreages of vegetation types within the project site, total carbon stocks for the project site are estimated to be approximately 190.6 MT C or approximately 699.5 MT CO_{2e} (**Table 6**). For GHG disclosure and analysis purposes developed/ruderal land will be considered and included in the grassland totals, and acreages will be rounded up to the nearest whole number.

Table 6 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Project Acreage[1]	Carbon Storage/Stock per Acre (MT C/acre)[1]	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Oak Woodland	3	95.1	285.3	1,047.1
Grassland[2]	53	1.4	74.2	272.3

[1] Rounded to the nearest whole acre.
[2] Includes approximate 1.5-acre gully repair area.
Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, April 2022

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20 to 25% while others have suggested 50%.[26] Using 50% as a more conservative estimate, the proposed

[24] "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO_2. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).
[25] 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.
[26] Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

project could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 1,142.1 MT CO_{2e} (**Table 7**).

Table 7 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Project Acreage[1]	Carbon Loss/Emission per Acre (MT C/acre)[1]	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO2e
Oak Woodland	3	89.6	268.8	986.5
Grassland[2]	53	0.8	42.4	155.6
Total			**311.2**	**1,142.1**

[1] Rounded to the nearest whole acre

[2] Includes approximate 1.5-acre gully repair area.

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

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 53.6-acre agricultural development would be approximately 35.9 MT CO_{2e} (53.6 multiplied by 0.67 MT CO_{2e})[27].

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 CO_2 acre per year, while grasslands, shrublands and developed areas 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 1.3 MT C per year or approximately 4.7 MT CO_{2e} per year.[28]

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

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 698.4 MT CO2e and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 6.9 MT CO_{2e} per year (**Table 8**).

Table 8 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of $C0_{2e}$		Annual Ongoing Emissions in Metric Tons of $C0_{2e}$	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	526.4	Vehicles and Equipment	35.9
Vegetation and Soil	1,142.1	Loss of Sequestration	4.7
Total	**1,668.5**	**Total**	**40.6**

Source: Napa County Conservation Division, November 2018

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 1,668.5 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

[27] Operational emissions do not include the project's approximate 1.5-acre gully repair.

[28] 1.96 acres of oak woodland times 0.425 MT C = 0.83 MT C, and 2.98 acres of ruderal times 0.057 MT C = 0.17, totaling 1.0 MT C

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 approximately 0.4% 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 40.6 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 stated in **Section IV, Biological Resources,** the proposed project as mitigated pursuant to **Mitigation Measure BR-5** would result in the avoidance of 15 Valley Oak trees encompassing approximately 1 acre of oak woodland and associated vegetative canopy cover. Further, implementation of **Mitigation Measure BR-5**, the project would result in the permanent preservation of approximately 1.35 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 45 trees to replace the 15 Valley 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 twice the amount of lost carbon sequestering oak woodland, half of which is located on developable land, and replacing individual Valley Oaktree removal at a 3:1 ratio.

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 **Section XVII (Transportation),** harvest would generate up to approximately 24 passenger vehicles round trips and eight truck round trips per day (resulting in up to 32 round trips per day) for approximately 14 days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 24 passenger vehicles round trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less-than-significant impacts related to operational GHG emissions are anticipated.

Given that the proposed project would result in negligible change to carbon storage due to conversion of fallow field to vineyard, and that operational vehicle miles traveled fall well below the established threshold of 110 daily trips, the project is considered to be consistent with the State's long-term climate goals of being carbon neutral by 2045; therefore, a less than significant impact is anticipated.

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

Discussion

a-b. Installation of the proposed 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).

The storage and mixing of agricultural chemicals, and the storage and maintenance of agricultural equipment for the project would occur at a ranch operations center located on the abutting parcel to the West (APN 050-380-017: Lands of V. Sattui Winery Inc.) which is currently used to support existing vineyards and operational activities occurring on the project parcel. The facilities associated with the ranch operations center are at least 50 feet from creeks in the area. Fertilizers would be applied as necessary to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vinerows for weed management. Project storage and staging areas would be located within proposed clearing limits.

One unnamed blue-line tributary to Carneros Creek bisects the project parcel generally in a northeast to southwest direction where it connects to Carneros Creek, which is generally located along the southern property line of the project parcel. There are several county definitional and ephemeral streams within the project site that are tributary to the blue-line stream that generally run in an east/west direction (**Figure 1** and **Exhibit A).** The proposed project as designed provides minimum setbacks of between 65 feet up to 150 feet from blue-line streams and county definitional streams consistent with the minimum setback requirements pursuant to NCC Section 18.108.025. Ephemeral streams and wetlands are provided with a 50-foot setback buffers that include a 26-foot-wide undisturbed filter strip and a 24-foot-wide vegetated turnaround avenue. The vegetated avenues would be used seasonally on an intermittent basis by farm equipment for

ongoing vineyard operations. Also see **Section IV(b-c) (Biological Resources)** for additional discussion on aquatic resource impacts and setbacks.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is considered less than significant because: i) the project as proposed with implementation of **Mitigation Measure BR-4** would provide adequate permanent buffers from the blue-line stream and 50 foot setback buffers from wetlands and ephemeral drainages comprised of a 26-foot-wide undisturbed filter strip and a 24-foot-wide vegetated turnaround avenue used seasonally on an intermittent basis; ii) project staging and operational activities would be a minimum of 50 feet from aquatic resources; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions 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. Also see the Water Quality Condition of Approval in **Section X(e) (Hydrology and Water Quality)** of this Initial Study.

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

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

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

c. The nearest school (Browns Valley Elementary) is located approximately 1.5 miles to the east of the project site within the City of Napa. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.

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

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

f. There would be negligible numbers of workers visiting the project site on a temporary basis for ECPA and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in no permanent substantial increase in the number of people working or residing at 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 no impact would occur.

g. No structures are proposed as part of the project. The project site is located in an area identified as having moderate fire severity (CALFIRE 2007 - https://egis.fire.ca.gov/FHSZ/). The risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i. Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
	iv. Impede or redirect flood flows?	☐	☐	☒	☐
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

On April 21, 2021, Governor Gavin Newsom declared a drought emergency in the state of California and as of July 8, 2021, 50 counties are under the drought state of emergency, including Napa County. The Governor directed the Department of Water Resources to increase resilience of water supplies during drought conditions. On June 8, 2021, the Napa County Board of Supervisors adopted a resolution declaring a Proclamation of Local Emergency due to drought conditions which are occurring in Napa County. On October 19, 2021, the Governor issued a proclamation extending the drought emergency statewide. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources

In March 2022, Governor Newsom enacted Executive Order N-7-22, 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 8, 2022, and August 9, 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 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. Because the parcel is located outside of the GSA Subbasin, a parcel-specific Water Availability Analysis was performed. 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." [29]

The project site is predominately located within the Carneros Creek drainage (or sub-watersheds) with approximately 1-acre of the northern end of proposed Development Area 6 occurring within the Browns Valley Creek drainage, which are in the larger Napa River watershed. The Napa River is designated as critical habitat for steelhead (Napa County GIS USFWS critical habitat layer). The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the Clean Water Act. Historically, the construction of large

[29] 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.

dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

In response, the San Francisco Bay Regional Water Board has implemented the following programs. In 2009 the San Francisco Bay Regional Water Board adopted total maximum daily load (TMDL) for the Napa River (Order #R2-2009-0064), which calls for reductions in the amount of fine sediment deposits into the watershed to improve water quality and maintain beneficial uses of the river, including spawning and rearing habitat for salmonid species. Several watershed stewardship groups have developed management plans and are planning or have implemented large-scale projects to enhance water quality and stream-riparian habitat with the watershed (San Francisco Bay Regional Water Board, 2009).

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan[30]"; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board[31].

One unnamed blue-line tributary to Carneros Creek bisects the project parcel generally in a northeast to southwest direction where it connects to Carneros Creek, which is generally located along the southern property line of the project parcel. There are several county definitional and ephemeral streams within the project site that are tributary to the blue-line stream that generally run in an east/west direction (**Figure 1** and **Exhibit A**). Carneros Creek drains to the Napa River approximately 5.5 miles southeast of the project parcel.

While the proposed project has been designed to provide setbacks from blue-line and definitional streams pursuant to subject to the County Conservations Regulations (NCC Chapter 18.108) as they existed prior to amendment by the WQTPO[32], the proposed project provides setbacks of 26 feet from ephemeral streams and wetlands where a minimum 35 feet and 50 feet, respectively, are currently required. Also, see **Section IV** (**Biological Resources**) for additional discussion analysis.

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.

   Agricultural Erosion Control Plan #P19-00069-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. While the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to control soil loss and runoff as a result of the project, as discussed in **Section IX** (**Hazards and Hazardous Materials**), **Mitigation Measure HWQ-1** is being implemented to ensure that polluted runoff, as a result of hazardous material use associated with ongoing vineyard operations, does not negatively affect water quality.

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

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

[32] This application was submitted on March 8, 2019, prior to the effective date of the recently enacted Water Quality and Tree Protection Ordinance (WQTPO - Ordinance #1438, effective on May 9, 2019), processing and review of this application will be subject to the County Conservations Regulations (NCC Chapter 18.108) as they existed prior to amendment by the WQTPO.

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 because 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 with implementation of **Mitigation Measure HWQ-1** (discussed below in *subsection b*) and the identified condition of approval is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, resulting in a less than significant impact to water quality.

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

The project proposes to irrigate approximately 32.2-acres of the 33.5-acres of planted vineyard with surface water diverted and stored in the property's existing reservoir (Water Rights Permit #20779, Application #30005 - **Exhibit I:** Structural Erosion Control Plan #95029), the reaming ±1.3 planted acres would be irrigated by groundwater supplied by the property's two existing on-site wells, because this area is not within the Water Rights Place of Use (POU). No frost protection or heat protection is proposed as part of the project. The Water Right allows a total of 147 acre-feet per year (AF/yr) to be appropriated from October 1 or each year to May 15 of the succeeding year to be stored in in up to three reservoirs each with a storage capacity of 49 AF. As indicated only one of the reservoirs subject to the Water Right has been constructed.

The existing water uses on the project parcel consist exclusively of vineyard. Surface water is currently used to irrigate almost the entirety of the ±102.9 net-planted acres of existing vineyard, with ±4.6-acres of existing vineyard being irrigated with ground water, resulting in ±98.3-acres of planted vineyard being supplied by surface water. The 4.6-acres of existing vineyard irrigated with groundwater is located mostly along the eastern edge of the project parcel, and is irrigated with groundwater due to provisions in the property's water right which do not allow irrigation with surface water in these areas (i.e. are outside the Water Rights POU).

Based on calculations provided by the owner/applicant the exiting vineyard utilizes approximately 0.19 AF/yr per acre of planted vineyard (O'Connor Environmental, Inc., September 2019 - **Exhibit H**), resulting in an existing surface water demand of approximately 18.7 AF/yr (±98.3 times 0.19 AF/yr). Specific to existing vineyard supplied by groundwater, the existing 4.6-acres of vineyard utilizes ±0.87 AF/yr (4.6-acres times 0.19 AF).

The owner/applicant has indicated that the proposed vineyard could utilize up to 0.4 AF/yr per acre of vineyard during establishment. While it is anticipated that after the vineyard is established water demand may drop to 0.19 AF/yr per acre of vineyard consistent with the project parcel's existing vineyard, this analysis will use the 0.4 AF/yr per acre of vineyard for the project's water demand. Therefore, the proposed vineyard is anticipated to demand 13.4 AF/yr of water.

Of that, approximately 12.9 AF water per year would be supplied by surface water (32.2 planted acres times 0.4 AF per acre of vineyard), resulting in and overall use of 32.1 AF/yr of surface water, which is below the site's reservoirs capacity (49 AF) and the Water Rights appropriation amount.

Specific to groundwater the 1.3- acres of proposed vineyard irrigated with groundwater is anticipated to demand ±0.52 AF/yr. 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 (O'Connor Environmental, Inc., September 2019 - **Exhibit H**). The WAA estimates the onsite groundwater recharge, overall availability, and both existing and proposed use, in order to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Documented adopted by the County May 12, 2015. 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 wells.

The proposed vineyard in conjunction with existing on-site vineyard irrigated with groundwater would total ±1.39 AF/yr. The project WAA also includes other groundwater uses on neighboring parcels near the project wells to provide a conservative estimate of overall groundwater use and potential effects. Other groundwater uses include approximately 6.0 acres of vineyard, 0.6 acres of orchard, a

primary residence, and winery, resulting in an existing groundwater use of 7.78 AF/yr in the WAA's study area. This in conjunction with the proposed vineyard irrigated with groundwater results in a demand of ±9.17 AF/yr in the WAA study area.

The Project WAA included two groundwater recharge scenarios. The first, Water Year 2010, was selected to represent average year conditions because annual precipitation totals across most of Napa County were close to their long-term 30-year averages, the second, Water Year 2014, was selected to represent drought conditions because annual precipitation totals were between 41 and 73% of long-term 30-year averages for much of Napa County. The WAA also estimated potential recharge based on a 110-acre project recharge area (consisting of the sub-watershed the project wells are located in) and a recharge rate for the 439-acre project parcel. For the 110-acre project recharge area a recharge rate of 28.4 AF/yr is estimated during the drought conditions and a rate of 77.0 AF/yr for average water years. For the 439 acre-project parcel an estimated recharge rate of 102.4 AF/yr is estimated during drought conditions and of 296.3 AF/yr for average water years.

While the Project WAA would indicate that there is adequate groundwater for existing uses and portions of the proposed project that would rely on groundwater, the proposed project wells are located within 1,500 feet of a significant stream, which would require a Tier 3 Analysis to demonstrate there is not a significant adverse effect on surface waters because of groundwater use. Because the Project WAA does not include a Tier 3 Analysis there is a potentially significant impact on groundwater/surface water interaction as a result of the project.

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

> **Mitigation Measure HWQ-1:** To avoid potential impacts to groundwater the owner/permittee shall revise Erosion Control Plan #P19-00069-ECPA, prior to approval, to remove development areas located outside the Place of Use prescribed under the property's water right Permit #20779 (Application #30005).

While precipitation amounts may vary from year to year, resulting in drought and wet year cycles, the data supports that historical hydrologic conditions are similar to more recent hydrologic conditions, and that there will be sufficient surface water supply reliability to support the proposed project. After planting of the proposed vineyard should lower surface water diversion and storage occur, any impacts an agricultural crop may suffer due to dry-farming is outside the scope of CEQA, because not irrigating a commercial crop is not considered to cause a significant environmental impact. To ensure that the new vineyard would not use groundwater if no surface water under the water rights is available (i.e., the proposed project would not irrigate when no water is available) and that there is adequate water to initiate the proposed vineyard, the project would be subject to the condition of approval below (if approved) specifying that no other irrigation source, including but not limited to wells, or imported water, shall be used to serve the vineyard without additional environmental review, if necessary, and that a minimum of 32.1 AF of water is in storage prior to the initiation of vegetation removal and earth-disturbing activities for the project (#P19-00069-ECPA).

Considering i) anticipated annual surface water use of the proposed project and existing uses of approximately 32.1 AF/yr is below the project Parcel's Water Rights storage capacity of 39 AF and appropriation amount of 147 AF/yr ii) that implementation of Mitigation Measure HWQ-1 would eliminate groundwater use from the proposed project; and iii) incorporation of the water supply and use conditions 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.

With implementation of **Mitigation Measures BR-6** and **HWQ-1** the project would be reduced by approximately 2.3-acres, which would likely reduce potential water demand by approximately 1 AF/yr.

> **Water Supply – Condition of Approval:** The water source for vineyard developed and maintained pursuant to #19-00069-ECPA, including but not limited to irrigation, frost protection and heat control, shall be surface water appropriated under State Water Resources Control Board, Division of Water Rights, Permit #20779 (Application #30005). Groundwater shall not be utilized to develop or maintain the vineyard subject to # P19-00069-ECPA. No new or existing on-site or off-site water sources, other than the surface water evaluated as part of the proposed project shall be used for irrigation of the proposed vineyard. Any other proposed irrigation source, including but not limited to wells or imported water to serve the vineyard, shall not be allowed without additional environmental review, as necessary, and may be subject to modification to this ECPA. Before the start of vegetation removal and earth-disturbing activities for P19-00069-ECPA, the owner/permittee shall demonstrate that a minimum of 32.1 acre-feet of surface water is in storage on the project site.
>
> **Groundwater Management, Wells – Condition of Approval:** This condition is implemented jointly by the Public Works and PBES Departments:
>
> The owner/permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly) for the Project Wells. Such data shall be provided to the

County, if the PBES Director determines that substantial evidence indicates that water usage is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

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

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

c. Earthmoving activities have the potential to alter the natural pattern of surface runoff, which could lead to areas of concentrated runoff and/or increased erosion. The conversion of existing vegetation to 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 are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff. These features include 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 3,000 pounds per acre. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibits E** and **G** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include straw wattles, rolling dips, subsurface drainlines and rock aprons/outfalls. Erosion control features would maintain soil losses below the tolerable levels for the soil types found on the site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs beyond pre-development conditions because of the proposed project. Additionally, these erosion control features would not significantly alter the existing topographic contours of the project site or parcel.

A Hydrologic Analysis for the proposed project was prepared by PPI Engineering (PPI Engineering, October 2019 and April 2020 - **Exhibit E** and **Exhibit G**). The Hydrologic Analysis identified nine sub-watersheds for the analysis and utilized the Natural Resource Conservation Service Technical Release 55 (TR-55) method to conclude that there would not be an increase in peak flow for all subareas in the project area (**Table 9**). The Hydrologic Analysis also concluded that the runoff time of concentration, which is the time it takes for runoff to flow from the upper most point in each watershed to the watershed's outlet, is anticipated to remain the same as existing conditions.

Table 9 – Hydrologic Modeling Calculations (TR-55) Results: Runoff Rates

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	**10-year**	**50-year**	**100-year**
Watershed 1				
Pre-project conditions	98.11	229.55	383.61	453.59
Post-project conditions	93.25	220.97	372.62	441.78
Change (cfs)	-4.86	-8.58	-10.99	-11.81
Watershed 2				
Pre-project conditions	12.01	24.22	37.79	43.82
Post-project conditions	11.36	23.39	36.87	42.87
Change (cfs)	-0.65	-0.83	-0.92	-0.95
Watershed 3				
Pre-project conditions	4.44	9.33	14.84	17.28
Post-project conditions	4.19	8.99	14.45	16.88
Change (cfs)	-0.25	-0.34	-0.39	-0.40
Watershed 4				
Pre-project conditions	4.15	9.27	15.21	17.91
Post-project conditions	4.15	9.27	15.21	17.91
Change (cfs)	0	0	0	0
Watershed 5				
Pre-project conditions	4.26	9.35	15.14	17.77
Post-project conditions	4.00	8.99	14.72	17.33

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Change (cfs)	-0.26	-0.36	-0.42	-0.44
Watershed 6				
Pre-project conditions	6.88	15.83	26.20	30.93
Post-project conditions	6.42	15.18	25.42	30.12
Change (cfs)	-0.46	-0.65	-0.78	-0.81
Watershed 7				
Pre-project conditions	6.88	15.44	25.30	29.77
Post-project conditions	6.88	15.44	25.30	29.77
Change (cfs)	0	0	0	0
Watershed 8				
Pre-project conditions	6.60	15.22	25.31	29.89
Post-project conditions	6.60	15.22	25.31	29.89
Change (cfs)	0	0	0	0
Watershed 9				
Pre-project conditions	9.14	21.77	36.57	43.36
Post-project conditions	9.14	21.77	36.57	43.36
Change (cfs)	0	0	0	0

Source: PPI Engineering, October 2019 and April 2020

The proposed project's improvement of runoff flow rates is consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be greater than predevelopment conditions. Additionally, as discussed in **Section VII (Geology and Soils)**, the proposed project is 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 or considerable on or offsite erosion, siltation, or flooding.

The project site is not located in an area of a planned stormwater drainage system, nor is it not directly served by a stormwater drainage system. As discussed above, no increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. 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[33]. 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 project site is not subject to a Water Quality Control Plan approved by the State Water Board pursuant to Division 7 of the Water Code, or a Sustainable Groundwater Management Plan. As such, no conflicts or impacts associated with Water Quality Control or Sustainable Groundwater Management Plans are anticipated to occur.

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

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

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

Discussion

a. The proposed site is in a rural area of Napa County and the nearest established community, Fairfield, is approximately 3.5 miles southeast of the project site. Therefore, the proposed vineyard and subsequent vineyard operations would not physically divide an established community and no impact would occur.

b. Surrounding land uses consist predominantly of undeveloped land, scattered rural residential, and vineyards. Surrounding parcels are zoned Agricultural Watershed (AW) 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 because 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 33% and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require post-development sediment erosion conditions and runoff characteristics not be greater than pre-development conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BR-1** through **BR-3** 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 Resources Reconnaissance Survey 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-3** and **BR-5** potential impacts to special-status bat and 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** and **BR-5** and the fencing and tree/woodland 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 Policy CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey was prepared for the proposed project (**Exhibit B**).
- The proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands, as there are no wetlands within the project site. Furthermore, with implementation of **Mitigating Measure MMM-1** buffers from wetlands would be increased from 26 feet to 50 feet.
- The proposed project with implementation of **Mitigation Measure BR-4** is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity and the reestablishment 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 Permanent Erosion and Runoff Control Measures condition of approval, the proposed project would reduce soil loss and sedimentation, and result in no change to runoff.

- The proposed project is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The proposed project is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The proposed project is consistent with the General Plan land use designation of AWOS, and is therefore consistent with Policy AG/LU-20.

For these reasons, the proposed project, with the mitigation measures and conditions of approval incorporated, would not be in conflict with applicable County regulations, policies, or goals and is anticipated to have a less than significant impact with respect to applicable County regulations, policies, or goals.

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Syar Napa Quarry, located over 6 miles to the east/southeast of the project site. Proposed site improvements and development of vineyard on the parcel would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are typically developed with agricultural uses (vineyards, livestock grazing, and wineries), rural residential and undeveloped woodlands and grasslands. The nearest residences are located approximately 1,000 feet to the north and east of the project area. Additionally, adjacent proprieties and properties in the immediate area contain vineyard.

Activities associated with installation of the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. **Table 10** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 10**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 10 – 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 11 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 11 – Estimated Distance to dBA Contours from Construction Activities [1]

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

[1] Based on a source noise level of 90 dBA
Source: Napa County Baseline Date Report, Noise Section Table 6-13, Version 1, November 2005

Based on distances to existing residences, noise associated with project construction would be approximately 55 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, Version 1, November 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. **Table 12** 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 12 – Estimated Distance to dBA Contours from Farming Activities [1]

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

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be 50 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). Noise levels from routine operation and maintenance

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

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

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

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

Discussion

a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of vineyard. It does not involve the construction of new homes, businesses, roads, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of employees to the project site on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the project site on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the proposed project vicinity or greater region, either directly or indirectly. No impact would occur.

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

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

iii.	Schools?	☐	☐	☐	☒
iv.	Parks?	☐	☐	☐	☒
v.	Other public facilities?	☐	☐	☐	☒

Discussion

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

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

Discussion

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

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

Discussion

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

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

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

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

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

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

Currently, the project parcel is developed with approximately 120 gross acres of existing vineyard including associated vineyard avenues and access roads, other ranch roads, and a 49.8 acre foot off-stream reservoir. The project site is accessed from existing ranch and vineyard roads off the terminus of Henry Road (**Figures 1 – 3** and **Exhibit A**). Trucks, vehicles 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 approximately 24 trips per day during construction depending on the construction activity (land preparation, erosion control measure installation, and vineyard installation/planting). Typical construction equipment anticipated for project implementation includes a medium excavator, bulldozer, haul trucks, loader, and farm tractors with trailers. After vineyard installation operational trips that include, but are not limited to pruning typically occurring between March and April, weed control occurring between May and July and harvest occurring in September and October, are anticipated to generate up to 24 trips per day on days when these activities occur. During harvest an additional 4 to 8 grape haul truck trips are anticipated, resulting in up to approximately 32 trips per day during harvest. Vehicular equipment for ongoing vineyard operation and maintenance is anticipated to include, tractors, trucks and equipment trailers, grape haul trucks, and passenger cars and/or light trucks. Some of these trips already exists due to the operation and maintenance of the existing ±120 acres of vineyard on the project parcel. 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 be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m. or arriving around 9 p.m. and departing around 6 a.m. depending on seasonal operational activity.

Because the proposed project would be expected to generate up to approximately 24 daily trips during construction and up to approximately 24 daily trips for ongoing operations and maintenance, below the 110 trip threshold in the Office of Planning and Research guidelines and the County's TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts would be less than significant.

c. The proposed project would utilize the existing site access Henry Road for project development (**Figures 1-3**). The proposed project does not include roadway improvements and/or modifications to Henry 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 property and other agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less than significant impact.

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

e. The project would generate its largest demand for parking (approximately 12 to 24 vehicles) during pruning and harvest periods, which last up to between 7 to 14 days each. Current county ordinances do not require formal parking for agricultural projects. Parking within the ranch center and/or along existing and proposed vineyard avenues would satisfy parking demands of project installation and subsequent vineyard operations. Therefore, no parking impacts are anticipated.

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

Discussion

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on March 20, 2019.

The County received a response letter from Middletown Rancheria on March 25, 2019, indicating that the Tribe had no comments at this time, but requested that work stop and they be contacted if any cultural items are encountered during project construction. The County replied on May 13, 2019, closing the consultation invitation because consultation was not requested.

The County received a response letter from Yocha Dehe Wintun Nation on April 1, 2019, indicating that the project area is not within their aboriginal territories and had no comment. The County replied on May 13, 2019, closing the consultation invitation because consultation was not requested.

The Mishewal Wappo Tribe of Alexander Valley did not respond to the consultation invitation within the 30-day response period, and because no response to the consultation invitation was received, on May 13, 2019, the County sent a consultation closure notice to the Tribe.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project's Cultural Resource Reconnaissance Reports(Flaherty Cultural Resource Services, August 2018 and February 2019 – **Exhibit C**), identified one cultural/historic resource within the subject property (CA-NAP-859) that consist of a child's grave. The project has been designed to avoid this feature. No other cultural or historical resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified or are anticipated onsite. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

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

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

Discussion

a. The proposed project would generate a minimal number of new employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of new employees to the property on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater and four existing groundwater wells would provide irrigation water to the vineyard.

The proposed project also would include the installation of a limited number of onsite storm water runoff features such as straw wattles rolling dips, subsurface drainlines and rock aprons/outfalls, and a permanent no-till vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage 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 mitigation and standard conditions identified in **Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources), X (Hydrology and Water Quality** and **IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.

b. The approximate 54-acre vineyard (±33.5 net acres) would be irrigated predominately by surface water (Water Rights Permit #20079) with approximately 1.3-acres of vineyard being irrigated by groundwater. It is anticipated that annual surface water use of the proposed project and existing uses of approximately 32.1 AF/yr, below the project Parcel's Water Rights storage capacity of 39 AF and appropriation amount of 147 AF/yr,.

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 would have a less than significant impact on water supplies. Water availability and water use are discussed in detail in **Section X (Hydrology and Water Quality)**.

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

d-e. 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 statues and regulations. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. **WILDFIRE.** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as a Moderate Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS CalFire Layer). The project site is situated in the southern Mayacama Mountains approximately 6 miles south/southeast of Mount Veeder and approximately 0.5 miles west of the City of Napa. Elevations within the project site range from approximately 430 to 860 above msl.

a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site. Therefore, the proposed project would not impact an adopted emergency response plan or emergency evacuation plan. Refer to **Section 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. Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. The proposed project would not exacerbate wildfire risk and this impact would be less than significant.

d. Although the proposed project would alter land cover, the proposed project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would not be an increase in peak flow in the development area (see **Section X [Hydrology and Water Quality]**). The two onsite residences and three residences closest to the proposed vineyard are located on gently to steeply sloped terrain. Therefore, there are no structures or people that would be exposed to downslope or downstream flooding or landslides and the impact would be less than significant.

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

	eliminate important examples of the major periods of California history or prehistory?				
b)	Does the project have the impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

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

a. As discussed in this Initial Study, implementation of #P19-00069-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-3** and **Mitigation Measures BR-6** would avoid potential direct, indirect and cumulative impacts to special-status animal species, including bird and bat species and their habitat. The proposed new vineyard blocks would be fenced individually and in clusters where appropriate. 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 on neighboring properties would allow for continued local wildlife movement. As such, the proposed wildlife exclusion fencing with implementation of **Mitigating Measure BR-5** would minimize new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant, and the range of special-status species would not be restricted. The site's blue-line stream and definitional streams have been provided setbacks compliant with NCC Section 18.108.025 (**General provisions—Intermittent/perennial streams)** ranging from 65 to 150 feet, and with implementation of **Mitigation Measure HWQ-1** the site's ephemeral streams and wetland areas would be provided with permanently demarcated and protected buffers/setbacks. Through Tribal Notification pursuant to Pursuant to Public Resources Code 21080.3.1 (Assembly Bill 52 - Gatto) and with incorporation of standard conditions to protect cultural resources that may be discovered accidently, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Therefore, the proposed project as designed with the incorporation **Mitigation Measures BR-1** through **BR-6, Mitigation Measure HWQ-1,** and conditions of approval, would have a less-than-significant potential to degrade the quality of the environment.

b. The project site is located within the Carneros Creek and Browns Valley Creek drainages (or sub-watersheds): only approximately 1-acre of the northern end of proposed Development Area 6 occurs within the Browns Valley Creek drainage.

   The Carneros Creek drainage area contains approximately 5,718.2 acres. In 1993, vineyard acreage within this drainage was approximately 1,083.2 acres, or 18.9% of the drainage. Since 1993 approximately 397.7 acres of additional vineyard (or 7% of the drainage) have been developed to vineyard, resulting in approximately 25.9% of the drainage (or approximately 1,480.9 acres) containing vineyard. The Browns Valley Creek drainage area contains approximately 1,381.3 acres. In 1993, vineyard acreage within this drainage was approximately 109.8 acres, or 8% of the drainage. Since 1993 approximately 26.8 acres of additional vineyard (or 1.9% of the drainage) have been developed to vineyard, resulting in approximately 9.9% of the drainage (or approximately 136.6 acres) containing vineyard.

   It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Carneros Creek Drainage, that there are approximately 1,686.8 acres (29.5% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 1,480.9), results in a total potential build out of approximately 3,167.7 acres or approximately 55.4% of the drainage. 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 (43% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 136.6 acres), results in a total potential build out of approximately 730.6 acres or approximately 52.9% of the drainage. The Potentially Productive Soils layer includes lands with characteristics 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 quantify precisely 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., Carneros and Browns Velley Creeks Watershed) over the last 29 years (1993-2022) were used to project an estimation of vineyard development for the next three to five years. Over the past 29 years within the Carneros Creek Drainage, approximately 13.7 acres of agriculture were developed per year (397.7 divided by 29). Over the past 29 years within the Browns Valley Creek Drainage, approximately 0.9 acres of agriculture were developed per year (26.8 divided by 29).

Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 43.8 to 73 acres over the next three to five years within either the Carneros and Browns Valley Creek Drainages are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio in addition to NCC Section 18.108.020 which requires the preservation of 70% of the Vegetation Cover Canopy that 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, cover canopy retention, wetlands, other aquatic 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 includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended PM and equipment exhaust emissions. For construction-related dust impacts, the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in **Section III** (**Air Quality**) and shown in **Table 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 6** and **7**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

A project-specific Biological Resources Reconnaissance Survey (WRA, December 2018 and September 2019- **Exhibits B-1 & B-2**) was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the proposed project. The reconnaissance survey included a records search to identify the presence or potential presence of special-status species within the project area. The records search included the USFWS, CNDDB, and CNPS databases. As discussed in **Section IV** (**Biological Resources**), no special-status plant species or wetlands were identified in the project site. Three special-status animal species have the potential to occur within the project site; however, with the implementation of **Mitigation Measures BR-1** through **BR-3**, 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. Implementation of **Mitigation Measure BR-5** would reduce potential impacts (including cumulative impacts) to wildlife movement and use, and **Mitigation Measure BR-6** would reduce potential impacts to a species of limited distribution (i.e. Valley Oaks).

Cultural and Tribal Resources – Sections V and XVIII:

The cultural resource reconnaissance (Flaherty Cultural Resource Services, August 2018 and February 2019) identified no cultural resources within a one-mile radius of the project site. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidently and cultural sensitivity training, 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 45.8 tons/year as compared to existing conditions (**Table 5**). The reasons for this reduction are due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions, the proposed project is not anticipated to contribute cumulatively to sediment production within the Carneros and Browns Valley Creek Drainages. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

It is anticipated that approximately 12.9 acre-feet of surface water per year would be needed to irrigate 32.2 net acres of planted vineyard in the long term, resulting in and overall use of 32.1 AF/yr of surface water, which is below the site's reservoirs capacity (49 AF) and the Water Rights appropriation amount. With implementation of **Mitigation Measure HWQ-1** groundwater use associated with the proposed project would be eliminated; therefore, no potentially significant impacts associated with groundwater use would occur and the proposed project would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Additionally, with implementation of **Mitigation Measures BR-6** and **HWQ-1** the project would be reduced by approximately 2.3 acres which would likely reduce potential water demand by approximately 1 AF/yr.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the TR-55 Runoff Model has been prepared by PPI Engineering (October 2019 and April 2020 - **Exhibits F** and **G**). Because the proposed project does not create concentrated flows, or otherwise significantly alter site drainage patterns, and does not materially alter site slopes, no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Table 9**). 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]**).

Proposed Project Impacts found to be Less Than Significant

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Hazards and Hazardous Materials, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. 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 does not conflict with any current zoning for agricultural or forestry use, nor does the proposed project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. There are no known mineral resource areas within the proposed project site or immediate vicinity. This project would generate noise levels that are considered normal and reasonable for agricultural activities and consistent with the

County's "Right to Farm" Ordinance. The potential contribution to noise or vibration impacts is considered less than cumulatively considerable. Traffic related to construction and farm worker trips would not increase by a discernible amount and the relatively low and off-peak vehicle trips associated with the proposed project are considered less than cumulative considerable. The proposed project does not include the construction of structures that would result in population growth or displacement of people, would not adversely impact current or future public services, and would not require the need for utilities and service systems. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

Considering the project site's characteristics, surrounding environment, and the scope and scale of the proposed project, the proposed project with incorporation of identified mitigation measures and conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with 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 property, and reasonably foreseeable projects would be activities at a level of intensity considered normal and reasonable for a property within Agricultural Watershed zoning district. Therefore, less than significant impacts on human beings are anticipated.

LIST OF FIGURES:

LIST OF TABLES:

LIST OF EXHIBITS: