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:** Atlas View II Vineyard Agricultural Erosion Control Plan (ECPA) Application #P19-00171-ECPA

2. **Property Owner(s):** Atlas View LLC c/o Manuel Pires

3. **Lead Agency Contact:** Donald Barrella, Planner III, (707) 299-1338, donald.barrella@countyofnapa.org

4. **Project Location and APN:** 4300 Atlas Peak Road, Napa CA 94558, APN 032-120-015 (**Figures 1** and **2**)
   Section 19, Township 7 North, Range 3 West, Mt. Diablo Base
   Longitude 38°26' 06.99"N / Latitude 122°14' 20.65"W

5. **Project Sponsor:** Manuel Pires
   Atlas View LLC
   3363 State Highway 128
   Calistoga, CA 94515

   Agent: Drew Aspegren (Registered Professional Engineer #31418)
   Napa Valley Vineyard Engineering
   176 Main Street, Suite B
   St. Helena CA 94574

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

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

8. **Description of Project:** The project includes clearing of vegetation (mixed oak woodland, manzanita chaparral, and annual grassland), earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 20.2 gross acres (13.9 net acres) of new vineyard within eight vineyard blocks located on an approximate 115.75-acre parcel (**Figures 1 – 3**). The proposed project also includes construction of two attenuation basins and disturbance to existing dirt access roads including trenching for irrigation lines. Typical slopes within the project area range from 4% to 35% (approximately 0.30-acre would be located on slopes over 30%). The project would remove approximately 2.24 acres of mixed oak woodland and approximately 17.7 acres of annual grassland (**Figure 4**). Implementation of the proposed project would result in the removal of up to 254 trees with a 6-inch diameter at breast height (dbh) or greater[1]. Rock generated from earth-moving activities is expected to be minimal, and would be used for road surfacing, landscaping and erosion control features. The vineyard would be irrigated via a drip irrigation system with water from the property's three existing on-site wells. Wildlife exclusion fencing would be installed around the vineyard blocks, with gates and/or cattle guards provided at access locations. The fence may be routed around trees and other physical features, and shall be 6' wire mesh topped with two strands of barbed wire.

   Erosion Control Measures: Temporary erosion control measures include installation of fiber rolls and the application of straw mulch where seeding occurs at a rate of two tons per acre. The straw mulch would be spread mechanically or by hand. As an alternative to mulch, the seeded areas may be irrigated through germination until the onset of winter rains. Permanent erosion control measures include diversions ditches and drop inlets, rock stabilization at low points in vineyard avenues, water bars, two attenuation basins with level water spreaders at the basin outlets, and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80%. Details of the proposed erosion control measures are provided in the Atlas View II Vineyard ECP #P19-00171-ECPA, dated March 4, 2019 (revised September 19, 2019 and July 8, 2020) prepared by Drew Aspegren (RPE No. 31418) of Napa Valley Vineyard Engineering, Napa, California (**Exhibit A**).

   Earthmoving: Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation include, but are not limited to vegetation and tree removal, shallow soil ripping (36 inches maximum), rock removal, disking, the development and installation of erosion control measures, and rock storage.

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

   a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock on a 4 foot by 6 foot spacing pattern for a vine density of approximately 1,815 vines per acre.

[1] While the Biological Resources Assessment (Northwest Biosurvey, 2018 - **Exhibit B-1**) estimated the removal of 7.34 acres of woodland, the project area was reduced since the study was completed, and cleared area was added to account for vegetation removal associated water tank and chemical storage and staging areas. Per Napa County GIS Vegetation layer analysis prepared on August 6, 2020 (**Figure 4**), the project would remove approximately 2.24 acres of oak woodland. This analysis resulted in an estimate 62 trees being removed versus the 254 trees estimated by the Biologist. The discrepancy is due to the differing methodologies (Napa County GIS used density class field analysis as well as visual tree count from aerials, while the Biologist used a study plot as a statistical sample). The environmental analysis herein is based on the more conservative estimate of 254 trees for removal.

b. Installation of a 41'-9.5" concrete pad and 100,000 gallon water tank (39.5-ft in diameter, 11-ft tall) accessed by a dirt access road located adjacent to the east of the southern portion of Block B.
c. A 0.2-acre staging and storage area located at the southern end of Vineyard Block C that will include, a 8' x20' metal storage container for agricultural equipment and chemicals, and installation of a 6'x4' concrete pad designating the area for agricultural chemical mixing and washing of chemical application equipment.
b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
c. Ongoing operation and maintenance of the vineyard, which includes vine management (pruning, fertilization, pest, and disease control), weed control, irrigation and trellis system maintenance, and fruit harvesting. The management regime of the no-till cover crop would consist of mowing and springtime spot spraying by contact or systemic herbicides: no pre-emergent spraying would be utilized as part of cover crop management.
d. Environmental Commitment(s) - the owner/permittee, as part of this ECPA, has included the following element(s) into its design and plan's Narrative and Project Notes[2]:
    i. Ephemeral and intermittent streams have been provided with a minimum 35 foot setback buffer, 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 85 feet. Wetlands have been provided with a 50 foot setback buffer.
    ii. Raptor and Passerine Bird Protection: Implementation of the following protection measures i) pre-construction surveys for work conducted between February 1 and August 31; ii) implementation of no disturbance buffer from active nests if identified; and, iii) maintaining the no-disturbance buffer until nestlings have fledged.
    iii. Bat Protection: Implementation of the following protection measures i) pre-construction bat habitat and presence surveys prior to the commencement of development activities; and, ii) development and implementation of avoidance plan if bats are present.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P19-00171-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P19-00171-ECPA.

Table 1 – Implementation Schedule

Year P-1 April 1 through October 15	Clearing, rock and root removal, vegetation stacking for burning or disposal, disking, installation of permanent erosion control measures (e.g., diversion ditches) prior to vineyard layout, staking and installation of drip system, installing temporary erosion control measures.
October 15[1]	All winterization complete, including seeding, straw mulching, and straw wattle installation.
October 16 through March 31	Maintain erosion control measures, burning as allowed by government agencies.
Year P April 1 through October 15	Complete unfinished pre-plant operations, till winter cover crop and plant vineyard and begin cultural practices; maintain erosion control features.

[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.

Implementation of the proposed project would be in accordance with the Atlas View II Vineyard ECPA prepared by Napa Valley Vineyard Engineering (dated July 8, 2020 - **Exhibit A**). 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://www.pbes.cloud/index.php/s/patmC8MP4s4nNjW

9. Describe the environmental setting and surrounding land uses.

The proposed project would occur on an approximate 115.75-acre parcel located on the east side of Atlas Peak Road in Napa, California, approximately 7.5 miles north of its intersection with Monticello Road (**Figures 1-3**). The project site contains oak woodland and grassland. Development on the project parcel includes the three existing irrigation wells and access drives. An existing paved driveway and gate provides

[2] The complete language of the ECPA Environmental Commitments can be found in Section IV (Biological Resources) of this Initial Study and in **Exhibit A** under '*Special Notes – Surveys'* in the ECPA Plan's Project Narrative and Notes.

access to the project parcel from Atlas Peak Road, which leads to an existing dirt access road that allows access to two of the existing three wells on site.

The project parcel is located approximately 11 miles north/northeast of the City of Napa, within the Capell Creek Upper Reach Drainage. There is a mapped un-named blue-line stream that originates approximately in the central portion of the project parcel; generally located southwest of proposed Block E and Block F2, flowing in a southeasterly direction to the adjacent parcel. There are also four County definitional streams within the project parcel, all of which are provided setbacks pursuant to Napa County Code (NCC) Section 18.108.108 (**Exhibit A**). The streams drain to unnamed tributaries to Capell Creek, which drains to Lake Berryessa.

Surrounding land uses within the immediate vicinity (i.e. within approximately one mile) of the project parcel predominately consist of rural residential, agriculture (i.e. vineyards) and undeveloped land (naturally vegetated and/or wooded hillsides). The nearest wineries are generally located approximately 0.19 mile to the west, 0.25 miles to the south, 0.49 miles to the southwest, and 0.63 miles to the northwest (Napa County GIS: Wineries Layer). Overall, within the Capell Creek Upper Reach Drainage there are three approved wineries with a total production capacity of 28,500 gallons per year. The nearest known school, Vichy Elementary, is located approximately 7.9 miles to the south in the City of Napa (Napa County GIS: Schools Layer). The nearest residences are located approximately 100 feet (±0.02 miles) and 800 feet (±0.15 miles) south of the southwestern corner of the project parcel (±0.02 miles), and 300 feet (±0.06 miles) and 180 feet (±0.03 miles) to the north/northwest of the project parcel.

General topography of the surrounding area and the project site consists of east facing hill sides, peaks, ridgelines, and valleys typical of the Howell Mountain Range. General topography of the project site consists of gently to steeply sloping northeast and southeast facing hill slopes (slopes typically 4% to 35%) with elevations within the project site generally ranging between ±1500 feet to ±2,000 feet above sea level above msl.

No potentially active faults have been mapped in the project site and the project area is not located on an active fault and is not within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The nearest active fault to the site is the Hunting Creek-Berryessa Fault, located approximately 3 miles northeast of the site (Gilpin, 2019). Other known faults to the project site are located ±4.7 miles to the southwest, ±5.7 miles to the southeast, ±6.7 miles to the west/southwest and ±8.8 miles to the southeast (Napa County GIS: Faults and Earthquake Layers).

There is a large landslide complex mapped along the eastern flank of Atlas Peak, which includes the eastern half of the project parcel. There are two distinct ancient landslide masses crossing the project site; Vineyard Blocks A-F are proposed to lie on benches formed by the old landslide deposits. Vineyard Block G is located on a broad ridgeline with several topographic benches underlain by the shale/mélange bedrock. There are two active debris landslides immediate southeast of Blocks F2 and G; the proposed project includes a 50 foot setback from these active landslide features (Gilpin Geosciences, Inc., 2019 - **Exhibit C**; and Napa County GIS: Landslide Polygon and Landslide Lines layers).

Soils on the project parcel have been classified according to the Soil Survey of Napa County (USDA, 1978) as: Aiken Loam on 2 to 16 percent slopes (Soil Series #100/102) and Forward gravelly loam on 9 to 75% slopes (Soil Series #139/140) (refer to **Exhibits A and C**). Vegetation types of the area generally consist of oak woodland, annual grassland, shrubland and vineyards. The project site contains the following vegetation types: mixed oak woodland (67.87 acres), coast live oak woodland (17.35 acres), blue oak woodland (4.06 acres), wild oat grassland (29.28 acres), purple needle grass grassland (0.13 acres) and Baltic rush marsh (0.06 acres) (Northwest Biosurvey, 2018 - **Exhibit B-1**).

10. Background and Application History

The Atlas Fire of October 2017 moved through much of the Atlas View II Vineyard property as a fast-moving ground fire. Most of the vegetative ground cover and much of the sparse shrub layer were removed by the fire. Most of the oak woodland canopy on the property remained green and those trees whose canopies were scorched, quickly recovered. The project biologist, Northwest Biosurvey, observed that, while the fire removed most young seedlings, these should be quickly replaced, and that the mature, fire-adapted woodland on the parcel is healthy and shows good regeneration. It was also identified that by the spring of 2018, the ground cover had recovered, and shrubs were either leafing out or stump sprouting.

In August of 2020 the entire property was burned during the Hennessy Fire. Because of the fires and the date of the original Biological Resource Assessment, Northwest Biosurvey conducted a subsequent site inspection on July 21, 2021, to assess site conditions following the fire (**Exhibit B-4**). The Project Biologist has indicated the 2018 biological resource assessment completed for this property remains a valid depiction of the biological resources on the property with the understanding that the biological communities described in the original report are in the process of reestablishing themselves.

Because the project site was affected by the October 2017 and August 2020 wildfires, pursuant to NCC Section 8.80.130 (Conservation regulations for fire-damaged properties), the 2018 conditions are used as the baseline for Vegetation Retention Requirements pursuant to Napa County Code (NCC) Section 18.108.020(B). For the purposes of this initial study, any oak woodland areas affected by fire where vegetation was removed for fire safety reasons or debris removal after the October 2017 Wildfires will be considered as oak woodland, in that, this type of

removal does not modify or otherwise convert oak woodlands (or associated vegetation mapping units) to something other than oak woodland. No oak trees or oak woodland are known to have been removed from the project parcel as a result of fire safety reasons or debris removal.

Because the original submittal (dated March 29, 2019) contained the requisite application materials required by the County ECPA Application Checklist at that time the application was determined to be '*substantially conforming'* and a 'q*ualified permit application*' pursuant to the recently enacted Water Quality and Tree Protection Ordinance (WQTPO) (Ordinance #1438), that became effective May 9, 2019. Therefore, continued processing and review of this application would not be subject to the County Conservations Regulations (NCC Chapter 18.108) as amended by the WQTPO: this application is subject to the County Conservations Regulations that were in effect prior to May 2019.

While this application would not be subject to the requirements of the WQTPO, the proposed project has been designed to conform to WQTPO, requirements in that it: provides minimum 35 foot setbacks to ephemeral drainages/streams that otherwise would not have a required setback; provides minimum 50 foot setbacks from potential wetlands; and, maintains at least 70% of the vegetative cover canopy on the parcel.

The original submittal (March 29, 2019) included technical studies that assessed a total development area (approximately 25-acres) that is larger than the project as proposed and analyzed in this environmental document. While the project had been revised during processing to have a smaller development area (from 22.6 gross acres to 20.2 gross acres), the technical studies are considered adequate for use in this environmental analysis. Where applicable, the analysis that follows includes disclosures regarding any potential discrepancies in analyses.

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)	The Mishewal Wappo Tripe of Alexander Valley
U.S. Army Corps of Engineers (USACE) (R)	The Yocha Dehe Wintun Nation
Regional Water Quality Control Board (Regional Water Board) (R)	The Middletown Rancheria

12. **California Native American Tribal Consultation[3]:** Have tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun? [Also see **Section XVIII (Tribal Cultural Resources)** for additional details regarding this subject matter].

Notice of the proposed project was sent to the Yocha Dehe Wintun Nation, the Middletown Rancheria, and the Mishewal Wappo Tribe of Alexander Valley on May 24, 2019. On October 10, 2019, after not receiving a written response with a request for consultation in over 30 days from the original consultation invitation, the County sent to all three tribes a notice of conclusion of consultation proceedings. On October 28, 2019, the County received a response letter from Yocha Dehe Wintun Nation indicating that the proposed project is not within the aboriginal territories of the Tribe, and therefore declined to make comments on the project. The Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley did not respond within the 30-day notification period; therefore, no consultation was requested.

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

[3] **Note:** 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.

the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with ECP #P19-00171-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://www.pbes.cloud/index.php/s/patmC8MP4s4nNjW

- Napa Valley Vineyard Engineering, July 9, 2020,, Erosion Control Plan, Atlas Peak II Vineyard (**Exhibit A**)
- Northwest Biosurvey, September 6, 2018, Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Atlas View II Vineyard Project (APN: 032-120-015) (**Exhibit B-1**)
- Northwest Biosurvey, June 11, 2019, Response to Napa County Review Letter, Atlas Peak II Vineyard Agricultural Erosion Control Plan Application #P19-00171-ECPA (**Exhibit B-2**).
- Northwest Biosurvey, June 26, 2020, Response to Napa County Request for Updated Tree Loss Estimates, Atlas View II Vineyard Project **(Exhibit B-3)**
- Northwest Biosurvey, July 23, 2021, Site Inspection of Atlas View II Property **(Exhibit B-4)**
- Tom Origer & Associates, February 19, 2019, Cultural Resources Study of Approximately 23 Acres of the Property at 4300 Atlas Peak Road, Napa County, CA **(Exhibit C):** contents confidential.
- Napa Valley Vineyard Engineering, March 29, 2019, Water Demand and Water Availability Analysis, Atlas View II ECP **(Exhibit D-1)**
- Richard C. Slade and Associates, June 28, 2021, Results of Theoretical Water Level Drawdown Calculations for Tier II Water Availability Analysis **(Exhibit D-2).**
- Napa Valley Vineyard Engineering, September 7, 2021, Addendum to WAA (dated March 2019), Atlas View II P19-00171-ECPA **(Exhibit D-3)**
- Gilpin Geosciences, Inc., August 30, 2019, Engineering Geological & Geotechnical Evaluation, Atlas View Vineyards, 4300 Atlas Peak Road, Napa, CA (APN: 032-120-015) **(Exhibit E)**
- Napa Valley Vineyard Engineering, September 13, 2019, Soil Loss Analysis, Atlas View II Vineyard (**Exhibit F**).
- Napa Valley Vineyard Engineering, September 10, 2019, Hydrology Study, Atlas View II Vineyard (**Exhibit G**).
- Site inspection conducted by Napa County Planning Division staff on May 3, 2019.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

On the basis of this initial evaluation:

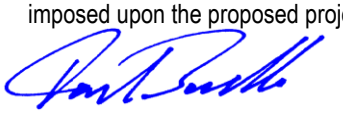
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a *(SUBSEQUENT)* NEGATIVE DECLARATION will be prepared.

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

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

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

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



Signature

November 19, 2021
Date

Donald Barrella
Napa County
Planning, Building and Environmental Services Department

ENVIRONMENTAL CHECKLIST FORM

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Except as provided in Public Resources Code Section 21099, would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
	c) 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 located in the uplands of the western Capell Creek – Upper Reach drainage with approximately 5 acres of existing grassland and woodland edge visible from the road. Atlas Peak Road is not a county Viewshed Road (NCC Chapter 18.106 Viewshed Protection Program). The nearest Viewshed road is Monticello Road located over 1.5 miles east of the project site (Napa County GIS, Viewshed roads Layer), and is not visible from the project site. The proposed project would result in approximately 4.1 acres of proposed vineyard (Blocks A and B) and the dirt access road being potentially visible from Atlas Peak Road. The remaining proposed vineyard is not visible from any public roadways. The proposed 100,000 gallon water storage tank would be located immediately east of Block B, and would be partially visible from the road, partially screened by topography and existing trees to be retained. The agricultural uses visible from the road would be similar to other neighboring land uses.

The project site is not a prominent hillside or a major or minor ridgeline (Napa County GIS, Ridgelines Layer); more prominent topographic features are associated with Atlas Peak to the northwest (approximate elevation 2,663) and located less than 1 mile to the northwest of the project site. There are no significant rock outcroppings or geologic features on the parcel that would be impacted by the project (site visits conducted by Napa County Staff on May 3, 2019). The project is not visible from a state scenic highway: there are no scenic highways in the area (CA Department of Transportation website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways). Therefore, the project would have a less than significant impact on a scenic vista, scenic highway, historic buildings or rock outcrops.

c. The proposed project would result in the removal of existing vegetation within the proposed development area and the development of vineyard. The proposed project is consistent with the Napa County AWOS land use designation and with adjacent land uses, which include other hillside vineyards. Therefore, the proposed project would not substantially degrade the existing visual character or quality of public views of the site or its surroundings, in that it would be consistent with the surrounding character of hillside vineyards and rural residential uses, resulting in a less than significant impact.

d. Earthmoving activities, erosion control plan installation and maintenance, and vineyard installation would not involve the introduction of nighttime lighting. Subsequent vineyard operation and maintenance may require seasonal operation of equipment using small downward directional lights during harvest and the application of sulfur for mildew control, and pesticides/herbicides for pest and weed control. The proposed project would include nighttime harvest (from 12:00 am to 6:00 am) occurring approximately 15 days per year, and sulfur and pesticides/herbicides applications (from 12:00 am to 6:00 am) occurring approximately 6-7 days per year. While some nighttime activities may occur for limited periods, the project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses; therefore, resulting in a less than significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Discussion

a. The Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the following farmlands within the project parcel: approximately 2.6 acres of Farmland of Statewide Importance, 1 acre of Unique Farmland, 15.6 acres of Farmland of Local Importance, and approximately 96.55 acres of Grazing Land. Vineyard development would be consistent with all of these designations and would not result in an impact to farmland within Napa County.

b. The project site has a General Plan land use designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment and operation of vineyard totaling approximately 20.2-acres is consistent with property's land use and zoning designations. The project parcel is under Williamson Act Type F Agricultural Contract #30024, recorded February 24, 1981, Volume 1193, Pages 807 through 822, subsequently amended and recorded on October 6, 1989, Volume 1689, Pages 61 through 65. The proposed vineyard development (i.e. agricuture) is allowed under this contract; therefore, the project would not conflict with its land use designation or a Williamson Act contract, resulting in no impact.

c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." The project site does not contain forest land or coniferous forest (Exhibit B-1, and Napa County GIS Vegetation layer). The project site is not zoned forest land as defined in Public Resource Code Section 12220(g), timberland as defined in Public Resource Code Section 4526, or a Timberland Production Zone (TPZ) as defined in Government Code Section 51104(g). 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 is anticipated to have a less than significant impact on agricultural or forest resources of Napa County.

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

Discussion

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 (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These guidelines were updated in May 2017 to address the California Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Ca 4th 369. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA, and were posted on the BAAQMD website and included in the BAAQMD updated CEQA Guidelines (May 2012). The thresholds are advisory and may be followed by local agencies at their own discretion.

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

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

BAAQMD published a new version of the CEQA Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 CEQA Guidelines update does not address outdated references, links, analytical methodologies, or other technical information that may be in the Guidelines or Thresholds Justification Report. BAAQMD is currently working to revise any outdated information in the Guidelines as part of its update to the CEQA Guidelines and thresholds of significance.

a-b. The project site is located within the northern end of Napa Valley, which forms one of the climatologically distinct sub regions (Napa County Sub region) within the San Francisco Bay Area Air Basin. The topographical and meteorological features of the Napa Valley create a relatively high 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, consist mainly of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction related equipment and vehicular haul and worker trips. In the long term, potential air quality impacts are most likely to 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 (including grape haul trucks) and equipment necessary for ongoing vineyard maintenance. Refer to Section XVI, Transportation/Traffic, for the anticipated number of construction-related and operational-related trips.

The impacts associated with implementation of the 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 particulate matter 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 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 Guidelines described above. These Guidelines outline substantial evidence supporting a variety of thresholds of significance.

The thresholds of significance identified in **Table 3** are consistent with the BAAQMD 2017 CEQA Air Quality 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 was completed of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County: Suscol Mountain Vineyards[4] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[5] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[6] for an approximately 400-acre vineyard development.[7]

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 – 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.

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

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

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

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

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.

Because this project's proposed approximate 20.2-acre vineyard 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 that 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 8-1 of the CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project, should the proposed project be approved.

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[8] or the PERP website[9].

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 it would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

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

Land uses adjacent to and in the vicinity of the subject parcel include agricultural (vineyards), wineries, rural residential and undeveloped land. The nearest offsite residences are approximately 180 feet to the south of the project site (Block A), 1,000 feet to the northwest (Block B), approximately 260 feet west and 200 feet north of Block C2. The closest residential community that may contain schools, hospitals and/or convalescent homes, is the Town of Yountville, and the nearest school (Yountville Elementary) is located over 6 miles west to the Town of Yountville and over 6 miles to the southwest to the City of Napa (Napa County GIS: Parcels and Schools Layer).

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

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

During installation of the ECP, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur more than 2 miles from the closest school and more than 1 mile from the closest residential neighborhood, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, 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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

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

- Northwest Biosurvey, September 6, 2018, Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. (**Exhibit B-1**).
- Northwest Biosurvey, June 11, 2019, Response to Comments (Biology) (**Exhibit B-2**).
- Northwest Biosurvey, June 26, 2020, Updated Tree Loss Estimates, Atlas View II Vineyard Project (Biology) (**Exhibit B-3**)
- Northwest Biosurvey, July 23, 2021, Site Inspection of Atlas View II Property **(Exhibit B-4)**
- 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

Northwest Biosurvey conducted an assessment of biological resources on the subject parcel on May 23, June 1, and August 13, 2018, in an approximate 25-acre survey area. The survey was completed to determine: the location of the project area with regard to the geographic range of sensitive plant and wildlife species; location(s) of known populations of sensitive plant and wildlife species; soils of the project area; presence or absence of special habitat features such as vernal pools and serpentine soils; plant communities existing within the project area; a woodlands assessment; and a delineation of waters of the US. The floristic surveys correspond to blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project area. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines. Plants were identified using *A Manual of California Vegetation* (Sawyer et al. 2009) and Jepson Flora Project (Jepson eFlora, 2018) to the taxonomic level necessary to determine whether they were rare. The wildlife surveys were conducted concurrently with the rare plant surveys. The wetland delineation was conducted as prescribed in the *Corps of Engineers Wetlands Delineation Manual* (January 1987) and the *Arid West 2008 Supplement*. A list of special-status plant and animal species that have the potential to occur within the vicinity of

the project area was compiled based on data in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2018), and the CNDDB (CDFW, 2018).

A Tree Count Estimate (Northwest Biosurvey, June 2020 – **Exhibit B-3**) was prepared based on the revisions to the project as currently proposed, including the proposed clearing areas for the water storage tank and the staging area where chemical storage and washing will occur, which were not included in the Biologist's analysis. The methodology used the vegetation class density layer along with a visual count of trees within the grassland areas of the proposed vineyard blocks. This analysis resulted in a tree removal estimate that is lower than the biologist's estimate (62 trees vs. 254 trees). The discrepancy is due, in part, to the differing methodologies (Napa County GIS used density class field analysis as well as visual tree count from aerials, while the Biologist used a study plot as a statistical sample that was applied over a larger project area), in addition to the afore-mentioned areas for infrastructure that were not included in the Biologist's analysis. The environmental analysis herein is based on the more conservative estimate of 254 trees for removal, and the more accurate vegetation removal acreage from the GIS analysis in **Figure 4** (2.24 acres of oak woodland and 17.7 acres of grassland).

Additionally, because of the date of the original Biological Resource Assessment, and that the Hennessey fire affected the project site in 2020, Northwest Biosurvey conducted a subsequent site inspection on July 21, 2021, to assess current site conditions (**Exhibit B-4**). The Project Biologist has indicated the 2018 biological resource assessment completed for this property remains a valid depiction of the biological resources on the property with the understanding that the biological communities described in the original report are in the process of reestablishing themselves.

The site inspection found that trees on the property had the highest rate of survival with Oaks species fairing best with overall survival estimated close to 70 percent. The shrub layer was reduced to standing deadwood by the fire; however, these shrubs are stump-sprouting from mature root systems and should fully recover within a few years. The grass layer was removed by the fire, and the property now supports a nearly continuous grass cover, the effects of fire has had a significant effect on the ground cover: most notable a dense invasion of yellow star thistle which now contributes as much as 50-percent of the cover within grasslands. Many native grasses, which are perennial, have not recovered but may persist as surviving in a seed bed, if suitable rainfall and microclimate conditions occur in the future, these populations may recover. With respect to Purple Needlegrass (*Stipa pulchra* - as further described below), the site of this mapped population was visited during the July 21, 2021, site visit. No purple needle grass was found at the site which is now dominated by slender wild oat, barbed goat grass, perennial rye, and yellow star thistle. This population may recover with suitable rainfall and microclimate conditions; however, the invasion of yellow star thistle may be an added obstacle to its recovery.

Given the project site history and that the project biologist considers the 2018 biological resource assessment completed for the property continues to remain a valid depiction of the biological resources on the property the follow assessment is based on the site conditions as presented in the 2018 Biological Resource Assessment. The County has determined basing the disclosures and analysis on the 2018 conditions would provide the most conservative assessment of the proposed project's potential impacts on the environment. This would also be consistent with NCC Section 8.80.130 (Conservation regulations for fire-damaged properties), where the 2018 conditions are used as the baseline for Vegetation Retention Requirements pursuant to NCCSection 18.108.020(B).

The parcel consists of the following biological communities (or Land Cover Types) with respective acreages shown in **Table 4:** coast live oak woodland, mixed oak woodland, blue oak woodland, wild oat grassland, purple needle grass grassland and Baltic rush marsh.

Table 4 – Biological Communities/Land Cover Types on the Project Parcel

Biological Communities/Land Cover Type	Pre-Project Conditions (acres)
Coast Live Oak Woodland	17.35
Mixed Oak Woodland	67.87
Blue Oak Woodland	4.06
Wild Oat Grassland	29.28
Purple Needle-grass Grassland	0.13
Baltic Rush Marsh	0.06

Source: Northwest Biosurvey, 2018

a. Special-Status Plants: Based upon a review of the resources databases listed in **Exhibit B-1**, 31 special-status plant species have been documented to have the potential to be in the vicinity of the project parcel, of a total of 82 native and introduced identified plant taxa. Two special-status plants were observed on the property during the surveys conducted by Northwest Biosurvey: Jepson's navarretia (*Navarretia jepsonii*) and purple needle-grass (*Stipa pulchra*).

   Jepson's navarretia (*Navarretia jepsonii*) is a CNPS Rank 4.3 taxon, is endemic to California and is found in grassland, chaparral and oak woodland, often on serpentine soils. CNPS List 4 species are considered by CNPS to be "plants of limited distribution": the List 4 ranking is essentially a CNPS watch list of plants about which not enough is known to qualify them as "rare, threatened, or endangered" and consequently placed in Rare Plant Rank 1B. The 4.3 classification is described as not very rare in California, and defined by the California

Native Plant Society as "not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threat)." This species was reported to be widely distributed as scattered individuals within the wild oat grassland community of the project parcel; the project proposes to remove 17.7 acres of wild oat grassland. Removal of these individual plant species from within the larger wild oat grassland is considered a potentially significant direct and cumulative impact due to the plants CNPS listing. Implementation of Mitigation Measure BR-1 would require a survey prior to removal of the existing Jepson's navarretia in the proposed development area, and submittal of a replacement plan for approval by the County, requiring replacement of removed plants at a 2:1 ratio. Therefore, with mitigation incorporated, the proposed project would have a less than significant impact on special-status plants.

While purple needle-grass is not considered sensitive as individual plants, when it occurs in a community, the Napa County Baseline Data Report (2005) and the CDFW identifies purple needle-grass grassland (*Nassella pulchra* Herbaceous Alliance) (PNG Grassland) as a Sensitive Biotic Community and a priority for conservation. Additionally, Biotic Communities of Limited Distribution encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation (Napa County, 2008). Native grassland, including the PNG Grassland as a sub-community, is identified as a Biotic Community of Limited Distribution. Therefore, PNG Grassland is considered to be both a Sensitive Biotic Community and Biotic Community of Limited Distribution in the County. The project parcel contains purple needle-grass distributed as scattered individuals or small sub-mappable patches throughout the grasslands of the parcel, and as the dominant ground cover in a community within the northeastern portion of the central grassland in the vicinity of proposed vineyard blocks G and F2 (**Figure 2 in Exhibit B-1**).

Table 5: this table also shows/lists the acreages of each biological community to be removed and retained within the study area.

Table 5 – Retention of Biological Communities with the Proposed Project[10]

Biological Communities	Total Acres in the Survey Area	Proposed Development Areas	
		Acreage	% Retention
Coast Live Oak Woodland	17.35	0	100
Blue Oak Woodland	4.06	0	100
Mixed Oak Woodland[1]	67.87	2.24	96.8
Wild Oats Grassland	29.28	17.7	39.55
Purple Needle-grass Grassland[2]	0.13	0	100
Seasonal Wetland/Baltic rush marsh[2]	0.06	0	100

[1] Mixed Oak Woodland includes California black oak forest as identified in Figure 4.
[2] Considered sensitive by Napa County.
Sources: Northwest Biosurvey 2018 (**Exhibit B-1)** and Napa County GIS 2020 (**Figure 4**)

Pursuant to Napa County General Plan Policy CON-17[11], 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[12]** encourage/requires

[10] The acreages identified in **Table 5** may differ from acreages identified in the biological information/data (**Exhibits 5A** through **B-5** due to mapping platforms, spatial characters, and rounding. Because approximate plant communities and project acreages have been corroborated through County GIS mapping, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

[11] Policy CON 17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards:

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

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.

Removal of a Sensitive Biotic Community and a Biotic Community of Limited Distribution (PNG Grassland) would be considered a potentially significant impact. While the project proposes full avoidance of the purple needle-grass community with a minimum 50 foot buffer, maintaining the connection of the purple needle-grass community with the up-slope oak woodland, the removal of individual and small patches of Purple needlegrass is considered a potentially significant direct and cumulative impacts to Sensitive Biotic Community and Biotic Communities of Limited Distribution (i.e. PNG Grassland). Implementation of **Mitigation Measure BR-1** would require pre-construction surveys for PNG and replacement of individual special-status species plants (Jepson's navarretia and purple needle-grass) at a 2:1 ratio within the retained grassland onsite. Therefore, with mitigation incorporated, the proposed project would have a less than significant impact on native grasslands, sensitive biotic communities and habitats of limited distribution.

Mitigation Measure BR-1: The owner/applicant shall revise Erosion Control Plan #P19-00171-ECPA prior to approval to include the following measures to minimize impacts to special-status plant species and their habitat, including Jepson's navarretia (*Navarretia jepsonii*) and purple needle-grass (*Stipa pulchra*) and Sensitive Biotic Community and Biotic Communities of Limited Distribution:

a. Prior to commencement of any earthmoving activities or construction under #P19-00171-ECPA, a qualified wildlife biologist shall conduct preconstruction surveys for special-status plants and their habitat known to occur in the area, including Jepson's navarretia (*navarretia jepsonii*) and purple needle-grass (*Stipa pulchra*). The results of the preconstruction survey shall be submitted to the County Conservation Division for review prior to the initiation of Erosion Control Plan #P19-00171-ECPA. The survey shall include number of species found, and recommendations for appropriate transplant or replacement of removed plants at a 2:1 ratio.
b. The owner/applicant shall revise Erosion Control Plan #P19-00171-ECPA to include location and plan for replacing removed Jepson's navarretia (*navarretia jepsonii*) and purple needle-grass (*Stipa pulchra*) at a 2:1 ratio. The replanting plan shall be prepared by a qualified biologist or restoration ecologist and include the following: i) a site plan showing the areas of revegetation sufficient to ensure success of the community, ii) a plant pallet composed of Jepson's Navarretia (*Navarretia jepsonii*) and Purple Needle Grassland (*Nassella pulchra)* at a 2:1 replacement ratio, and can include other compatible native plant species common to the area, that 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, and vi) performance standards with a minimum success rate of 70% to ensure the success of Purple Needlegrass Grassland replacement and re-vegetation efforts.

Special-Status Animals: A total of 68 special-status wildlife species have been documented in Napa County, in addition to a variety of native bird species with protections under the Migratory Bird Treaty Act (MBTA). Nine of the special-status species have a potential to occur within the project parcel: pallid bat (*Antrozous pallidus*); western red bat (*Lasiurus blossevilli);* foothill yellow-legged frog (*Rana boylii)*; California red-legged frog (*Rana draytonii)*; and western pond turtle (*Emys marmorata),* white-tailed kite (*Elanus leucurus)*; Lawrence's goldfinch (*Carduelis lawrencei*); Lewis' woodpecker (*Melanerpes lewis)*; and loggerhead shrike (*Lanius ludovicianus*).

With respect to the special-status frog and turtle species with the potential to occur in the vicinity of the project, the parcel does not provide suitable habitat due to limited duration of ephemeral stream flows and lack of surface water. Therefore, no impacts on these special-status species would result from project implementation.

With respect to bat species, on May 23, June 1 and August 14, 2018, Northwest Biosurvey conducted a survey that assessed mature trees within the proposed vineyard blocks for their potential as roosting sites for sensitive bat species. These potential bat habitat sites included hollow trees, trees with open cavities, and trees with exfoliating bark. A number of trees within the blocks may contain suitable habitat for bats because of open cavities and hollows, including trees damaged by the 2017 fire.

The western red bat is a typically solitary bat. In California, this species is known to roost in the foliage of cottonwood trees and willows, but may be found in other habitats such as chaparral and mixed conifer, fields, and occasionally urban areas; they appear to be associated with riparian habitats. In winter, these bats may roost in leaf litter. The species prefers edge habitats with trees for roosting near open areas for foraging. The project site contains poor habitat for this species.

Pallid bat is broadly distributed throughout much of western North America. 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, exfoliating bark, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. Optimal habitat for these bats consist of open forest and woodlands with sources of water over which to feed. Prey items include insects, reptiles and rodents, and foraging occurs over open country. These bats have a home range of 1 to 3 miles, and maternity colonies tend to be in the more protected,

isolated locations and may consist of more than 100 individuals. This species is extremely sensitive to human disturbance of roosting sites. Suitable habitat is present for this species within numerous burned and/or decadent trees within the vineyard blocks.

The project as proposed includes protection measures for bats (or 'Environmental Commitments') as part of the project. To ensure the implementation of the proposed environmental commitments are in accordance with California Department of Fish and Wildlife (CDFW) and County protocol and practice, the following conditions of approval will be implemented, should the project be approved. Therefore, the project as proposed would result in less than significant impacts to bat species.

Environmental Commitment - Bat protection condition: A Qualified Biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a passive habitat assessment in order to identify suitable bat habitat trees with in the project area(s), within 6 months in advance of the planned tree removal. If the habitat assessment determines that trees proposed for removal contain suitable bat habitat, the following shall apply to potential bat habitat trees:

i. Tree trimming and/or tree removal should only be conducted during seasonal periods of bat activity (August 31 through October 15, when young would be self-sufficiently volant and prior to hibernation, and March 1 to April 15 to avoid hibernating bats and prior to formation of maternity colonies), under supervision of a qualified biologist. Note that these windows may shift with atypical temperatures or rainfall. Trees should be trimmed and/or removed in a two-phased removal system conducted over two consecutive days. The first day (in the afternoon), limbs and branches would be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures would be avoided, and only branches or limbs without those features would be removed. On the second day, the entire tree would be removed.
ii. For removal of bat habitat trees outside the seasonal activities identified above (between October 16 and February 28/29 of the following year or between April 16 and August 30), a qualified biologist shall conduct pre-construction survey within 14 days of project initiation and/or removal to determine absence/presence of special-status bat species. Survey methods, timing, duration, and species shall be provided for review and approval by Napa County prior to conducting pre-construction surveys. A copy of the survey shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present, removal can proceed. If bats are found to be present, a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Conservation Division and CDFW. The removal or exclusion plan shall be implemented upon approval of the plan by the County Conservation Division.

With respect to special-status bird and raptor species, the grassland and oak woodland habitats on the project parcel provide potential foraging, roosting and nesting habitat for all four species.

White-tailed kites are found in open to semi-open terrain throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. These raptors hunt over open country and prefer large, deciduous trees surrounded by expanses of grassland, meadows, farmland and/or wetlands for nesting and roosting sites. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The grasslands in the north part of the parcels with mature oak trees scattered within it, may provide hunting and nesting habitat for white-tailed kite.

Lawrence's gold finches are passerine birds that prefer to nest in dense foliage of oaks in dry open woodland near brushy and grassy areas of chaparral. Proximity to water is important. Their diet consists primarily of seeds but includes some insects. They frequently nest near other pairs during a breeding season that extends from late March through July, with birds migrating south in August. The project parcel contains nesting habitat for this bird species in oak woodland habitat.

Lewis' woodpeckers excavate nest cavities in dead trees and dead limbs of live trees in open woodlands. They hunt insects and eat fruits and berries throughout the spring and summer and shift their diet to cached acorns and emerging insects in the fall and winter. Breeding occurs between early May and July. The open oak woodland habitat within the grassland community provides potential habitat for this species.

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

The project proposes to convert 2.24 acres of oak woodland (3.2% of the total community) and 17.70 acres of grasslands (60.45% of the total community). Development of the vineyard blocks has a potential to result in the incidental take of individuals of these species if conducted during the breeding season (February 1 through August 31). Potential direct and indirect impacts to white-tailed kite, Lawrence's gold finch, Lewis' woodpecker, and Loggerhead shrikes would be significant. However, project design, as well as the standard conditions of approval to avoid tree cutting or wetland disturbance along the edge of the project would avoid impacts to this sensitive species.

Migratory birds have the potential to nest within the trees throughout the development area. Potential indirect impacts resulting from temporary and intermittent increases in noise levels may cause nest and roost abandonment and death of young or loss of reproductive potential at active nests/roosts located near project activities. Potential direct and impacts to migratory birds would be significant. However, standard conditions of approval to avoid tree cutting along the edge of the project would avoid impacts to nesting birds.

To reduce potentially significant impacts to special-status bird and bat species to a less than significant level, the owner/applicant has included protection measures ('Environmental Commitments) as part of the project (**Exhibit A**) so that special-status bird species would not be adversely affected during project implementation. To ensure the implementation of the proposed environmental commitments are consistent with, and in accordance with, California Department of Fish and Wildlife (CDFW) and County protocol and practice the following conditions of approval will be implemented, should the project be approved. The project as proposed, including implementation of proposed environmental commitments and conditions of approval, will result in less than significant impacts to special-status bird species.

Environmental Commitment, Bird protection condition: The Permittee shall include in #19-00171-ECPA the following measures to minimize impacts associated with the loss and disturbance of nesting birds and raptors consistent with and pursuant to California Department of Fish and Wildlife (CDFW) Code Sections 3503 and 3503.5, the following nesting birds preconstruction survey(s) shall be conducted prior to the commencement of vineyard development and implementation activities:

i. For earth-disturbing activities occurring between February 1 and August 31 (which coincides with bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with potential to occur at the project site) shall conduct preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas. The preconstruction survey shall be conducted no earlier than seven (7) days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than seven (7) days from the survey date, surveys should be repeated. A copy of the survey will be provided to the Conservation Division and CDFW prior to commencement of work.
ii. 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.
iii. In the event that nesting birds are found, the permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with Napa County PBES and the USFWS and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with PBES and the USFWS and/or CDFW.
iv. 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.
v. Alternative methods aimed at flushing out nesting birds prior to pre-construction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

The project as proposed, with implementation of Environmental Commitments, conditions of approval would reduce potential impacts to special-status species to a less that significant level.

b-c. While there are no identified riparian habitats within the parcel, the project parcel area contains approximately 0.62 acres of seasonal wetlands along an unnamed blue line stream that drains southeast through steep terrain to the Capell Valley (Napa County GIS Environmental Sensitivity Layer: Wetlands (NWI) "Freshwater Forested/Shrub Wetland"). The Biological Resources report included a preliminary wetland delineation to determine the extent of possible waters of the U.S. on the project. The delineation field work was conducted by a qualified professional on June 4, 2018. All possible waters of the U.S. occurring within the project area consist of wetlands and "other waters" pursuant to Corps of Engineers definitions. These waters throughout the property include 14 stream channels ranging in width from 1.0 to 3.5 feet and resulting in a total of 0.5582 acre in size, and a small wetland complex of approximately 0.06 acre in the

northwestern part of the property, for a total of 0.62 acres (see Figure 3 of **Exhibit B-1**). The seasonal wetland area was identified as a Baltic rush marsh, which occurs within a seep on the northwestern edge of the property. It is dominated by Baltic rush (Juncus balticus) but includes a subdominant mix of common velvet grass (Holcus lanatus) and tall flat sedge (Cyperus eragrostis), all three of which are wetland indicator species, as noted in **Exhibit B-1**. The small seep spring community of Baltic rush provides an extended source of surface waters for local wildlife into the early summer months. Sources of surface water during the late summer and fall are typically available down-slope in valley terrain or in remaining pools within ephemeral streams or in seep springs similar to the one on the project parcel. These sources may be far between and available only to larger wildlife whose daily movements extend over greater distances.

The proposed project has been designed to include stream setbacks from the definitional streams on the subject property, in conformance with County Code Section 18.108.025 (General provisions – Intermittent/perennial streams). The proposed project has also been designed to include 50-foot minimum setbacks from the Baltic Rush Marsh, consistent with NCC Section 18.108.026 (Wetlands). Therefore, the project has been designed to provide setbacks from aquatic features (i.e. ephemeral streams and wetlands) consistent with code requirements. Furthermore, project approval, if granted, would be subject to the following standard conditions to prevent the potential encroachment into stream and wetland setbacks required pursuant to Section 18.108.025 and Section 18.108.026, further protecting these aquatic resources during project implementation and operation resulting in a less than significant impact.

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

- The location of creek setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation and until wildlife exclusion fencing is installed as shown on the plans.
- All construction and related traffic will remain on the inside (vineyard block side) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remains undisturbed.
- 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 #P19-00171-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director

Wetland Protection – Condition of Approval: The small wetland east of Vineyard Block D shall be flagged in the field by a qualified biologist and protective construction fencing shall be installed along its boundary for County inspection and approval prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the pond bottom or wetland: all work shall be conducted from the top of the pond embankment. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete.

d The project parcel is currently fenced with cattle fencing that is generally located around the property's perimeter, with a height of approximately 4' with 8 strands of barbed wire. The project proposes new wildlife exclusion fencing around the perimeter of the vineyard blocks with gates and/or cattle guards provided at access points. The wildlife exclusion fencing would be 6' tall wire mesh topped with two strands of barbed wire.

The eastern slope of Atlas Peak supports a broad belt of oak woodlands, which provides a broad expanse of contiguous woodland habitat supporting continuous and interconnected wildlife populations. The project area does not occur within any of the wildlife corridors identified as a CalWild Linkage shown in Map 4-2 of the Napa County BDR; however, these linkage maps pertain to large-scale regional movement of wildlife (typically within valleys). Primary wildlife corridors in the region would emphasize valley terrain such as the Foss Valley to the west and the Capell Valley and contiguous valley terrain along Capell Creek to the east. For local diurnal movement (daily movement between sources of food, cover, and water), wildlife generally follow stream courses when moving up and down slopes and use adjacent habitats (often preferring woodlands) for cover, browse, or hunting. These are mapped as 150-foot radius zones[13] along the ephemeral stream courses, and would not be directly impacted by the proposed vineyard development. While the proposed vineyard blocks would result in portions of the site having reduced potential for on-site wildlife movement, the preservation/avoidance of wetland and streams within the parcel, as well as the condition of the surrounding lands, would continue to allow for movement through the vicinity. The proposed wildlife exclusion fencing would not interfere substantially with wildlife movement and impacts are expected to be less than significant.

[13] The actual width of usable corridors would continually change based on the density of vegetation and steepness of adjacent slopes.

The Napa County General Plan Conservation Element Policy CON-18 encourages the reduction of impacts to habitat conservation and connectivity through preservation of habitat and connectivity of adequate size, quality, and configuration, and by requiring that new vineyard development be designed to minimize the reduction of wildlife movement to the maximum extent feasible.

The project as proposed would avoid and preserve the definitional streams and wetland with setbacks and with wildlife exclusion fencing limited to vineyard block perimeters will provide for movement and shelter habitat for wildlife species. The avoidance of these habitats would maintain movement, shelter and foraging habitat for a variety of common wildlife species and include connectivity to adjacent properties. Maintaining this connectivity should provide for continued cross-pollination and gene flow, as well as local wildlife movement. Furthermore, the adjacent properties are composed of the same habitats that support a similar suite of plants, presumably including those special-status plants documented on the property. Retention of the majority of the documented special-status plants in connected habitat blocks would provide the opportunity for these species to maintain viable populations both on the property, and more broadly, in the region. The proposed project would be consistent with General Plan Policy CON-18, and therefore, would result in less than significant impacts on wildlife corridors.

In order to ensure that deer fencing (or wildlife exclusion fencing) is maintained in a manner that does not negatively affect wildlife movement, the following condition of approval would be incorporated should the project be approved.

> **Fencing – Condition of Approval:** The owner/permittee shall revise Erosion Control Plan #P19-00171-ECPA prior to approval to include a Vineyard Fencing Plan. The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P19-00171-ECPA, and include the following components:
>
> - Replacement fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
> - Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
> - Any new wildlife exclusion fencing installed in association with #P19-00171-ECPA shall be prohibited, and would require County review and approval to ensure any new fencing would not result in potential impacts to wildlife movement.

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

e. Based on the Biological Resources Assessment (Northwest Biosurvey, 2018 – **Exhibit B-1**), the parcel contains three native woodland communities, including Mixed Oak Woodland (67.87 acres), Coast Live Oak Woodland (17.35 acres), and Blue Oak Woodland (4.06 acres), as well as seasonal wetland (0.62 acres; refer to c., below) and PNG Grassland (0.13 acres), all of which are considered sensitive habitats. As previously noted, woodlands on the property were subject to the Atlas Fire but most were either only lightly affected or recovered by the spring of 2018. The biologist identified that, while the fire removed most young seedlings, the mature, fire-adapted woodland is healthy and showing good regeneration.

The Coast Live Oak Woodland occurs east of the project site (Vineyard Block G) on the eastern portion of the parcel. The Blue Oak Woodland occurs in the north central part of the parcel between vineyard blocks D and G, associated with several County definitional streams. The proposed project avoids the Coast Live and Blue Oak Woodland communities, and therefore, no impact would occur on these sensitive communities.

The project biologist conducted a woodland analysis on the Mixed Oak Woodland community to provide an estimate of the species and number of trees that would be impacted by vineyard development in each of the proposed vineyard blocks. One study plot was selected within this woodland type based on how well represented the community it was intended to sample. Trees within this study plot were mapped with a GPS waypoint and a record was made of its species, diameter at breast height (DBH), and any unique characteristics (e.g., dead, hollow, acorn storage tree, etc.). The data collected was then statistically analyzed to provide information on woodland species composition, average DBH, average canopy size within the woodland, average distance between trunks, and percent of canopy closures.

The Mixed Oak Woodland within the project area is a mature, old-growth hardwood forest with trees to 48" DBH. California black oak (*Quercus kelloggii*) is generally dominant but depending on location and degree of shading, other oak and hardwood species may become co-dominant, including: coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), Oregon white oak (*Quercus garryanna var. garryanna*), California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), interior live oak (*Quercus wislizeni*), and big-leaf maple (*Acer macrophyllum*). The community edges may include blue oak (*Quercus douglasii*) and ghost pine (*Pinus sabiniana*).

Based on the woodland assessment described above, the proposed project would result in removal of an estimated 254 trees within the mixed oak woodland community. The tree removal estimates provided by the project biologist (Northwest Biosurvey – **Exhibits B-1** and **B-3**) are conservative, in that it includes all trees with a significant amount of canopy within a proposed development area regardless of

whether the trunk occurs within the development area. The project biologist has accounted for the potential that grading within half the distance from the dripline to the trunk of an oak tree results in a 50-percent survival rate. **Table 6** includes a list of estimated number per species of trees proposed to be removed based on the Project Biologist's analysis and assumptions. As previously indicated Per Napa County GIS Vegetation layer analysis prepared on August 6, 2020 (**Figure 4**), the project would directly remove an estimate 62 trees versus the 254 trees estimated by the Project Biologist.

Table 6: Estimated Number & Species of Trees Impacted within Proposed Vineyard Areas

Block #	Number and Species of Trees							Total # Trees per Block
	Black Oak	Coast Live Oak	Interior Live Oak	California Live Oak	California Bay	Pacific Madrone	Big Leaf Maple	
VB A-B*	11	2	1	3	8	3	28	56
VB C	20	3	3	6	14	6	51	103
VB D	2	2	2	4	11	4	38	63
VB F-G	9	1	1	3	6	3	9	32
Total	**42**	**8**	**7**	**16**	**39**	**16**	**126**	**254**

***** Contiguous vineyard blocks are combined.
Sources: Northwest Biosurvey, Response to County Request for Updated Tree Loss Estimates, June 26, 2020 (**Exhibit B-3**)

In addition to CON-17 (above), the Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland habitat be maintained and improved to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

a) Preserve, to the extent feasible, oak trees and other significant vegetation that occurs near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat.
b) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species of limited distribution shall be avoided to the maximum extent feasible.

The project parcel contains 67.87 acres mixed oak woodland; therefore, in order to ensure that a 2:1 ratio is maintained of 2 acres of oak woodland preserved for each 1 acreimpacted, no more than 22.6 acres may be converted to vineyard. The proposed project will remove approximately 2.24 acres of oak woodland, which is less than the allowable 22.6 acres. Therefore, impacts are considered to be less than significant with respect to the 2:1 preservation ratio. Regarding individual tree removal, given the number of trees to remain with the parcel's ±89-acres of oak woodlands (i.e. coast, blue, and mixed) the direct and indirect removal of up to 254 trees as a result of the project is considered to be less than significant.

Considering the size of the project, and amount of oak woodland and associated habitat to remain within the subject property as part of the project, potential direct impacts to oak woodlands are anticipated to be less than significant. However, there is the potential for significant indirect and cumulative impacts to oak woodlands and associated habitat through future disturbance and/or removal, in that project land preparation activities (i.e. land ripping) would negatively affect the root structure of trees along the boundaries of the development area. The University of California, Division of Agricultural and Natural Resources (UC-ANR), and the County's *Voluntary Oak Woodland Management Plan* (Napa County, 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[14]. Additionally, there is the potential for significant indirect and cumulative impacts to oak woodlands and associated habitat through future disturbance and/or removal, in that future loss could result in the preservation of on-site oak woodland below the 2:1 ratio provided for under General Plan Policy CON-24. Therefore **Mitigation Measure BR-2** will be implemented to eliminate grading or ripping in avenues and turnaround areas within the dripline of adjacent trees, and to permanently preserve 4.48-acres oak woodland, thereby reducing potential indirect impacts to oak woodland to a less than significant level.

Mitigation Measure BR-2: The owner/Permittee shall revise #P19-00171-ECPA prior to County approval to implement the following measures to reduce potential cumulative and indirect impacts to oak woodland as a result of the project:

a. A minimum of 4.48 acres of oak woodland designated for preservation shall be identified as such in a deed restriction or conservation easement held by an organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including, but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The applicant shall record the deed restriction or conservation easement prior to earthmoving or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the oak woodland being impacted as a result of the

[14] The University of California – Division of Agricultural and Natural Resources, Publication 21577, "Vineyards in an Oak Landscape", 1998.

proposed project, as follows: areas to be preserved shall take into account the type of oak woodland being removed, and species diversity and oak species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of oak woodlands within the project property; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 30%). The area to be preserved shall be determined by a qualified biologist with knowledge of oak woodlands and shall obtain final approval from Napa County.

b. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the project site (typically within approximately 50-feet of the project site). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
c. Where vineyard avenues and turnaround areas encroach into driplines, land preparation (i.e. grading and land ripping) shall be limited to planted areas of the vineyard, and no grading or land ripping shall occur within driplines to facilitate avenue construction: vineyard avenues may be disked to establish the specified vineyard cover crop. Prior to the commencement of any vegetation removal and earthmoving activities, the limits of land ripping shall be demarcated in the field, the precise locations of said demarcations shall be inspected and approved by the Planning Division: no grading shall occur within driplines to facilitate avenue construction.
d. The Owner/Permittee shall refrain from severely trimming the trees and vegetation to be retained adjacent to the vineyard conversion area.
e. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P19-00171-ECPA shall be replaced on-site with fifteen-gallon 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.

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

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

Discussion

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

The Tom Origer & Associates, February 19, 2019, Cultural Resources Study of Approximately 23 Acres of the Property at 4300 Atlas Peak Road (incorporated herein by reference), in addition to the Napa County GIS Archaeological sensitive areas and Archaeological sites layers were utilized in this analysis.

a-b. The Archaeological Survey Report conducted for the project identified early to mid-20th century items within the project area; however, as these items are widely distributed, it was determined not to constitute an historic or archaeological site. Additionally, the potential for buried sites was deemed low to moderate; however, since proposed development consists of vineyard development and associated infrastructure, the study determined that it is unlikely that such deposits would be encountered. There are known cultural resources located

on adjacent parcels immediately to the east and west of the project parcel. Because the proposed project would avoid historical or archaeological resources, no impacts are anticipated.

Furthermore, project approval, if granted, would be subject to the standard conditions identified below and project specific condition identified in **Section XVIII (Tribal Cultural Resources)** that would further protect and avoid impacts to cultural resources, including any that may be discovered accidently.

c. The Archaeological Survey Report did not identify potential for any human remains in the proposed development areas, and does not anticipate the discovery of human remains due to 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 historical and archaeological resources, or human remains during construction, grading, or other earth moving activities:

- In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable solids, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching or other onsite excavation(s), earth work within 100-feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists (RPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.
- If human remains are encountered the Napa County Coroner shall be informed to determine if an investigation of the cause of death is required and/or if the remains are of Native American origin. Pursuant to Public Resources Code Section 5097.98, if such remains are of Native American origin the nearest tribal relatives as determined by the State Native American Heritage Commission shall be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
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 project to result in a substantial increase in energy demand and wasteful use of energy during project construction, operation and maintenance. The impact analysis is informed by Appendix G of the CEQA Guidelines. The potential impacts are analyzed based on an evaluation of whether construction and operation energy use estimates for the proposed project would be considered excessive, wasteful, or inefficient.

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

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

b. The transportation sector is a major end-user of energy in California, accounting for approximately 39 percent of total statewide energy consumption in 2014 (U.S. Energy Information Administration 2016). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million

vehicles consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in Napa County in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 - https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan).

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

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

Discussion

The Gilpin Geosciences, Inc, August 30, 2019, Engineering Geological and Geotechnical Evaluation for Atlas View Vineyards (**Exhibit E**), and the Napa Valley Vineyard Engineering, Inc January 23, 2019 Atlas View II Vineyard Soil Loss Analysis (September 13, 2019, **Exhibit F** - incorporated herein by reference), in addition to the Napa County GIS Geology sensitivity layers were utilized in this analysis.

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

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) No potentially active faults have been mapped in the project site and the project area is not located on an active fault and is not within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The nearest active fault to the site is the Hunting Creek-Berryessa Fault, located approximately 3 miles northeast of the site (Gilpin, 2019). Other known faults to the project site are located ±4.7 miles to the southwest, ±5.7 miles to the southeast, ±6.7 miles to the west/southwest and ±8.8 miles to the southeast (Napa County GIS: Faults and Earthquake Layers).

   ii) While 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 area is in an area with identified to have a very low liquefaction potential (Napa County GIS, Liquefaction Layer). Therefore, this impact would be less than significant.

   iv) There are two evident ancient landslide masses crossing the site. Vineyard Blocks A and B lie on a prominent bench formed by the uppermost part of the old landslide deposits. Vineyard Blocks C and E are proposed to be developed on localized topographic benches formed on the old landslide surface. Vineyard Blocks D and F are proposed to be developed on the gently east-sloping topographic ridgelines on the old landslide deposit. There are two active debris landslides immediately to the west/southwest of Block F2 and southwest of Block G (Gilpin 2019). The project as proposed is designed to avoid these active debris landslides with a 50' buffer. Additionally, the proposed vineyard development would reduce the long-term erosion of the site slopes by controlling runoff and infiltration from the various vineyard blocks and by surface water controls, such as diversion ditches, water bars and attenuation basins. 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.

b. Soils of the project area, as classified in the USDA Soil Conservation Service's Napa County Soil Survey (USDA, Soil Survey of Napa County, 1978) consist of the following: Aiken Loam on 2 to 15 percent slopes (Soil Series #100 and #102) and Forward gravelly loam on 9 to 75 percent slopes (Soil Series #139 and #140) (NVVE 2019, **Exhibit F**).

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

   Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through 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 Napa Valley Vineyard Engineering (**Exhibit F**), the proposed conversion of approximately 20.2 gross acres of woodland and grassland to vineyard is anticipated to reduce soil loss, or surface erosion, within the project area as compared to existing conditions (**Table 7**)[15]. Under existing conditions, the annual soil loss is anticipated to average 16.99 tons per acre per year across the entire project site depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 13.6 tons per acre per year, or a reduction of approximately 20% as compared to existing conditions.

[15] On January 8, 2020, the Engineering Division determined the project's modeling technically adequate. The project was revised on July 8, 2020 to reconfigure two blocks and to include a water tank, a concrete pad, and metal container for storage (which were not included on the original plans). The Engineering Division determined that the revised plans do not substantially change the land use as evaluated in the January 8th 2020 memorandum, and the project remains technically adequate with respect to Napa County's Conservation Regulation Chapter 18.108, including Policy CON-48 and Policy CON-50(c) of Napa County's General Plan.

Table 7 – USLE Soil Loss Analysis

Vineyard Block Transect	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
A	2.51	1.73	-0.78	-31%
B	1.66	1.14	-0.52	-31%
C1	3.65	2.97	-0.68	-19%
C2	2.23	1.88	-0.35	-16%
D	3.55	2.49	-1.06	-20%
E/G	1.74	1.74	0	0%
H	1.65	1.65	0	0%
Vineyard Totals	**16.99**	**13.6**	**-3.39**	**-20%**

Source: Napa Valley Vineyard Engineering, September 13, 2019 – Exhibit **F**.

The USLE modeling calculations, above, were based on a previous version of the proposed plan (dated 9/19/19) that proposed 20.2 gross acres (14.6 net acres). The plans were reconfigured to reduce the footprint of proposed Blocks F2 and G to avoid impacts to purple needle-grass (refer to Section IV, Biological Resources), which would result in reduced impacts and is expected to have a positive effect on the project's soil loss and runoff performance. The plans were also revised to include the proposed water tank, a concrete pad, and metal container for chemical storage, creating approximately 0.034 acres of new impervious surfaces. The new hardscapes are negligible in size relative to their respective watersheds, which total approximately 35.35 acres, resulting in negligible anticipated impacts on runoff.

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the project, including soil loss experienced during vineyard and cover crop establishment, consist of water bars, straw mulching, fiber rolls, diversion ditches and drop inlets and other practices as needed.

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

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval: The following conditions shall be incorporated by referenced into Erosion Control Plan #P19-00171-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, rock-filled avenues, rocked crossings, and permanent no-till cover, 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 (#P19-00171-ECPA) shall oversee its implementation throughout the duration of the 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 project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80% within the vineyard and vineyard avenues. The cover crop may be spot spraying within 12" of 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.
- Temporary and permanent erosion control measures and devices shall be free of plastic monofilament netting and should generally be composed of biodegradable or compostable materials and/or utilize biodegradable or compostable materials in their construction so that animals do not become entangled within them.

It is not expected that land preparation activities associated with the 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 (should the proposed project be approved), 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 area, 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. Therefore, development of the project as proposed would result in no impact with respect to a substantial soil erosion or loss of topsoil.

c. As discussed above, the project area is not located in an area prone to ground failure or liquefaction. While there are landslides identified on the project parcel (including two ancient and two active landslides, as discussed above), The project as proposed is designed to avoid the active landslides with a 50' buffer. The proposed project identifies the soil types in the project area and addresses any potential soil instability. Therefore, impacts from landslides, lateral spreading, subsidence, liquefaction or collapse would be less than significant.

d. Soils of the project parcel consist of Aiken Loam (Soil Series #100 and #102), which exhibits a low shrink-swell potential and Forward gravelly loam (Soil Series #139 and #140) which exhibits low to moderate shrink-swell potential (USDA Soil Survey of Napa County, 1978). In addition, no structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be no impacts associated with expansive soils.

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

f. There are no unique geologic features on the project site. Due to the nature of the soils in the project parcel and the nature of the project (which would involve relatively shallow vineyard), the probability of encountering paleontological resources within the project area 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 breas, true, and/or trace fossils are discovered during ground disturbing activities, all work within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

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

Napa County has been working to develop a Climate Action Plan (CAP) for several years. The 2012 Draft CAP (March 2012) recommended using the emissions checklist provided therein, on a trial basis, to determine potential GHG emissions associated with project development and

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

In July 2015, the County recommenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as methods, emission factors, and data sources); ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable state requirements, and iv) result in a functional and legally defensible CAP. As the part of the first phase of development and preparation of the CAP, the County released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating and incorporating the County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018 through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at https://www.countyofnapa.org/589/Planning-Building-Environmental-Services.

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.

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).[16]

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

[16] "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).

be burned, even though some may be chipped/mulched. Refer to **Section XVII (Transportation)** for anticipated number of construction trips and equipment associated with project construction and operations.

In addition to the one-time Construction Emissions, "Operational Emissions" of the vineyard are also quantified and include: i) any reduction in the amount of carbon sequestered by existing vegetation that is removed as part of the project (referred to as Operational Sequestration Emissions below); and ii) ongoing emissions from the energy used to maintain and farm the vineyard, including farm equipment and vehicles (such as tractors, haul trucks, backhoes, pick-up trucks, and ATVs) and worker vehicle trips (referred to as Operational Equipment Emissions below). See **Section XVII (Transportation)** for anticipated number of operational trips. Operational Emissions from the proposed vineyard would be modest when compared to one-time construction emissions (as discussed below), and a quantitative estimate would require many assumptions about what would happen during the next 100 years onsite under "project" and "no project" conditions (e.g., the life expectancy of the proposed vineyard and existing site vegetation, incidences of disease and fire, etc.).

Construction Emissions:

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs, potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.[17] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed ±20.2 gross acres of vineyard development would be approximately 189.88 MT CO_{2e} (20.2 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 20.2-acres of existing vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the Greenhouse Gas Emissions Checklist and associated carbon stock factors developed as part of the 2012 CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the project area, total carbon stocks for the project site are estimated to be approximately 237.8 MT C or approximately 872.5 MT CO_{2e} (**Table 8**).

Table 8 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage[1]	Project Acreage[1]	Carbon Storage/Stock per Acre (MT C/acre)[1]	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Oak Woodland	2.24	95.1	213.0	781.6
Annual Grassland	17.7	1.4	24.8	90.9
Total			237.8	872.5

[1] For estimated GHG emissions associated with this project, acreages of various vegetation types being removed has conservatively been rounded up to the nearest tenth of an acre.

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20-25% while others have suggested 50%.[18] Using 50% as a more conservative estimate, the proposed project could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 788.3 MT CO_{2e} (**Table 9**).

Table 9 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/ Carbon pool[1]	Project Acreage	Carbon Loss/Emission Per Acre (MT C acre)[1]	Total Carbon Loss in Metric Tons	Total Carbon Loss/ Emission MT CO2e
Oak Woodland	2.24	89.6	200.7	736.4
Annual Grassland	17.7	0.8	14.2	51.9
Total			214.9	788.3

[1] For estimated GHG emissions associated with this project, acreages of various vegetation types being removed has conservatively been rounded up to the nearest tenth of an acre.
Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, April 2020.

[17] 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.
[18] Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated that Operational Equipment Emissions associated with the proposed 20.2-acre agricultural development would be approximately 13.5 MT CO_{2e} (20.2 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e. the conversions of woodland and other vegetation types to vineyard) have been calculated based the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that grasslands sequester a negligible quantity of CO_2 acre per year (essentially zero). Because the 2012 Draft CAP does not identify sequestration factors for the grasslands vegetation type, the sequestration factor for Croplands of 0.057 MT C per acre per year has been attributed to the grasslands that are proposed for removal to provide the most conservative GHG emission estimate. Oak woodlands sequester approximately 0.43 MT C per acre per year. 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 1.0 MT C per acre per year or 3.7 MT CO_2e per year [19].

Furthermore, 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 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 978.2 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 17.2 MT CO_{2e} per year (**Table 10**).

Table 10 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of $C0_{2e}$		Annual Ongoing Emissions in Metric Tons of $C0_{2e}$	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	189.88	Vehicles and Equipment	13.5
Vegetation and Soil	788.3	Loss of Sequestration	3.7
Total	978.2	**Total**	17.2

Source: Napa County Conservation Division, April 2020

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 1,883,2 MT CO_{2e} by considering the size of the proposed vineyard in relation to projected vineyard development in the County. The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008) projected 12,500 acres of new vineyard development in the County between 2005 and 2030. The County concluded in the General Plan EIR that emissions from all sources over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Because this determination was based on emissions from all sources, not just agriculture, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts. Pursuant to Section 15183(a) of the California Code of Regulation (CCR), projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.16% 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 project.

[19] 17.7 acres of grassland times 0.06 MT C = 1.06 MT C, 2.24 acres of oak woodland times 0.43 MT C = 1.0 MT C, totaling 2.06 MT C

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 17.2 MT CO_{2e} per year, which is well below the threshold of 1,100 MT CO_{2e} per year that BAAQMD has defined as significant for CEQA purposes when considering land development projects. Therefore, ongoing project emissions, including loss of sequestration, due to the proposed project are considered less than significant.

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

Chemicals for vineyard operation would be stored and mixed in a container located on a concrete pad along the southern boundary of Block C1, which is a least 50 feet from the nearest aquatic source. 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.

There is a seasonal wetland within the project parcel located immediately west of proposed Vineyard Block D that is provided with a 50-foot setback, and ephemeral drainages have been provided with minimum 35 foot setbacks consistent with NCC Section 18.108.02.

The risk of potentially hazardous materials reaching or affecting adjacent wetlands or other aquatic resources is significantly reduced because: i) the project would provide minimum setbacks of 35 feet and 50 from the site's aquatic resources; ii) project staging and storage areas, including agricultural chemical storage and mixing would be located at least 50 feet from aquatic resources and the site's well; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal laws. Project approval, if granted, would also be subject to the following standard conditions that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance.

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

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

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

c. The closest schools are located over 6 miles to the southwest of the project site in the Town of Yountville and the City of Napa (Napa County GIS: Schools layer). There are no schools proposed within one-quarter mile of the project site. Therefore, there would be no impact to existing or proposed schools.

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 airports to the project site is located over 14 miles northwest in Angwin (Parrett Field), and over 15 miles south in Napa (Napa County Airport). 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 parcel on a temporary basis for ECP 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 a high fire severity (CALFIRE 2007 - https://egis.fire.ca.gov/FHSZ/: and Napa County GIS Fire hazard severity zones layer). The risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project area as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and impacts would be less than significant.

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

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

Discussion

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. The County of Napa has not adopted or implemented any mandatory water use restrictions. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

The project site is located in the Capell Creek – Upper Reach Drainage, which drains southeast of the property before it turns north to the Capell Valley and eventually drains to Lake Berryessa, which is part of the Putah Creek watershed. The project area is under the jurisdiction of the Central Valley Regional Water Quality Control Board and the Fourth Edition of the Water Quality Control Plan (Basin Plan) for Sacramento River and San Joaquin River Basins (CVRWQCB, 2007). 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.

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

   The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project area. Agricultural Erosion Control Plan #P19-00171-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and this impact would be less than significant.

b. The County requires all ECPA applicants to complete necessary water analyses in order to document that sufficient water supplies are available for a proposed project. On June 28, 2011, the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, and well pump test protocols, management objectives, and community support. The County completed a countywide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report, 2011) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan, 2013). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (2013).

   In general, recent studies have found that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with a shallow depth to water. Historical trends in the Milliken-Sarco-Tulucay (MST) area, however, have shown increasing depths to groundwater, but recent

stabilization in many locations. Groundwater availability, recharge, storage and yield are not consistent across the County. More is known about the resource where historical data have been collected. Less is known in areas with limited data or unknown geology. In order to fill existing data gaps and to provide a better understanding of groundwater resources in the County, the Napa County Groundwater Monitoring Plan recommended 18 Areas of Interest (AOIs) for additional groundwater level and water quality monitoring. Through GRAC's well owner and public outreach efforts, approximately 40 new wells have been added to the monitoring program within these areas. Groundwater Sustainability Objectives were developed and recommended by GRAC and adopted by the Board. The recommendations included the goal of developing sustainability objectives, provided a definition of sustainability, and explained the shared responsibility for Groundwater Sustainability and the important role of monitoring as a means to achieving groundwater sustainability.

In 2009, Napa County began a comprehensive study of its groundwater resources to meet identified action items in the County's 2008 General Plan update. The study, by Luhdorff and Scalmanini Consulting Engineers (LSCE), emphasized developing a sound understanding of groundwater conditions and implementing an expanded groundwater monitoring and data management program as a foundation for integrated water resources planning and dissemination of water resources information. The 2011 baseline study by LSCE, which included over 600 wells and data going back over 50 years, concluded that "the groundwater levels in Napa County are stable, except for portions of the MST district". Most wells elsewhere within the Napa Valley floor with a sufficient record indicate that groundwater levels are more affected by climatic conditions, are within historical levels, and seem to recover from dry periods during subsequent wet or normal periods.

A Water Demand and Water Availability Analysis (WAA) was prepared to disclose the project's anticipated water use (Napa Valley Vineyard Engineering, March 2019 - **Exhibit D-1**), and to inform the project's groundwater impact assessment if proposed groundwater use could result in a potentially significant impact. The WAA estimates the onsite groundwater recharge, overall availability, and use in order to assess potential impact on groundwater. As disclosed in the Project History Section of this IS/MND, net planted project acreage was reduced from 17.1 net acres to 13.9 net acres of vineyard. To provide a more conservative estimate of the project's potential groundwater use, the estimates provided for the original/larger project proposal will be utilized to assess potential groundwater impacts.

In order to disclose and further inform the assessment, consistent with WAA County Guidance, an addendum to the WAA was submitted (NVVE September 7, 2021 – **Exhibit D-3**), providing anticipated groundwater use during dry years (as further described below under Groundwater Recharge).

Ongoing review and analysis two off-site groundwater wells located on the abutting parcel to the south (APN 032-160-079, 4110 Atlas Peak Road: Lands of Altura Partners LLC.) were identified to be within 500 feet of Project Well #1. Therefore, a Tier 2 Analysis (Well and Spring Interference) was prepared by Richard C. Slade and Associates (July 8, 2021: Results of Theoretical Water Level Drawdown Calculations for Tier 2 Water Availability Analysis, Well Interference Calculations Atlas View II Vineyard – **Exhibit D-2**). See Well Interference below for further discussion.

While the two project wells range from 800 to 1,700 from the blue-line stream located in the central portion of the property, a Tier 3 analysis was not conducted because a significant impact was not identified as further described below.

The project proposes irrigating the vineyard from the three existing onsite groundwater wells as identified in the WAA. While the applicant has identified 'dry framing' as a future vineyard irrigation practice once vines are established, this assessment is based on typical vineyard practices. There are no existing water uses on the project property. The proposed vineyard (approximately 17.1 net planted acres as analyzed in the WAA) is anticipated to utilize approximately 7.62 AF per year of groundwater annually during the typical annual irrigation season from late May to September. During drier years, which is identified to be %53 of annual average rainfall, it is estimated that 8.39 AF/yr would be necessary. As reminder the project as proposed is expected to use less than is analyzed because the WAA and this analysis are based on 17.1 net planted acres rather than 13.9 net planted acres due to subsequent modification and reduction.

Groundwater Recharge (Tier 1 Analysis): Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the parcel that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Using an average annual rainfall of 34" inches per year over the approximate 115.75 acres of the parcel's land area available for recharge and a 10% deep percolate recharge estimate, and based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the Tier I WAA estimates the average annual groundwater recharge of the parcel to be approximately 32.8 AF/year (**Exhibit D-1).** While the average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions, the project WAA also anticipates a potential recharge rate during drier years of ±18.56 AF/yr, where ±53% of the average precipitation occurs (see **Exhibit D-1**).

The project as proposed is estimated to have an annual onsite future groundwater demand of up to 7.62 AF/year and 8.39 AF/yr during dry years, which is well below the estimated average annual recharge volume of 32.8 AF/year, and below the anticipated recharge rate during drier years of 18.56 AF/yr (see **Exhibits D-1** and **D-3**).

Well Interference (Tier II Analysis): Two offsite wells are located on the abutting parcel to the south are within 500 feet of Project Well #1. The closer of the two wells (Well ID# WCR e0083250[20]) lies roughly 255 ft. from Project Well #1 and is the shallower of the two offsite wells. To estimate the magnitude of potential water level interference that might be induced in this offsite well by virtue of the future pumping of Irrigation Well #1 to meet the irrigation demand of the proposed Atlas View II Vineyard Project a Tier 2 Analysis was prepared (**Exhibit D-2**[21]). The potential theoretical water level interference was evaluated at the closer offsite well, because the theoretically-calculated affects estimated for the closer well would be expected to be greater than those expected on the further well.

The analysis calculated an estimated theoretical water level drawdown interference value of 6.5 ft for the nearest offsite well as a result of pumping Irrigation Well #1, based on the assumption in the Tier 1 WAA that Project Well #1 would need to pumped at a rate of 18.4 gpm for 14 hours to meet irrigation demand on an irrigation day. Table F-1 (Default Well Interference Criteria) of the WAA Guidelines (Napa County WAA, 2015) identifies well interference criteria to assist in determining potentially significant affects: for wells with a casing diameter of 6 inches or less, 10 feet or more of drawdown is identified as a potentially significant impact. Because the anticipated draw down is less than the value defined in the "Default Well Interference Criteria" a significant impact is not anticipated.

Considering that: i) anticipated annual water use of the project parcel for proposed use of approximately 7.62 AF/year is below the parcel's anticipated annual groundwater recharge rate of approximately 32.8 AF/year, ii) the anticipated dry year use of 8.39 AF/yr is below the estimated average annual recharge volume of 18.56 AF/yr during dry years; iii) the Tier 2 Analysis indicates that potential well interference would be below the potential to cause significant adverse effects, iv) the anticipated water use and associated analysis in the WAA is based on 17.1 net planted acres rather than 13.9 net planted acres; thereby providing a conservative estimate of use and potential impact, and, v) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and, vi) incorporation of the standard water use condition below to monitor water use as a result of vineyard establishment and ongoing vineyard operations and maintenance (if approved), the proposed project is anticipated to result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

> **Groundwater Management, Wells – Conditions of Approval:** 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 for the project wells (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data shall be provided to the County, 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 project does not propose any alteration to a stream, river, or drainage course. The project proposes the construction of three concrete pads for the water storage tank (41'-9.5" concrete ring) adjacent to Block B and for the metal storage container and chemical mixing site (4-12" square concrete pads, and 6'x4' concrete slab) adjacent to Block C1. The new hardscapes would create approximately 0.034 acres of new impervious surfaces. The new hardscapes are negligible in size relative to their respective watersheds, which total approximately 35.35 acres, resulting in negligible anticipated impacts on runoff.

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include a no-till cover crop with vegetative cover density of 80% (including vineyard avenues and

[20] Associated county records #E09-00513 and #E09-00006.

[21] This analysis is specific to the Well Interference Calculation for Irrigation Well #1, as described in the Napa County WAA Guidelines Document Tier 2 WAA (WAA, 2015).. In the calculations, RCS does not opine on the Tier 1 WAA by NVVE; the data upon which this Tier 2 WAA analysis relies was provided by NVVE. Further, NVVE provided the specific set of pumping rate and well performance details necessary for the calculations; RCS has not independently verified those assumptions, but only used the inputs as requested by NVVE.

turnarounds/turn-spaces), and the annual application of straw mulch cover on all disturbed areas at a rate of 2 tons per acre. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibits A, C** and **E** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include fiber roll sediment barriers, diversion ditches, drop inlets with sediment traps, water bars, rock slope stabilization and two attenuation basins with 75' level water spreaders. Fiber rolls would be installed on contour at various locations around the perimeter of the vineyard blocks and within vineyard avenues to slow and maintain surface/sheet flow. Water bars are spaced according to the USLE to maintain soil losses below the tolerable levels for the soil types found on the site and to ensure (in conjunction with the cover crop and other runoff control features) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the project. The design and location of straw wattles and water bars would have a negligible effect on existing drainage patterns in that they would not alter the existing topographic contours of the site. The rock stabilization is proposed at low points in the vineyard avenues in various locations. Diversion ditches have a greater potential to alter drainage patterns, in that they are designed to capture sheet flow before reaching erosive velocities and divert it to other locations within the project area. The proposed diversion ditch would collect runoff and direct it to a drop inlet and pipe leading to an attenuation basin. While this erosion control measure would have the potential to divert water to other locations within the project area, due their limited use (consisting of two ditches with a length of less than 300 feet), and the fact that they do not divert water into different drainage areas or drainage courses, this feature is not anticipated to substantially alter the overall drainage patterns within the project site or the surrounding area.

The proposed attenuation basins would have a minimum of 3-4' depth, and would direct water into 75' level water spreaders. The erosion control features are spaced according to the USLE to maintain soil losses below the tolerable levels for the soil types found on the site and to ensure (in conjunction with the cover crop and other runoff control features) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the project. The design and location of fiber rolls and water bars would have a negligible effect on existing drainage patterns in that they would not alter the existing topographic contours of the site.

A Hydrologic Analysis for the project was prepared by the Project Engineer (Napa Valley Vineyard Engineering, December 2018, revised September 2019 - **Exhibit G**). The Analysis identifies seven watershed basins within the project area, and utilizes the Natural Resource Conservation Service (NRCS) Technical Release 20 (TR-20) method. The Analysis concluded that the proposed vineyard development, with the construction of basins in Watershed 1b and 3 (Vineyard Blocks D and G, would not increase the peak runoff rate or times of concentration (the time it takes for runoff to flow from the upper most point in each watershed to the watershed's outlet) for all watersheds in the project area as result of the project (**Table 11**)[22].

Table 11 – Hydrologic Modeling Calculations (TR-20) Results: Runoff Rates

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)					
	2-year	5-year	10-year	25-year	50-year	100-year
Watershed 1a						
Pre-project conditions	3.09	4.77	6.18	8.34	10.00	11.82
Post-project conditions	3.09	4.75	6.17	8.33	9.98	11.79
Watershed 1b						
Pre-project conditions	16.89	25.77	33.27	44.70	53.44	63.01
Post-project conditions	16.86	25.77	33.27	44.65	53.35	62.86
Watershed 2						
Pre-project conditions	6.73	10.37	13.46	18.17	21.78	25.75
Post-project conditions	6.73	10.37	13.46	18.17	21.78	25.75
Watershed 3						
Pre-project conditions	1.75	2.70	3.50	4.73	5.67	6.69
Post-project conditions	1.61	2.51	3.22	4.28	5.08	5.95
Watershed 4						
Pre-project conditions	10.19	15.69	20.36	27.49	32.95	38.94
Post-project conditions	10.19	15.69	20.36	27.49	32.95	38.94
Watershed 5						
Pre-project conditions	1.97	3.04	3.94	5.32	6.38	7.53
Post-project conditions	1.97	3.04	3.94	5.32	6.38	7.53
Watershed 6						
Pre-project conditions	1.07	1.67	2.18	2.96	3.56	4.21
Post-project conditions	1.07	1.67	2.18	2.96	3.56	4.21
Culvert 1b						
Pre-project conditions	12.89	19.68	25.40	34.14	40.80	48.11
Post-project conditions	12.89	19.68	20.36	34.13	40.80	48.11

[22] On March 20, 2020, the County Engineering Division determined the project's modeling technical adequate.

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)					
	2-year	5-year	10-year	25-year	50-year	100-year
Culvert 2						
Pre-project conditions	1.39	2.14	2.77	3.74	4.49	5.3
Post-project conditions	1.39	2.14	2.77	3.74	4.49	5.3
Culvert 4						
Pre-project conditions	4.26	6.56	8.51	11.49	13.77	16.28
Post-project conditions	4.26	6.56	8.51	11.49	13.77	16.28

Source: Napa Valley Vineyard Engineering, September 2019, Hydrology Study - **Exhibit G**

General Plan Conservation Element Policy CON-50c states that peak runoff following development cannot be greater than predevelopment conditions. As demonstrated above, the proposed project would not increase runoff flow rates, and, therefore, is consistent with Policy CON-50c. 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 project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly[23].

d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). Therefore, no impact would occur.

e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project area and project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California-approved chemicals would be applied to the vineyard, in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the ECP adjacent to drainage courses and watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals, generally occurring during the non-rainy season, would also minimize the amounts of chemicals that could have an effect on water resources. Because the project as designed is not expected to increase runoff rates or times of concentration in relation to existing conditions (as discussed in response c, above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project area. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 13.6 tons/year (or an approximate 20% reduction), have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

Furthermore, project approval, if granted, would be subject to the following condition of approval, in addition to the **Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation** conditions of approval identified in **Section VII (Geology and Soils**), which would further reduce and avoid potential impacts to water quality as a result of the 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).

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

Furthermore, consistent with the standard conditions identified in the **Hazards and Hazardous Materials Section (Section IX**), all operational activities that include the use or handling of hazardous materials, such as but not limited to agricultural chemical storage and washing, portable restrooms, vehicular and equipment refueling/maintenance and storage areas, soil amendment storage and the like, shall occur at least 100 feet from groundwater wells, water courses, streams and any other water resource to avoid the potential risk of surface and groundwater contamination, whether or not such activities have occurred within these areas prior to this ECPA approval.

Therefore, the proposed project as designed, in conjunction with identified conditions of approval (should the proposed project be approved), would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; no impacts are anticipated in this regard.

	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 project would not physically divide an established community: the nearest established communities of the Town of Napa located over 5.5 miles to the southwest or the Town of Yountville located over 5.5 miles to the west. No impact is anticipated

b. Surrounding land uses consist predominately of rural residential and agricultural. The subject parcel and adjacent parcels are zoned Agricultural Watershed (AW) and designated Agriculture, Watershed and Open Space (AWOS) in the Napa County General Plan Land Use Element, vineyards and associated improvements are permitted uses under these designations.

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

- The project as proposed is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the project is anticipated to decrease soil loss and potential sedimentation by approximately 20% and maintain runoff conditions as compared to existing conditions.
- The project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The project, with implementation of Mitigation Measure BR-1 and conditions of approvals 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 project. The project as proposed, with implementation of Environmental Commitments, Mitigation Measure BR-1 and standard and project-specific conditions of approval**,** would avoid potential direct, indirect, and cumulative impacts to special-status species and associated habitat occurring on the parcel.
- With implementation of Mitigation Measure BR-1 and conditions of approval, the 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 project would maintain levels of biodiversity and would avoid impacts to special-status animal species.
- As proposed, the project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey was prepared for the project (**Exhibits B-1 through B-3**).

- The project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With incorporation of the fencing conditions of approval, and that the project does not include the installation of new wildlife exclusion fencing, wildlife movement would not be further impaired as a result of the project.
- With implementation of Mitigation Measure BR-2, the project would be consistent with General Plan Policy CON-24(c), which requires replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Mitigation Measure BR-2 would require permanent preservation of 4.48 acres through deed restriction or conservation easement, and would require that trees inadvertently removed would be replaced with fifteen-gallon trees on-site at a 2:1 ratio, in accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement). The project as proposed, with implementation of Mitigation Measure BR-2 and standard and project-specific conditions of approval, would reduce potential direct, indirect, and cumulative impacts to oak woodlands occurring on the parcel to a less than significant level.
- The project is consistent with Policy CON-30, which encourages the avoidance of wetlands. The seasonal wetlands onsite are avoided with a minimum 50-foot buffer.
- The 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 project would reduce soil loss and sedimentation, and result in no change to runoff.
- The project as proposed is consistent with Policy CON-65b. Due to the project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The project as proposed is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The project as proposed is consistent with General Plan land use designation of Agricultural, Watershed and Open Space (AWOS), and is therefore consistent with Policy AG/LU-20.

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

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is located over 11 miles to the south of the project site. Proposed site improvements and development of vineyard on the parcel would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped, planted with vineyards and/or contain wineries. The nearest offsite residences are approximately 180 feet to the south of the project site (Block A), 1,000 feet to the northwest (Block B), approximately 260 feet west and 200 feet north of Block C2.

Activities associated with the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Equipment necessary for project construction and operation includes a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. **Table 12** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 12**, equipment used for vineyard development could produce a maximum of 89dBA (A-weighted decibels) at a distance of 50 feet.

Table 12 – Construction Equipment Noise Emission Levels

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

Source: Napa County Baseline Date Report Chapter 6 (Noise Resources) November 2005 (Version 1)

Table 13 characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA. Based on distances to existing residences, noise associated with project construction would be approximately 70-75 dBA at the nearest existing offsite residences.

Table 13 – 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

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

occur on a temporary and seasonal basis. **Table 14** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 14 – Estimated Distance to dBA Contours from Farming Activities [1]

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

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately 65 dBA to 70 dBA at the closest existing offsite residences.

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

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

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

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

Discussion

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

that these employees would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the project vicinity or greater region, either directly or indirectly. No impact would occur.

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

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

Discussion

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

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

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

a-b. Currently, the project parcel is largely undeveloped, with a paved driveway, gate, perimeter cattle fence and dirt access road with culverts over the County definitional streams that lead to two of the three existing wells on site. The project site is accessed from Atlas Peak Road. Trucks and other vehicles would use County roads or State highways for short periods during construction and subsequent vineyard operation.

In accordance with Senate Bill 743, the California Natural Resources Agency adopted the new State CEQA Guidelines Section 15064.3(b) in December 2018. These revisions to the State CEQA Guidelines' criteria for determining the significance of transportation impacts focus primarily on projects in transit priority areas. The revisions shift the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. Vehicle miles traveled, or VMT, is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person. The newly adopted guidance provides that a lead agency may elect to be governed by the provisions of Section 15064.3(b) immediately. The provisions of Section 15064.3(b) became effective statewide on July 1, 2020.

Although General Plan Policy CIR-7 addresses VMT reduction efforts specific to development projects or modifications, Napa County has not yet formally adopted updated transportation significance thresholds or updated procedures for analyzing transportation impacts related to VMT. Because Napa County has not finalized or adopted the regulations of Senate Bill 743, this initial study analysis relies on guidance from the California Governor's Office of Planning and Research's December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Guidelines) to determine the significance of transportation impacts (OPR 2018).

The transition to VMT was required of lead agencies as of July 1, 2020. The Circulation Element includes new policies that reflect this new regulatory framework for transportation impact assessment, along with a draft threshold of significance that is based on reduction of VMT compared to the unmitigated project rather than the regional average VMT (Draft Policies CIR-7 through CIR-9). Staff believes this alternative approach to determining the significance of a project's transportation impacts would be better suited to this County's rural context, while still supporting the efforts of the County to achieve the greenhouse gas emissions goals of its pending Climate Action Plan. The reduction in VMT and, correspondingly, GHG emissions from the transportation sector, is also necessary for Napa County, the region, and the state to achieve long-term, statewide mandates targeted toward reducing GHG emissions. Such mandates include, but are not limited to Executive Orders S-3-05 and B-16-12, which respectively, set a general statewide GHG emissions reduction target of 80 percent below 1990 levels by 2050, and an 80 percent GHG emissions reduction below 1990 levels (also by 2050) specifically for the transportation sector.

As defined in State CEQA Guidelines Section 15064.3(a), VMT refers to the amount and distance of automobile travel attributable to a project. The Technical Guidelines further explain that in Section 15064.3, the "automobile" "refers to on-road passenger vehicles, specifically cars and light trucks." For this reason, the focus of this VMT analysis is on trips by passenger vehicles (i.e., cars and light trucks) generated by the proposed project. However, this Initial Study also includes an analysis of greenhouse gas emissions associated with heavy truck traffic generated by the proposed project (as well as other traffic); it also addresses potential impacts of all project vehicles, including heavy trucks, related to air quality and greenhouse gas emissions (See Section III *Air Quality*, and Section VIII *Greenhouse Gas Emissions*, respectively.)

The proposed project is expected to generate approximately 4 one-way trips per day during construction and installation for anticipated work crews of 4-6 employees. It is anticipated that approximately 10 truck trips would be needed to mobilize and demobilize construction equipment (i.e. deliver and remove heavy equipment at the start and end of project construction). Vehicular equipment anticipated for

project implementation typically includes a tractor/trailer, D6 bulldozers, backhoe, excavator, dump truck, pickup trucks, water truck, flatbed trucks, and ATVs. Pruning would occur approximately 10 days of the year and is anticipated to generate 7 daily employees, resulting in approximately 6 one-way trips per day during pruning. Weed control would occur between February and July/August and is anticipated to generate 5 daily employees. Harvest is anticipated to generate up to 10 daily employees resulting in approximately 5 one-way trips per day for a period of 15 days of the year. Up to 16 grape haul truck trips are anticipated during harvest and an additional 12 trucks would be used during the remainder of the year. Vehicular equipment for ongoing vineyard maintenance is anticipated to include ATVs, tractors, truck and equipment trailers, and passenger cars and/or light trucks. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

As indicated above, Technical Guidelines provide a screening criterion that could be used to determine whether a VMT analysis is warranted for small projects, which are defined as projects that would generate fewer than 110 trips per day and may generally be assumed to cause less-than-significant transportation impacts. As indicated above, construction of the proposed project would generate up to approximately four one-way trips per day, and periodically up to 10 one-way truck trips per day. And vineyard operation would generate during harvest up to approximately five one-way worker trips, and up to 16 one-way truck trip per day (resulting in up to 42 round trips per day): other typically vineyard operations (as outlined above) are anticipated to generate up five one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day. Additionally, daily trips associated with the project would be temporary and seasonal in nature, further supporting conformance and observance of this screening criterion.

Traffic generated by construction of the proposed project and subsequent vineyard operation, including harvest, would increase traffic on area roadways and result in additional vehicle miles traveled compared to current conditions. These activities would occur on a temporary and/or seasonal basis, and they would generally occur during non-peak hours. The proposed project would result in a minimal increase in traffic levels (of up to approximately 14 one way trips during construction) along the local roadways compared to existing conditions, and would not result in decreased travel times on roads in the vicinity of the proposed project or a substantial increase in vehicle miles traveled given the scale of the proposed project and existing site development. Further, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, or designated bicycle and pedestrian facilities or with CEQA Section 15064.3(b). Therefore, the impact would be less than significant.

c. The project proposes to utilize the existing site access off Atlas Peak Road for project development (**Figures 1-3**). The project does not include roadway improvements and/or modifications to Atlas Peak Road, or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the property and other agricultural uses in the area. Therefore, the potential for the creation, substantial increase in hazards or hazards due to a geometric design feature and incompatible uses would be a less than significant impact.

d. The existing roads would continue to provide adequate emergency access to the project parcel and project area, resulting in no impact.

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

the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion

Notice of the proposed project was sent to the Yocha Dehe Wintun Nation, the Middletown Rancheria, and the Mishewal Wappo Tribe of Alexander Valley on May 24, 2019. On October 10, 2019, after not receiving a written response with a request for consultation in over 30 days from the original consultation invitation, the County sent to all three tribes a notice of conclusion of consultation proceedings. On October 28, 2019, the County received a response letter from Yocha Dehe Wintun Nation indicating that the proposed project is not within the aboriginal territories of the Tribe, and therefore decline to make comments on the project. The Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley did not respond within the 30-day notification period; therefore, no consultation was requested.

a-b. As discussed in **Section V (Cultural Resources),** the proposed project's Cultural Resource Reconnaissance (Russell Kobayashi, May 14, 2018), did not identify any significant historical or archaeological resources within the project parcel. Because the proposed project would avoid historical or archaeological resources no impacts are anticipated. Furthermore, no 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, the incorporation of the Cultural Resources conditions of approval (should the proposed project be approved), would result in no impact to Tribal Cultural Resources, including those that may be eligible for the CHRIS or local register or cultural resources as defined in Public Resources Code Section 5024.1(c).

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

Discussion

a. The proposed project would generate a minimal number of employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the property on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater, and one existing groundwater well would provide irrigation water to the vineyard. Irrigation pipelines would be located within existing roadways and/or within proposed clearing limits. The proposed project would include the installation of a limited number of onsite storm water drainage features such as straw wattles, water bars, and a permanent no-till vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage system is described in **Sections IV (Biological Resources), VII (Geology and Soils),** and **X (Hydrology and Water**

Quality). As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in **Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources)** and **IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.

b. The proposed approximate 13.9 net planted acres of vineyard would be supplied by three onsite wells. The WAA conducted by Napa Valley Vineyard Engineering (**Exhibit D**) concluded that after full development, water use for the project parcel is estimated to be approximately 7.62 AF/year. Based on the site-specific recharge analysis, the project parcel is estimated to have a groundwater recharge allotment of approximately 32.8 AF/year. Therefore, the proposed project is anticipated to have a less than significant impact on water supplies. Also see **Section X (Hydrology and Water Quality)** for additional disclosures and analysis.

c. Given the small number of employees that the 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 is expected to be minimal and would be used for road surfacing, landscaping and erosion control features, including rock slope stabilization. Rock not used immediately would be stockpiled for future use inside the proposed clearing limits. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, end posts, etc.) would be negligible. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of onsite by spreading it back into the vineyard, burning it, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, State, and local statues and regulations. Therefore, no impact would occur.

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

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as a High Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). The Atlas Fire of October 2017 moved through much of the Atlas View II Vineyard property as a fast-moving ground fire. Most of the vegetative ground cover and much of the sparse shrub layer were removed by the fire. Most of the oak woodland canopy on the property remained green and those trees whose canopies were scorched, quickly recovered. The project biologist, Northwest Biosurvey, observed that, while the fire removed most young seedlings, these should be quickly replaced, and that the mature, fire-adapted woodland on the parcel is healthy and shows good regeneration.

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 and project area. Therefore, the proposed project would not impact an adopted emergency response plan or emergency evacuation plan.

b-c. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation

would be cleared prior to developing the vineyard, and the risk would be temporary due to the short duration of construction (approximately six months). Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk and this impact would be less than significant.

b. Although the proposed project would alter land cover and could include burning cane, the project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite, and there would be no change or a decrease in peak flow for all watersheds in the project site (see **Section X - Hydrology and Water Quality**). The nearest offsite residences are less than 200 feet and over 1,000 feet to the south of the project site (Block A), 1,000 feet to the northwest (Block B), approximately 260 feet west and 200 feet north of Block C2. Additionally, as discussed in **Section IX (Hazards and Hazardous Materials**) the risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project area as compared with existing conditions. For these reasons, no structures or people are anticipated to be exposed to downslope or downstream flooding or landslides as a result of wildfire, and the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have the impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

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

a. As discussed in this Initial Study, implementation of # P19-00171-ECPA, with the incorporation of its Environmental Commitments (i.e. Raptor and Passerine Bird Protection and Bat Protection) and identified conditions of approval (should the project be approved), would not have the potential to significantly degrade the quality of the environment.

Incorporation and implementation of the Environmental Commitments included in this project (as modified by conditions of approval) would minimize and avoid potential impacts to special-status bird species and special-status bat species that may utilize trees/woodland within and adjacent to project area for nesting, roosting, or maternal activities. The overall environmental conditions of the project site and subject property are not considered regionally unique or rare. The wetland and County-definitional streams (i.e. ephemeral/intermittent streams) identified on the subject parcel have been avoided and provided with buffers consistent with code requirements. No cultural resources or examples of California history or prehistory have been identified within the project area, and with incorporation of standard and project specific 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, with incorporation of mitigation measure(s), Environmental Commitments, and conditions of approval, is not anticipated to result in potential significant direct, indirect, and cumulative impacts to the quality of the environment or wildlife species.

b. The subject property is located within the Capell Creek – Upper Reach drainage that contains approximately 7,397.5 acres. In 1993, vineyard acreage within this drainage was approximately 37 acres, or 0.5% of the drainage. Since 1993 approximately 246.8 acres of additional vineyard (or 3.3% of the drainage) have been developed to vineyard, resulting in approximately 3.8% of the drainage (or approximately 283.8-acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Capell Creek – Upper Reach Drainage, that there are approximately 2,966 acres (40% of the drainage) having the potential to be developed to vineyard; this, in conjunction with existing and approved vineyard development (approximately 283.8-acres), results in a total potential build out of approximately 3,249.8 acres or approximately 43.9% of the drainage. The PPS layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

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 of reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Capell Creek – Upper Reach drainage) over the last 26 years (1993-2020) were used to project an estimation of vineyard development for the next three to five years. Over the past 26 years within the Blossom Creek drainage, approximately 9.5-acres of agriculture were developed per year (246.8 divided by 26). 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 28.5 to 47.5-acres over the next three to five years within the Capell Creek – Upper Reach drainage are considered reasonable estimates. Due to the fact that the project application was 'substantially conforming' prior to enactment of the Water Quality Tree Protection Ordinance (WQTPO) (Ordinance #1438), it is not subject to the more stringent setback and vegetation retention requirements provided by the Ordinance. However, the project as proposed and with implementation of Mitigation Measure BR-2 would comply with the WQTPO and the policies set forth in NCC Chapter 18.108 that require setbacks of 35 to 150 feet from watercourses (depending on slopes), setbacks of 50 feet from wetlands, and retention of 70% of a property's cover canopy, as well as General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio, all of which limit the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VIII:

The project (#P19-00171-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the air basin that would generate emissions of criteria pollutants, including suspended particulate matter (PM) and equipment exhaust emissions. For construction-related dust impacts the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in **Section III** (**Air Quality**) and shown in **Table 3** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the project would be subject to standard air quality conditions of approval (should the project be approved) that require implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 8** and **9**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

A project-specific Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. and subsequent response to County comments (Northwest Biosurvey, September 2018, June 2019 and June 2020 - **Exhibits B-1 through B-3**) was performed for the project. The survey included a record search to identify the presence or potential presence of special-status species within the project area. The records search included the CNDDB and CNPS databases. As discussed in **Section IV** (**Biological Resources**), two special-status plant species and their habitat were identified in the subject project parcel and project area. It also identified that there is the potential for special-status animal species (i.e. pallid bat and western red bats, foothill yellow-legged frog, western pond turtle, white-tailed kite, Lawrence's goldfinch, Lewis' woodpecker and loggerhead shrike) to occur within

the project area because potential habitat for these species (i.e. oak woodland, grassland, edge habitats) exist within the parcel. With implementation of the project's Environmental Commitments, standard and project-specific conditions of approval, and Mitigation Measures BR-1, the project would reduce potential impacts to these species to a less than significant level. Therefore, the project as proposed, with implementation of its environmental commitments, standard and project specific conditions of approval, and mitigation measure would not contribute to a cumulatively significant impact to special-status and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII:

The Cultural Survey Report conducted for the project did not identify any significant historical or archaeological resources within the project parcel; however, there are known cultural resources located on adjacent parcels. With the incorporation of standard and project specific conditions to protect cultural and tribal resources that may be discovered accidentally, significant impacts to cultural and tribal resources are not expected (see **Section V Cultural Resources** and **Section XVIII 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 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 3.39 tons/year as compared to existing conditions (**Table 7**). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas, and the installation of fiber rolls and water bars, diversion ditches, rock stabilization at low points, all of which reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the project would reduce soil loss as compared to existing conditions the project is not anticipated to contribute cumulatively to sediment production within the Capell Creek – Upper Reach drainage; therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

Because geologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA, the County's General Plan Goals and Policies, in particular General Plan Conservation Element Policy CON-48 requires development projects to result in no net increase in sediment erosion conditions and soil loss as compared to existing conditions, it is reasonable to anticipate that those projects would also have a less than significant project specific and cumulative impact on erosion and associated sedimentation.

Hydrology and Water Quality - Section X:

Water use calculations provided in the WAA prepared by Napa Valley Vineyard Engineering (March 2019, revised September 2019 - **Exhibit D**) indicate that the proposed development consisting of approximately 17.1 net acres of planted vineyard would result in approximately 7.62 acre-feet per year (AF/yr). The proposed project has been reduced by 3.2 acres to a total of 13.9 net acres of vineyard since the preparation of the WAA, and, as such, is anticipated to result in reduced water demand.

The average annual rainfall utilized in the groundwater recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions. Based on annual average rainfall for the area (approximately 34 inches per year) and the size of the subject property (approximately 115.75-acres available for recharge), and other conditions that affect the amount of precipitation that has the potential to recharge the groundwater aquifer, such as geological conditions, runoff characteristics, and evapotranspiration, it was anticipated that approximately 10% of average rainfall or 32.8 AF/yr would be available for groundwater recharge.

Considering the anticipated water use for the proposed vineyard of 7.62 AF/yr[24] is well below the properties anticipated annual groundwater recharge rate of approximately 32.8 AF/yr, potential impacts associated with groundwater use is anticipated to result in less than significant impacts to groundwater supplies, groundwater recharge, local groundwater aquifer levels, and well interference or drawdown effects on nearby wells.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the TR-20 Runoff Model has been prepared by Napa Valley Vineyard Engineering (March 2019, revised September 2019 - **Exhibit G**). The project does not include the creation of concentrated flows, or materially alter site drainage patterns, or materially alter site slopes no change in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Exhibit G**), therefore no significant impacts due to changes in hydrology are expected.

The project is consistent with General Plan Conservation Element Policy CON-50c that requires that peak runoff following development is not greater than predevelopment conditions. Additionally, as discussed in **Section VII (Geology and Soils)** the proposed project is anticipated to decrease soil loss as compared to existing conditions. Therefore, the proposed project would have a less than significant

[24] The WAA analyzed a larger project area of 17.1 net acres of vineyard; the project as proposed would result in 13.9 net acres and thus would result in reduced water demand.

impact with respect to alterations of existing drainage patterns of the site or area that would result in increased runoff, considerable on or off-site erosion, siltation or flooding.

Furthermore, because hydrologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA and County General Plan Policy CON-50(c), which requires development projects be designed so that peak runoff following development is not greater than predevelopment conditions, it is reasonable 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 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 downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the project is considered to be less than cumulatively considerable. The project does not conflict with any current zoning for agricultural or forestry use, nor does the 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 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 number of off-peak vehicle trips associated with the project are considered less than cumulative considerable. The project does not include the construction of structures that would result in population growth or displacement of people, the project would not adversely impact current or future public services, or require the need for utilities and service systems. For these reasons, impacts associated with the 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, and with incorporation of identified mitigation measures and conditions of approval as discussed throughout this Initial Study, the proposed project is not anticipated to result in either project-specific or cumulatively considerable negative impacts; therefore, impacts associated with this project that may be individually limited, but cumulatively considerable, would be less than significant.

c. Implementation of the 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: