

COUNTY OF NAPA
PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT
1195 THIRD STREET SUITE 210
NAPA, CA 94559
(707) 253-4417

Initial Study Checklist
(form updated January 2019)

1. **Project Title:** Kenzo Estate: Phase 9 Vineyard Agricultural Erosion Control Plan Application (ECPA) #P21-00086-ECPA
2. **Property Owner:** Kenzo Estate Inc.
3. **County Contact Person, Phone Number and email:** Pamela Arifian, Planner III, (707) 259-5934, Pamela.Arifian@countyofnapa.org
4. **Project Location and Assessor's Parcel Number (APN):** 8999 Wild Horse Valley Road; APNs 033-190-014, -015 & 033-130-046 (Figures 1 and 2)
5. **Project Sponsor:** Kenzo Estate Inc.
c/o Marc Nanes
3200 Monticello Road
Napa, CA 94558
Agent: Michael R. Muelrath (Registered Professional Engineer No. 67435)
Applied Civil Engineering, Inc.
2160 Jefferson Street, Suite 230
Napa, CA 94559
6. **General Plan description:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Background/Project History:** The proposed project would be developed over three parcels, including approximately 0.16 gross acres on APN 033-190-014 (portion of Block 1), approximately 2.94 gross acres on APN 033-130-046 (majority of Block 1), and approximately 10 gross acres on APN 033-190-015 (Block 2). The owner, Kenzo Estates LLC, owns 38 contiguous parcels totaling over 3,284 acres in the Wild Horse Valley, which include a 150,000 gallon winery, approximately 125 acres of vineyards under approved Erosion Control Plan #97574, as modified by approved Erosion Control Plan #P10-00019-ECPA (and additional acreage installed without benefit of an ECP). Other uses on the project parcels include two existing residences on APN 033-190-015, Wild Horse Valley Road, and a gravel road.

A majority of the estate, including the proposed project area, burned during the 2017 Atlas Fire and is therefore subject to Napa County Code (NCC) Section 8.80.130 (Conservation Regulations for fire-damaged properties), which requires the Vegetation Retention Requirements analysis (per NCC Section 18.108.020(c)) be based on the conditions as configured on the property on June 19, 2018 aerial.
9. **Description of Project:** The proposed project involves the clearing of vegetation, earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 13.5 gross acres of vineyard (i.e., development area or proposed clearing limits) with approximately 11 net planted acres, within two vineyard blocks located on three parcels that comprise approximately 359 acres of the subject property (i.e., project site). Average slopes within the development area range from 11% to 18% with an overall average slope of 13%. There are pockets of land within the proposed development area totaling approximately 0.99-acre that exists on slopes over 30%. A total of 3.2 acres of coast live oak woodland would be removed as part the project, including 121 coast live oak trees with sizes ranging from 6 to 70 inches diameter at breast height (dbh). Rock removed during the clearing and development of the land would be crushed and returned to the field, used for rock-filled bench sediment retention structure and rip rap energy dissipators at the outlet of water bars, or used to line vineyard avenues to limit their susceptibility to erosion and provide all-weather access. Rock not used would be added to existing stockpiles located just east of the development area. There would be no transport of spoils off-site. The vineyard would be irrigated with groundwater from an existing well located on the subject property (APN 033-190-015), and irrigation pipelines would be located in vineyard areas and/or within the proposed clearing limits. Frost protection would be provided using wind machines approximately two to eight times per year from 11 pm to 8 am. The project area is not currently fenced; proposed wildlife exclusion fencing would enclose the entire project area, inclusive of the ephemeral stream and wetland (refer to Figure 4 in **Exhibit A**).

Erosion Control Measures: Temporary erosion control measures include silt fence, straw wattles, erosion control blankets, water bars with rock rip-rap energy dissipators at outlets, application of straw mulch, and other practices as needed. Permanent erosion control measures include 150-foot long by 7-foot wide by 2.5-foot deep rock-filled bench retention structure approximately 300-feet uphill from the vineyard blocks, and a permanent cover crop maintained at a minimum vegetation cover density of 80% in vineyard avenues and

turnaround areas, and an alternate row tillage farming practice. Details of the proposed erosion control measures are provided in the Kenzo Estate Phase 9 Vineyard Development Erosion Control Plan (ECP), January 2021 (revised October 2021), prepared by Michael R. Muelrath (RPE No. 67435) of Applied Civil Engineering, Inc. (**Exhibit A-1**).

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

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

- a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 3-foot by 6-foot spacing pattern for an approximate vine density of ±2,420 vines per acre.
- b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
- c. Ongoing operation and maintenance of the vineyard, including: vine management (pruning, fertilization, pest and disease control, and frost protection), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. No pre-emergent herbicides would be used for weed management. Herbicide to control weeds within the vineyard block would be limited to spraying of post-emergent herbicide in a narrow 18-inch maximum width strip spray, if necessary, to control weeds at the base of vines, and may be applied in the spring (no earlier than February 15) to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P21-00086-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P21-00086-ECPA.

Table 1 – Implementation Schedule

April 1	Commence clearing and tillage operations.
September 1	All tillage and erosion control complete.
September 15 ¹	All winterization complete, including seeding, straw mulching, and straw wattle installation.

¹ During the winter months in municipal watersheds (September 15 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Sections 18.108.027(C) and 18.108.070(L).

Table 2 – Annual Operations Schedule

March	Prune vines.
April to July	Sulfur application to protect against mildew.
February/July	Weed control under vines.
May/July	Weed control between rows. Mow cover crop.
September to October	Harvest. Winterize vineyard and vineyard avenues.
November to April	Monitor and maintain erosion control measures and repair as necessary during rain events.

Project construction activities are anticipated to require up to approximately 10 to 20 total one-way trips per day over 90 days for work crews of between 20 and 30 workers. Approximately 10 to 20 additional one-way trips are anticipated for project mobilization and demobilization for equipment and materials delivery and pick up. Construction equipment is anticipated to include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, dump trucks, water trucks, and pickup trucks, passenger vehicles, and other small to medium service vehicles.

Vineyard operation, including pruning and harvest, is anticipated to require up to 10 to 20 one-way worker trips per day for 30 to 60 days for work crews of approximately 10 to 20 workers. Approximately two additional one-way trips per day are anticipated for grape haul trucks during harvest which is expected to be three to 10 days. Up to four vehicle/truck round trips would occur annually during operation. Anticipated equipment for vineyard operations is anticipated to include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles, and ATVs.

Implementation of the proposed project would be in accordance with the Kenzo Estate Phase 9 Vineyard Development Erosion Control Plan (ECP), January 2021 (revised October 2021), prepared by Michael R. Muelrath (RPE No. 67435) of Applied Civil Engineering, Inc. (**Exhibit A**). The proposed project is further described in the application materials including the Supplemental Project Information sheets (**Exhibit G**). 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.countyofnapa.org/2876/Current-Projects-Explorer>.

10. **Describe the environmental setting and surrounding land uses.**

The project site is located on the mountains separating the Napa Valley from Wooden Valley, approximately 5.5 aerial miles northeast of the City of Napa in unincorporated Napa County, and approximately 1.2 road miles north of the northerly terminus of the County-maintained portion of Wild Horse Valley Road (**Figures 1-3**). The project site, located at 8999 Wild Horse Valley Road, is accessed by an existing paved private driveway that provides access to several existing residential, winery and vineyard properties in the vicinity of the project area. The private road network is accessed from both Monticello Road (State Route 121) to the north and Wild Horse Valley Road to the south.

The project area is located on mild to moderately sloping hillside, on a property with slopes ranging from less than 5% to over 30%, and within the Lake Madigan domestic water supply drainage and the regional Suisun Bay watershed. There is an ephemeral stream located between the proposed blocks that flows westerly, through a seasonal wetland and leaves the project area via an existing culvert that crosses under the existing driveway. The ephemeral stream is avoided with a minimum 35-foot setback in accordance with Napa County Code (NCC) Conservation Regulations and §18.108.025, and the wetland is avoided with the minimum 50-foot setback in accordance with NCC §18.108.026. Runoff continues to flow westerly in an open channel drainage course for another 550 feet where it enters Wild Horse Creek and thence Lake Madigan, approximately 1.1 miles to the southeast. There are two blue-line streams located on the subject parcels. One is an unnamed tributary to Wooden Valley Creek located on APN 033-130-046, and, at the closest point, is located approximately 1,100 feet northeast of the project area and on the opposite side of a ridge from the proposed project area. The second blue-line stream located on the subject property is Wild Horse Creek, located on APN 033-190-015, and, at the closest point, is located approximately 460 feet southwest of the proposed project area.

The development area consists primarily of non-native grassland, with peripheral stands of oak woodland, the ephemeral stream and seasonal wetland, both of which would be completely avoided by the proposed project. Elevations within the development area ranges from approximately 1,555 to 1,655 feet above mean sea level (msl). The project area is a small portion of a much larger estate, as described above, which contains several residences, vineyards, winery and undeveloped land.

The closest active fault to the project site is the Green Valley Fault located approximately 0.2-mile to the east (Napa County GIS: Hazards landslide lines layer). Several landslides were previously mapped on the project parcels and a landslide hazard evaluation was conducted (O'Connor Environmental Inc., 2020 - **Exhibit C**); refer to discussion in **Section XVII, Geology and Soils**. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 1978) as Sobrante loam with 30 to 50 percent slopes, Perkins gravelly loam with 5 to 9 percent slopes, and Hambright-Rock Outcrop complex with 30 to 75 percent slopes (Applied Civil Engineering, **Exhibit A**).

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

Responsible (R) and Trustee (T) Agencies

California Department of Fish and Wildlife (CDFW) (T)
City of Vallejo Water Operations Division (R)

Other Agencies Contacted

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

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

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 27, 2021. The County received a response letter from Yocha Dehe Wintun Nation dated June 11, 2021, indicating that the project area is located within the aboriginal territories of the Yocha Dehe Wintun Nation, that the Tribe has a cultural interest and authority in the proposed project area. The letter requested the cultural resources study and project information, which the County re-sent on June 15, 2021. On June 17, 2021, the County received a letter from Yocha Dehe Wintun Nation recommending inclusion of cultural monitors during initial ground disturbance, as well as cultural sensitivity training for any and all project personnel prior to project initiation. On June 13, 2022, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation. No further communication was received from the tribes from whom consultation was requested within the 30-day notification period. The County sent consultation closure notices to Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on June 13, 2022.

This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with ECP #P21-00086-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.countyofnapa.org/2876/Current-Projects-Explorer>.

- Applied Civil Engineering, Inc., January 2021 (revised October 2021) Kenzo Estate Phase 9 Vineyard Development Erosion Control Plan (**Exhibit A**).
- WRA, Inc., January 2021, Biological Resources Reconnaissance Survey Report, 8999 Wild Horse Road, Unincorporated Napa County (APNs: 033-190-014, -015, 033-130-046) (**Exhibit B-1**)
- WRA, Inc., July 14, 2021, Response to Napa County Comments on Biological Resources (File #P21-00086-ECPA (**Exhibit B-2**))
- Applied Civil Engineering, Inc., October 4, 2021, Kenzo Estate Oak Woodland Retention Analysis (**Exhibit B-3**)
- Archaeological Resource Service, January 25, 2020, A Cultural Resources Evaluation of the Kenzo Estate, Phase 9 Vineyard Erosion Control Plan, 8999 Wild Horse Valley Road, Napa County, California.
- O'Connor Environmental, Inc., April 27, 2020, Landslide Hazard Evaluation, Kenzo Estates Vineyard APNs 033-130-046, 033-190-014, and 033-190-015 (**Exhibit C**).
- David Steiner, CPESC, CPSWQ, May 2019 (revised June 15, 2021), Kenzo Vineyards, Phase 9, Soil Loss Analysis for New Vineyard Proposal (**Exhibit D**)
- O'Connor Environmental, Inc., November 4, 2019 (revised October 5, 2021), Water Availability Analysis, Kenzo Estates, Inc. (**Exhibit E**).
- David A. Steiner, CPESC, CPSWQ, January 20, 2020, Hydrologic Analysis, Proposed Phase 9 Vineyard Development, Kenzo Estate, 8999 Wild Horse Valley Road, Napa, CA (**Exhibit F-1**).
- David A. Steiner, CPESC, CPSWQ, November 24, 2022, Hydrologic Analysis Addendum, Kenzo vineyard Proposal (**Exhibit F-2**).
- Application Submittal Materials & Correspondence (**Exhibit G**)
- Project Revision Statement, dated December 27, 2022 (**Exhibit H**)
- Site inspection conducted by Napa County Planning Staff on May 19, 2021.
- 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.

Pamela Arifian

December 29, 2022

Signature

Date

Name: Pamela Arifian, Planner III
Napa County
Planning, Building and Environmental Services Department

ENVIRONMENTAL CHECKLIST FORM

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

Discussion

a-b. The project site is located in the mountains separating the Napa Valley from Wooden Valley, approximately 1.7 miles south of Monticello Road (State Highway 121), which is a Napa County-designated scenic roadway (Napa County GIS, Scenic Corridors Layer). The proposed vineyard is not visible due to the topography of the land between the scenic road and the proposed vineyard area, which is located on the opposite side of a minor ridgeline located over 1.5 miles south of Monticello Road. Further, the proposed vineyard use is consistent with the Napa County General Plan agricultural land use designations and with land uses in the area. Additionally, visual impacts related to construction equipment and activities at the development area would be short-term and temporary in nature.

Existing vineyards are located within a half-mile from the project site. As described in the Project Description and in **Section IV (Biological Resources)**, trees would be removed during project construction. These trees are not visible by neighboring land uses, in part due to the size of the parcel and topography, as well as the remote nature of the project area from other land uses; therefore, the proposed project would not result in damage to a scenic resource.

There are no major ridgelines in the vicinity of the project area, and, while the project site is located on the south side of a minor ridgeline (Napa County GIS, Ridgelines Layer), as mentioned above the project site is not visible from neighboring uses or public roadways given the remote location on private road, open space, and topography of the area. There are no historic buildings on the site, nor are there any significant rock outcroppings or geologic features on the project site that would be impacted by the project. Therefore, for the reasons described above the proposed project would have a less than significant impact on a scenic vista, scenic highway, or scenic resources such as historic buildings, scenic trees, or rock outcrops.

c. The proposed project would result in the removal of existing vegetation within the development area and it includes the development of new vineyard. The proposed project is consistent with the Napa County Agriculture, Watershed and Open Space (AWOS) General Plan land use designations and with adjacent land uses, which include other vineyards, rural residences and a winery. Although trees would be removed, as explained in questions a-b above, the trees are not visible from public viewpoints, and their removal would not substantially degrade the existing visual character or quality of public views of the site or its surroundings. For these reasons, the impact would be less than significant.

d. Proposed agricultural operations on the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September and October), that could include nighttime activity (typically with a 4 a.m. start time). The proposed project would include sulfur applications (that could occur from 10 p.m. to 6 a.m.) up to five times per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new

source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses. Therefore, the proposed project would result in a less than significant impact.

II.	AGRICULTURE AND FOREST RESOURCES. ¹ Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	c) Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	d) Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The proposed project would plant an agricultural crop and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be no impact.
- b. The project site has a Agriculture, Watershed and Open Space (AWOS) General Plan designation and is zoned as Agricultural Watershed. Therefore, the establishment of vineyard totaling approximately 13.5 gross acres (11 net acres) is consistent with project site’s land use and zoning designations. The project site does not have a Williamson Act contract associated with it. Therefore, the proposed 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 (Napa County GIS). 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.

¹ “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.

- e. The proposed project does not include the construction of roadways or other infrastructure that would result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would have no impact on agricultural or forest resources of Napa County.

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

Discussion

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

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

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

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

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts: CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022 . The proposed thresholds to evaluate GHG and climate impacts from land use projects are qualitative, therefore there is no bright-line (quantitative) level to mitigate below. Projects that decline to integrate qualitative design elements can alternatively demonstrate consistency with a local Greenhouse Gas (GHG) Reduction Strategy that meets the criteria of the State CEQA Guidelines section 15183.5(b).

There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions; refer to **Section VIII, Greenhouse Gas Emissions**.

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

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

The impacts associated with implementation of the proposed project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O₃), ozone precursors oxides of nitrogen and reactive organic gases (NO_x and ROG), carbon monoxide (CO), nitrogen dioxide (NO₂), and suspended PM of ten micrometers or less and two and a half micrometers or less (PM₁₀ and PM_{2.5}). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO₂), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

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

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

In order to assess potential air quality and GHG emissions, a review of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards² for an approximately 560-acre vineyard development, Walt Ranch Vineyard³ for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards⁴ for an approximately 400-acre vineyard development⁵.

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

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

Variations or similarities in emissions modeling results between the three projects can be attributed to the modeling platform and

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

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

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

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

version used, and differences in modeling assumptions and inputs such as quantities and types of vegetation to be removed, construction trips, construction equipment and duration of use/operation, and operational equipment operation and trips.

Table 3 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO _x	PM _{2.5}	PM ₁₀
	Construction Emissions			
Pounds per day: 150-acre vineyard development ¹	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to 14.53
Pounds per day: 150- to 250-acre vineyard development ²	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development ^{3, 4}	4.6	42.3	5.21 ⁴	24.21 ⁴
Construction threshold	54	54	54	82
Operational Emissions				
Pounds per day: 400-acre vineyard operation ¹	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard operation ²	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard operation ³	4.3	22.3	1.4	2.3
Operational threshold (lbs/day)	54	54	54	82
Tons per year (Metric) ^{1,5}	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

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

Because the proposed project's 13.5 gross acre vineyard (11.0 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less than those identified in **Table 3** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality condition described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project.

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ⁶ or the PERP website⁷.

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).

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

⁷ <http://www.arb.ca.gov/portable/portable.htm>

Therefore, implementation of the proposed project would result in less than significant air quality impacts, and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

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

Land uses adjacent to the development area include open space, vineyards, a winery and rural residences. The closest school (Vichy Elementary) is located approximately 3 miles west of the development area in the City of Napa (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 0.4-mile southwest from the development area. The closest residential area in unincorporated Napa County east of the City of Napa is located approximately 2 miles west of the development area.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur approximately 3 miles from the closest school and 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.

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

Discussion

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

- WRA, Inc., January 2021, Biological Resources Reconnaissance Survey Report, 8999 Wild Horse Valley Road, Unincorporated Napa County (APNs: 033-190-014, -015, 033-130-046) (**Exhibit B-1**)

- WRA, Inc., July 14, 2021, Response to Napa County Comments on Biological Resources (File #P21-00086-ECPA) (**Exhibit B-2**)
- Applied Civil Engineering, Inc., October 4, 2021, Kenzo Estate Oak Woodland Retention Analysis (**Exhibit B-3**)
- 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 (CNDDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos

WRA conducted an assessment of biological resources on the project site and surrounding area on April 11 and May 24, 2018. The surveys documented: land cover type (e.g., terrestrial communities, aquatic resources); suitable habitat for any special-status plant or wildlife species; presence of aquatic habitat natural communities (e.g., wetlands); and, special-status species, if present. The surveys included a targeted bat assessment and tree survey. On July 2, 2021, a field assessment was performed by WRA biologists focused on all trees scheduled for removal specifically, and adjacent woodland stands more generally. The assessment focused on potential bat roosting habitat/substrates within the trees, but included other indicators of notable wildlife use, e.g., the presence of raptor nest structures.

The floristic survey dates were chosen to correspond with blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project site. The surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys were performed in accordance with those outlined by Napa County, which follow those described by resource experts and agencies (CNPS 2001, CDFW 2018b; USFWS 1996). Plants were identified using Baldwin et al. (2012) and Jepson Flora Project (Jepson eFlora, 2018) to the taxonomic level necessary to determine special-status plants. The biological survey studied approximately 24.13 acres on the project site, which included the 13.5-acre development area (Figure A-3 in **Exhibit B-1**); the project site consists of the following biological communities (or habitat types): developed areas, non-native annual grassland, blue gum grove, ornamental grove, blue oak woodland, coast live oak woodland and a seasonal wetland. Wetlands and oak woodland are considered sensitive habitat types. The habitats and their acreages are shown in **Table 4**.

Table 4 – Biological Communities and Habitat Types in the Study Area

Biological Communities or Habitat Type	Approximate Pre-Project Conditions (acres)	Approximate Acreage in the Development Area
Developed Area	1.98	0.21
Non-Native Annual Grassland	13.17	3.25
Coast Live Oak Woodland	7.57	4.34
Seasonal Wetland	1.41	1.41
Total	24.13	9.21¹

¹ The development area acreage differs slightly from the total identified in the ECP due to differing mapping platforms, spatial characters, and rounding. Because approximate biological communities identified herein are based on a project site specific biological resources report, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

Source: WRA, January 2021 (**Exhibit B-1**)

- Special-Status Plants:** Based upon a review of the resource databases listed in **Exhibit B-1** (WRA, January 2021), 77 special-status plant species have been documented in the vicinity of the project site, 23 of which have the potential to occur in the project site and are listed in Appendix C of **Exhibit B-1**. Figure A-2 in **Exhibit B-1** depicts occurrence records of these species in the CNDDDB within a 5-mile radius of the project site. Two special-status plant species were identified during the floristic surveys, including dwarf downingia (*Downingia pusilla*) and Lobb’s aquatic buttercup (*Ranunculus lobbii*).

Dwarf downingia is an annual forb that is an obligate wetland plant, regularly known from vernal pool habitat and may occur in other wetland habitat types. It is listed as a California Rare Plant Rank (CRPR) Class 2B species, which means it is rare or endangered in California but common elsewhere. CRPR Class 2B plants meet the definitions of the California Endangered Species Act of the California Department of Fish and Game Code, and are eligible for state listing. Two individuals of this species were observed in the lower portion of the seasonal wetland during the May 2018 survey; this species is completely confined to wetland habitats and cannot survive in upland areas.

Lobb’s aquatic buttercup (*Ranunculus lobbii*) is an annual aquatic forb that is an obligate wetland plant that typically occurs in vernal wet areas within cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pool habitat at elevations ranging from 45 to 1,530 feet. It is listed as a CRPR Class 4 species, which means it is uncommon in California, of limited distribution or infrequent throughout a broader area in California, and their status should be monitored regularly. Approximately 50 individuals of this species were observed in the lowest portion of the seasonal wetland at a deep pool located at the culvert underlying Wild Horse Valley Road during the April 2018 survey; this species is completely confined to wetland habitats and cannot survive in upland areas.

Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is encouraged by Napa County General Plan Goal CON-3⁸. Additionally, pursuant to Napa County General Plan Policy CON-13⁹, the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and, where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

Given that the special-status plants observed during the floristic surveys are located exclusively within the wetland area and that the wetland would be avoided with a 50-foot buffer, the project as proposed would not remove or result in impacts to special-status plants and/or populations. This is consistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be avoided while allowing for the new development of up to approximately 4.3 acres of agriculture on the project site (as further disclosed and assessed below); Policy CON-17¹⁰ because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affect sensitive, rare, threatened or endangered plants.

Special-Status Animals: A total of 62 special-status wildlife species have been documented in Napa County (CDFW 2020a, Napa County 2005). Three of these species have moderate to high potential to occur within the project site and development area: pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*), and white-tailed kite (*Elanus leucurus*). A targeted bat habitat assessment was not performed. Additionally, with the exception of a few species, native bird species with protections under the Migratory Bird Treaty Act and California Fish and Game Code may use vegetation within the development area for nesting.

Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of manmade structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas in flight (WBWG, 2020). Trees within the Study Area (primarily oaks) may contain cavities or snags suitable for roosting by this species, and there are CNDDDB occurrences in the vicinity (CDFW 2019a). (WRA, January 2021 – **Exhibit B-1**).

Fringed myotis ranges through much of western North America from southern British Columbia, Canada, south to Chiapas, Mexico and from Santa Cruz island in California, east to the Black Hills of South Dakota. This species occurs in a number of habitats ranging from desert scrubland, grassland, sage-grass steppe, old growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used by this species. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in Oregon, New Mexico, and California (WBWG, 2020). Trees within the Study Area (primarily oaks) may contain cavities or exfoliating bark suitable for roosting by this species (WRA, January 2021 – **Exhibit B-1**).

White-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structures and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk, 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150-feet tall (Dunk, 1995). This species preys on a variety of small mammals, as well as other vertebrates and invertebrates. The project site provides suitable year-round habitat for white-tailed kites, including stands of oaks for nesting and

⁸ Goal Con-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

⁹ Policy Con-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to: Provide protection for habitat supporting special-status species through buffering or other means.

¹⁰ Policy CON-17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards: Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

open areas in close proximity for foraging. The species was not observed during site visits but could be present within the area (WRA, January 2021 – **Exhibit B-1**).

The proposed project is not located in an area identified by the California Natural Diversity Database as owl habitat; no owl species were identified during the surveys (Napa County GIS: CNDDDB layer; WRA 2021 – **Exhibit B-1**).

A bat habitat assessment was performed by the project biologists, focused on all trees scheduled for removal specifically, and adjacent woodland stands more generally. The assessment focused on potential bat roosting habitat/substrates within the trees. Most of the trees scheduled for removal are coast live oaks (*Quercus agrifolia*) with smaller numbers of Pacific madrones (*Arbutus menziesii*) and blue oaks (*Quercus douglasii*) also included. Five individual coast live oaks located in proposed Block 1 and one blue oak located in proposed Block 2 that are scheduled for removal were noted as providing potential bat roosting substrates. The trees each contained at least one apparent hollow within the trunk and/or a sizeable limb, with ingress/egress points. Given the solar exposure and presumed internal temperature variations, these features are not suitable for winter hibernation use by bats but may be used as day/night roosts, and potentially as maternity roosts by some species. Adjacent woodland stands in the vicinity of the project disturbance limits feature similar characteristics, with several larger oaks observed with apparent hollows that may support bat roosting (WRA 2021 – **Exhibit B-2**)

Removal and trimming of trees during the bat maternity season (generally April through August) could impact bat breeding and potentially result in the take of bats, resulting in a potentially significant impact. Implementation of **Mitigation Measure BR-1** would ensure that a pre-removal bat survey be performed to determine the absence or presence of bats, that tree trimming and removal be conducted in a two-phased system outside of seasonal periods of bat activity, to avoid and allow potential bats to escape. Therefore, with implementation of **Mitigation Measure BR-1**, potential project impacts (if approved) on bats would be less than significant.

Mitigation Measure BR-1 - The owner/permittee shall revise Erosion Control Plan #P21-00086-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of bats. A Qualified Biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a habitat assessment in order to identify suitable bat habitat in focal trees specifically identified (WRA, July 2021 - **Exhibit B-2**) and the project area(s) generally, no more than 6 months and no less than 14 days 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:

- a. Tree trimming and/or tree removal shall 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, unless the Measure b., below, is implemented. Note that these windows may shift with atypical temperatures or rainfall if a qualified biologist determines that bats are likely to still be active based on seasonal conditions. Trees shall 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 shall be removed by a tree cutter using chainsaws only, under the supervision of a qualified biologist who has demonstrable experience with supervising tree removal for bats using this technique. Limbs with cavities, crevices and deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. On the second day, the entire tree shall be removed.
- b. If removal of bat habitat trees must occur 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 of all potential bat habitat trees within 14 days of project initiation and/or removal to determine absence/presence of 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 Conservation Division and CDFW for review and acceptance prior to commencement of work. If bats are not present, removal can proceed without using the two-phased removal method. If bats are found to be present, the qualified biologist shall determine if a maternity colony of winter torpor bats are present. If roosting bats are present but there are no maternity colonies or winter torpor bats, the tree shall be removed using the two-phased removal method outlined in Measure a., above. If the qualified biologist determines that maternity colonies or winter torpor bats are present, or they cannot confidently determine absence of maternity colonies or winter torpor bats, then tree removal shall be delayed until during the seasonal periods of bat activity outlined in Measure a. Irrespective of time of year, once felled, the focal trees should remain on the ground for at least 24 hours prior to chipping, off-site removal or other processing to allow any bats present within the felled trees to escape.

With respect to special-status bird and raptor species, as previously indicated, no special-status bird or raptor species or nest structures or other notable elements were observed during the surveys conducted by WRA. However, habitat that could support special-status bird species, in particular woodlands and associated trees that could be utilized for nesting, is found in the vicinity and

occurs within or adjacent to the project area. In addition, a variety of other non-status bird species with baseline protections under the MBTA and CFGC may use vegetation within the project areas for nesting. Noise and disturbance generated through vegetation removal and land preparation have the potential to affect special-status bird species that may subsequently move into the area, potentially resulting in direct mortality, nest abandonment or loss and death of young, and loss of reproductive potential at active nests or roosts, which is considered a potentially significant direct and indirect impact to special-status species.

To reduce potentially direct and indirect significant impacts to special-status and protected bird species as a result of the project to a less than significant level, **Mitigation Measure BR-2** would be implemented to include a preconstruction nesting bird survey and measures to avoid any nests with an exclusion buffer.

Mitigation Measure BR-2: The owner/permittee shall revise Erosion Control Plan #P21-00086-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5 and the California Endangered Species Act found in Fish and Game Code Section 2050 et seq.:

- a. For earth-disturbing activities occurring between February 1 and August 31, (which coincides with the grading season of April 1 through September 15 – NCC Section 18.108.027(C), and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with potential to occur at the project site) shall conduct preconstruction surveys for nesting birds and raptors within all suitable habitat in the project area, and within a minimum of 500 feet of all project areas. The preconstruction survey shall be conducted no earlier than 7 days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 7 days from the survey date, surveys shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
- b. After commencement of work, if there is a period of no work activity of 5 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- c. In the event that nesting birds are found, a qualified biologist shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist. Additionally, a qualified biologist shall monitor all active nests each day during construction for the first week, and weekly thereafter, to ensure that the exclusion buffers are adequate and that construction activities are not causing nest-disturbance. If the qualified biologist observes birds displaying potential nest-disturbance behavior, the qualified biologist shall cease all work in the vicinity of the nest and CDFW shall be consulted about appropriate avoidance and minimization measures for nesting birds prior to construction activities resuming. In this event, construction activities shall not resume without CDFW's written approval.
- e. 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) shall be prohibited.

Further, to facilitate up-to-date database for special-status wildlife and plant communities, the following condition of approval shall be implemented upon completion of Mitigation Measures BR-1 and BR-2:

Wildlife Survey Reporting – Condition of Approval – The Owner/Permittee shall use its best efforts to submit any reports of special-status species and natural communities detected during project pre-construction surveys to the California Natural Diversity Database.

- b-c. The project site contains coast live oak woodland, wetlands and an ephemeral stream, all of which are considered sensitive habitats. There are no riparian habitats identified within the parcel. The oak woodland habitats are discussed in response to checklist item (e), below.

Seasonal wetlands are known from a variety of topographic positions and soil types where surface waters collect and flows are reduced, or subsurface waters approach the soil surface as a rising water table or seep. The project site contains approximately 1.41 acres of seasonal wetland, which falls entirely outside of the development area (WRA January 2021 – **Exhibit B-1**). The wetland presents as a seasonal swale, located east of Wild Horse Valley Road and between the proposed vineyard blocks. The wetland area

has been avoided by the project and provided with a minimum 50-foot setback consistent with NCC Section 18.108.026 (General provisions - Wetlands), and the following condition of approval would require protective construction fencing to ensure that project-related vehicles and activities avoid the wetland area. Less than significant impacts to the seasonal wetland are anticipated.

Wetland Protection – Condition of Approval: The wetland identified as a seasonal swale in the project Biological Resources Reconnaissance Report (WRA 2021) located east of Wild Horse Valley Road and between the proposed vineyard blocks 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. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete.

The project site contains one ephemeral drainage located outside of the development area. The stream drains towards the west from the coast live oak woodland directly adjacent to and uphill from the project area, and dissipates across into non-native grassland and in the seasonal wetland. The flows in the ephemeral drainages only run during and immediately following substantial precipitation. These drainages contain shallow, steep banks of fine sediments (clays, loams) and beds composed of a mix of fine sediments and small, loose cobble and gravel. The stream on the project site is considered sensitive natural resources and have been avoided with minimum 35-foot setbacks in accordance with NCC Section 18.108.025.

The project has been designed to provide setbacks from the stream and aquatic features consistent with code requirements, and to maintain existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soil loss or runoff as compared to existing conditions). Furthermore, project approval, if granted, would be subject to the following standard conditions to prevent the potential encroachment into stream setbacks required pursuant to Section 18.108.025. Implementation of the standard condition of approval for stream protection, below, would ensure that the stream is protected from construction and subsequent vineyard operations. Therefore, the proposed project would result in less than significant impacts in this regard.

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 stream 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 Conservation 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, outside of the proposed project activities areas. The protection fencing shall remain in place for the duration of project implementation.
 - All construction and related traffic will remain outside of the protective fencing on the existing road to the maximum extent practicable to ensure that the stream, buffer zones, and associated woodland habitat remains undisturbed.
- d. The proposed project involves the installation of two vineyard blocks totaling approximately 13.5 gross acres (11 net acres) across portions of three parcels comprising the project site. No other fencing currently exists on the site; the proposed project would install wildlife exclusion fencing around the entire project area, resulting in the enclosure of the two proposed vineyard blocks, the ephemeral stream and the seasonal wetland.

Wildlife nursery sites were not identified in the project site, there would be no impacts to wildlife nursery sites. The project site does not contain any designated Critical Habitat (USFWS 2020b) or Essential Fish Habitat (NMFS 2020); the stream is ephemeral with flows that are limited to approximately 502 linear feet before dissipating into upland grassland, and with very limited habitat complexity and connectivity; it has no potential to support anadromous fishes.

The project area is not located within a designated wildlife corridor as outlined by Napa County (2005); it is located within a mapped “Essential Connectivity Area” (Conservation Biology Institute, 2010, accessed August 2022). At the scale of landscape linkages, this tract provides connectivity between baylands of San Pablo Bay and areas from northern Napa County northward. The site is located within a much larger tract of lightly- to undeveloped and agricultural/viticultural lands within a rural portion of Napa County. At the landscape linkage scale, agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration, due to the relatively small project size within much larger undeveloped land.

At a more local scale, the project site provides connectivity between forest/woodland and chaparral habitat, and includes one of few meadows and wetlands within the property holdings. Common wildlife species presumably utilize the greater subject parcels to some

degree for movement at a local scale, and the project area is nearly surrounded by contiguous land covers with a greater degree of vegetative cover consisting of oak woodland and chaparral. The project parcel's wetland likely provides habitat for a variety of wildlife (as evident by the observation of recent wild pig activity within the project area and ephemeral stream setback by County staff during the May 2021 site visit), as it is the only wetland feature on the three parcels, outside of blue-line streams and associated habitat. The project, as proposed, would install wildlife exclusion fencing around the entirety of the project, including the stream and wetland, which would serve to cut off access by wildlife to the wetland habitat, to the potential detriment of the ecological function of the wetland and the special-status plant species habitat. This would be considered a potentially significant direct impact on wildlife access to habitat and potential indirect impact on special-status plants by removing potential wildlife grazing of the wetland area, which could result in competition due to overgrowth of annual non-native plants species. This would be inconsistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity.

Implementation of **Mitigation Measure BR-3** would require revisions to the wildlife exclusion fencing plan prior to project approval such that it is installed in a manner that encloses the vineyard blocks individually, thereby protecting wildlife access to and use of the wetland. With implementation of **Mitigation Measure BR-3**, project impacts in this regard would be reduced to a less than significant level.

Mitigation Measure BR-3 – Fencing: The Owner/Permittee shall revise the vineyard fencing plan associated with #P21-00086-ECPA prior to its approval to include the following components:

- a. New permanent wildlife exclusion fencing shall enclose each vineyard block individually, such that west-east access by wildlife to the wetland area and through the project site from west of Wild Horse Valley Road and into the uphill oak woodland is maintained.
 - b. New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
 - c. Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
 - Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P21-00086-ECPA as revised pursuant to this measure shall be strictly prohibited, and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.
- e. Based on the Biological Resources Reconnaissance Survey Report (WRA, 2021 – **Exhibit B-1** and **B-2**), the project parcels contain a total of 211.5 acres of oak woodland, which is considered to be a sensitive community by Napa County. Oak woodland is the most common land cover in the County occurring on approximately 167,000 acres (33% of the County's area). Approximately 733 acres of oak woodland or 0.5% of the total area of oak woodland in the County has been cleared for residential and agricultural purposes between 1993 and 2002 (Napa County Baseline Date Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 2005). While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

Coast live oak woodlands occur in the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County (Sawyer et al. 2009, CNPS 2020b). These woodlands are typically situated on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content (Sawyer et al. 2009) (WRA, 2021 – **Exhibit B-1**).

The proposed project would result in the removal of 2.6 acres of coast live oak woodland, including 1.5 acres on APN 033-130-046 (northern project parcel) of a total of 140.7 acres present, and 1.7 acres on APN 033-190-015 (southern project parcel) of a total of 58.7 acres present, resulting in 97% and 99% retention of oak woodlands on the parcels, respectively. There are no trees or oak woodland proposed for removal in the northwestern project parcel (APN 033-190-014).

The project site is located within the Lake Madigan Sensitive Domestic Water Supply Drainage. As such, pursuant to NCC Section 18.108.027, a minimum of 70% of the tree canopy and a minimum of 40% of the brush/shrub cover existing on the parcels within the Lake Madigan drainage in 1993 is required to be retained as part of the project. This code section allows two or more contiguous parcels held under common ownership to be considered combined and treated as one holding. As shown in Table 5, the combined total of tree canopy on the contiguous parcels is 100.9 acres, and the combined total of grass/brush cover is 180.1 acres based on the 1993 conditions. To achieve consistency with NCC Section 18.108.027(B), the combined parcels would be limited to 70.6 acres of tree canopy (70% of total) and 72 acres of grass/brush cover (40% of total). As shown in Table 5, the combined parcels would remove a total of 2.6 acres of tree canopy and 10.4 acres of grass/brush cover, resulting in retention of approximately 95% of tree canopy and

78% of grass/brush cover based on the 1993 conditions, which more than exceeds the retention requirements found in this code section.

As proposed, however, the project does not include vegetation preservation areas indicating the grass/brush cover that shall be retained to achieve consistency with NCC Section 18.108.027(B)(3), which requires that the property owner record a perpetual protective easement or perpetual deed restriction for each parcel that describes the amount of vegetation to be retained on each parcel. This would result in a potentially significant impact related to inconsistency with permanent retention of minimum vegetation requirements found in NCC Section 18.108.027(B). Implementation of **Mitigation Measure BR-4** would require that the owner/permittee record in a perpetual deed restriction or other form acceptable to County Counsel for each parcel the required minimum vegetation retention/preservation areas, which would reduce potential impacts to a less than significant level.

Table 5: Sensitive Domestic Water Supply Drainage Vegetation Retention Requirements

APN 033-130-001					
	1993 Conditions	Removed since 1993	Proposed to be Removed	Retained	Percent Retained
Trees	11.8 acres	-	1.3 acres	10.5 acres	89%
Brush/Grass	2.0 acres	-	1.7 acres	0.3 acres	15%
Improvements	-	-	-	-	-
Totals	13.8 acres	-	3.0 acres	-	-
APN 033-190-001					
	1993 Conditions	Removed since 1993	Proposed to be Removed	Retained	Percent Retained
Trees	89.1 acres	2.3 acres	1.3 acres	85.5 acres	96%
Brush/Grass	178.1 acres	28.9 acres	8.7 acres	140.5 acres	79%
Improvements	56.0 acres	-	0.1 acres	-	-
Totals	323.2 acres	31.2 acres	10.1 acres	-	-
Combined Parcels					
	1993 Conditions	Removed since 1993	Proposed to be Removed	Retained	Percent Retained
Trees	100.9 acres	2.3 acres	2.6 acres	96.0 acres	95%
Brush/Grass	180.1 acres	28.9 acres	10.4 acres	140.8 acres	78%
Improvements	56.0 acres	-	0.1 acres	-	-
Totals	337.0 acres	31.2 acres	13.1 acres	-	-

Source: Applied Civil Engineering, 2021 (Exhibit A)

Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization and soil protection, and species diversity. General Plan Conservation Element Policy CON-24(C)¹¹ specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible, replacement of oak woodland at a 2:1 ratio is required. Removal of more than 1 acre of oak woodland for every 2 acres preserved would be considered a significant impact. Following project implementation (if approved), the project parcel to the north (APN 033-130-046) would contain 139.2 acres of oak woodland, and the project parcel to the south (APN 033-190-015) would contain 57 total acres of oak woodland. The resulting retention of oak woodland would far exceed the 2:1 oak woodland preservation/avoidance ratio found in Policy CON-24, resulting in a less than significant impact in regards to consistency with the General Plan related to oak woodlands.

NCC Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the AW zoning district retain 70% of the vegetation canopy cover¹² based on the on-site vegetation canopy cover present on June 16, 2016. Since the parcels burned during the 2017 Atlas Fire, the project is therefore subject to Napa County Code (NCC) Section 8.80.130 (Conservation Regulations for fire-damaged properties), which requires the Vegetation Retention Requirements analysis (per NCC Section 18.108.020(c)) be based on the conditions as configured on the property on June 19, 2018 aerial. As stated above, the project proposes to retain approximately 99% of the oak woodland (i.e., vegetation canopy cover) on the northern parcel (APN 033-130-046) and approximately 97% of the oak woodland on the southern parcel (APN 033-130-015); therefore, the project is consistent with the

¹¹ Policy CON 24(c): 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 limited in distribution shall be avoided to the maximum extent feasible.

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

vegetation canopy cover retention requirements required by NCC Section 18.108.020(C) and less than significant impacts would result.

Regarding vegetation canopy cover removal mitigation and preservation, NCC Section 18.108.020(D) (Vegetation Removal Mitigation) requires that the removal of any vegetation canopy cover in the AW zoning district be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. NCC Section 18.108.020(D) prioritizes where the mitigation replacement and preservation areas should be allowed, whereby the first priority is for onsite replacement and/or preservation areas that generally occur on slopes less than 30% and outside of stream and wetland setbacks; if this cannot be reasonably accomplished, then onsite replacement and/or preservation may occur on slopes up to 50%, in areas that result in the highest biological and water quality protections, etc. NCC Section 18.108.020(E) (Preserved Vegetation Canopy Cover) requires preserved vegetation canopy cover to be protected (or otherwise enforceably restricted) through a perpetual protective easement or deed restriction preserving and conserving the preserved vegetation canopy cover. To be consistent with this section of the Conservation Regulations, the project would be required to permanently preserve oak woodland on land with slopes of less than 30% (or 50%, if 30% is not achievable) and outside of stream setbacks as follows: a minimum of 4.5 acres of oak woodland on the northern parcel (APN 033-130-046), and a minimum of 5.1 acres on the southern parcel (APN 033-130-046). As proposed, the project would include an oak woodland preservation area that meets these minimum numbers on the relevant project parcels, generally located east of and uphill from the project site and on land with slopes ranging from 15% up to 50% (**Exhibit B-3**). However, as proposed, the preservation area is located on land partially located within the ephemeral stream setback, which would not be consistent with the intention of NCC Section 18.108.020(D). Additionally, as proposed, the project would not be consistent with NCC Section 18.108.020(E), which requires that preserved vegetation canopy cover area be enforceably restricted with a perpetual protective easement or perpetual deed restriction. This would be considered a potentially significant impact.

Implementation of **Mitigation Measure BR-4** would require #P21-00086-ECPA be revised, prior to approval, to include Vegetation Preservation Areas that would be enforceably restricted through a perpetual protective easement or deed restriction, to include Oak Woodland Preservation Areas totaling 9.6 acres, with a minimum of 4.5 acres protected on the northern parcel (APN 033-130-046) and a minimum of 5.1 acres preserved on the southern parcel (APN 033-130-015) on land with slopes less than 50% and outside of stream setbacks, Tree Canopy Preservation Areas that total a minimum of 70.6 acres (or 70% of the total on the parcels) and Grass/Brush Preservation Areas that total a minimum of 72 acres, resulting in consistency with the retention requirements found in NCC Sections 18.108.020(D) and Section 18.108.027(B). Therefore, with implementation of **Mitigation Measure BR-4**, the project, if approved, would result in less than significant impacts related to oak woodland.

Mitigation Measure BR-4: The owner/permittee, prior to approval, shall revise #P21-00086-ECPA to include the following provisions to reduce potential impacts to oak woodland and associated vegetation cover, and to achieve consistency with the NCC Conservation Regulations Chapter 18.108:

- a. Vegetation Preservation Areas located outside of the boundaries of the existing and proposed developed area shall be designated as such in a perpetual deed restriction or conservation mitigation easement or other means of permanent protection, as listed below. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including, but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The Owner/Permittee shall record the deed restriction or conservation mitigation easement prior to construction or within 90 days of project approval, whichever comes first. The areas to be preserved shall be of like kind and quality to the vegetation types being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation areas should be selected in a manner that minimizes fragmentation of habitat within the project property, protects special-status species, and The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.
 - i) Oak Woodland Preservation Area totaling 4.5 acres on APN 033-130-046 and 5.1 acres on APN 033-130-015 of vegetation cover canopy located on portions of the property that are not already subject to development restrictions (i.e., within creek setbacks or on slopes over 30-50%), consistent with NCC Section 18.108.020(D).
 - ii) Tree Canopy Preservation Areas that include, at minimum, a total of 70.6 acres on the contiguous parcels that contribute to the 70% tree canopy retention requirement found in NCC Section 18.108.027(B). The Tree Canopy and Oak Woodland Preservation Areas may overlap.
 - iii) Grass/Brush Preservation Areas that include, at minimum, a total of 72 acres on the contiguous parcels that contribute to the 40% grass/brush cover retention requirement found in NCC Section 18.108.027(B).

- 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 development area (typically within approximately 50-feet of the development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the vineyard conversion area.
- d. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P21-00086-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for County review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.
- f. There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other similar plans applicable to the project site. Therefore, no impact would occur.

V. CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Archeological sensitive areas and Archeological sites layers:

- Archaeological Resource Service, January 25, 2020, A Cultural Resources Evaluation of the Kenzo Estate, Phase 9 Vineyard Erosion Control Plan, 8999 Wild Horse Valley Road, Napa County, California.

Archaeological Resource Services conducted an cultural resources evaluation of the project site which included a check of information on file with the California Historical Resources Information System Northwest Information Center to determine presence or absence of previously recorded historic or prehistoric cultural resources; a check of relevant historic references to determine the potential for historic era archaeological deposits or structure; and a surface reconnaissance survey of approximately 13.1 acres on the project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits within the proposed vineyard blocks.

- a-b. The cultural resources study (Archaeological Resource Services, January 2020) identified no cultural resources within the development area.

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

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

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

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

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

Discussion

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

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

Once construction is complete, equipment and energy use would be slightly higher than existing levels and the proposed project would not include any unusual maintenance activities that would cause a significant difference in energy efficiency compared to the

surrounding developed land uses. Thus, the proposed project would not result in wasteful, inefficient, or unnecessary energy use. This impact would be less than significant.

- b. The transportation sector is a major end-user of energy in California, accounting for approximately 39.4% of total statewide energy consumption in 2019 (U.S. Energy Information Administration 2021). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California’s 30 million vehicles consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 - <https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan>).

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

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Be located on expansive soil creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development, but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.
- i) Numerous fault traces associated with the Green Valley Fault are mapped within the project vicinity. The project site is located on a fault line that is identified as uncertain on the Napa County GIS faults layer. The project is not located within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. The closest active fault (Green Valley Fault) to the project site is located 0.5-mile east of the project site (Napa County GIS faults and earthquake layers). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological Society, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.
 - iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having low liquefaction potential (Napa County, 2009; Napa County GIS liquefaction layer). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
 - iv) Landslides are present on all three of the project parcels, with several in the vicinity of Wild Horse Valley Road and four probable debris slides located within proposed Block 2. A Landslide Hazard Evaluation was prepared for the proposed project (O’Connor Environmental, Inc., April 27, 2020 – **Exhibit C**). The evaluation resulted in no evidence of instability or shallow landslides (debris slides or shallow rotational slumps) within or around either of the proposed vineyard blocks. The landslides near Wild Horse Valley Road presented a low hazard to the road, and of the five areas where landslides are mapped on the southern parcel, no evidence of existing or historic slope movement was observed. The Landslide Hazard Evaluation concluded that the proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. Vineyard development is not expected to affect the stability of previously mapped or newly identified landslide features in the area; therefore, a less than significant impact is anticipated (also see question (c) below for additional discussion regarding slope stability and landslides).
- b. The project site is underlain by three soil mapping units: Hambright rock-outcrop complex with 30 to 50% slopes (Soil Type 152), Perkins gravelly loam with 5 to 9% slopes (Soil Type 169) and Sobrante loam with 30 to 50% slopes (Soil Type 179). Installation and implementation of the project would involve vegetation removal and earthmoving activities within the proposed vineyard areas and to install rock filled bench retention structure. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas) and Section 18.108.027 (C) (Sensitive Domestic Water Supply Drainages), earthmoving activities cannot be performed between September 1 and April 1. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through cover crops with vegetative cover densities of at least 80% and installation of the rock-filled bench retention structure as specified in the ECP. Herbicide used to control weeds within the vineyard blocks would be limited to spraying post-emergent herbicide in an 18-inch maximum strip spray to control weeds at the bases of the vines. The cover

crop would be managed each year such that any avenues which have less than 80% vegetative cover would be reseeded and mulched until adequate cover is achieved. The cover crop would provide the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by David Steiner (**Exhibit D**), the proposed conversion of approximately 13.5 acres of vegetation to vineyard and vineyard avenues is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 5**). Under existing conditions, the annual soil loss is anticipated to average 65 tons per year across the development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 20 tons per year, or a reduction of approximately 69% as compared to existing conditions.

Table 5 – USLE Soil Loss Analysis

Vineyard Block	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
1	55.07	12.87	-42.2	-77%
2	9.67	7.15	-2.52	-26%
Total	64.74	20.02	-44.72	-69%

Source: David Steiner, June 15, 2021, Soil Loss Analysis (**Exhibit D**)

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

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

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval: The following conditions shall be incorporated by referenced into Erosion Control Plan #P21-00086-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- **Permanent Erosion and Runoff Control Measures:** Pursuant to NCC Section 18.108.070(L) and Section 18.108.027(C) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to rock-filled bench retention structure and permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed and/or achieved no later than September 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P21-00086-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- **Cover Crop Management/Practice:** The permanent cover crop shall be managed each year such that any areas which have less than 80% vegetative cover shall be reseeded and mulched until adequate coverage is achieved, with an alternate row tilled farming practice. The permanent cover crop areas will be reseeded every two to three years or more frequently as needed to maintain the required cover percentage. Tilled rows will be reseeded and mulched with straw in the Fall. Straw mulching and/or compost will be applied each Fall as needed to achieve the required coverage level. Vineyard avenues shall not be tilled. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

within the vineyard, and only larger rocks that surface would be removed and used in erosion control measures (e.g., rock energy dissipater, rock filled bench). 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 used in the USLE calculations would remain unchanged (Oster, 2008).

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

- c. As discussed above, the development area is not in an area prone to liquefaction, but it is located in an area prone to landslides. The Landslide Hazard Evaluation concluded that the proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. Vineyard development is not expected to affect the stability of previously mapped or newly identified landslide features in the area. proposed project would result in less significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.
- d. Soils within the development area consist of Hambright rock-outcrop complex with 30 to 50% slopes (Soil Type 152), Perkins gravelly loam with 5 to 9% slopes (Soil Type 169) and Sobrante loam with 30 to 50% slopes (Soil Type 179). These soils exhibit low to moderate shrink-swell potential (USDA, 1978). The Napa County Soil Survey describes the Hambright rock-outcrop complex as material weathered from basic rock, with cobbles, stones, rhyolitic masses, or outcrops, and rapid to very rapid runoff and a high risk of erosion. The Soil Survey describes Perkins gravelly loam as having medium runoff and slight hazard of erosion, and the Sobrante loam on uplands as having rapid runoff and moderate to high hazard of erosion. No structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be no impacts associated with expansive soils.
- e. The proposed project involves the development of a vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.
- f. The proposed project would not destroy any unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

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

- In the event that a discovery of a breas, true, and/or trace fossils are discovered during ground disturbing activities, all work within 100 feet of the 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.

VIII.	GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Discussion

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).¹³ The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) *62 Cal. 4th 204). There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions, which represent the vast majority of project GHG emissions.

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

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as the part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at <https://www.countyofnapa.org/589/Planning-Building-Environmental-Services>. The County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

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

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

The County maintains a set of Transportation Impact Study Guidelines (TIS Guidelines) that define situations and project characteristics that

¹³ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>, April 2022

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

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

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

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

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

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO₂), methane, ozone, and the fluorocarbons, which contribute to climate change. CO₂ is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. In this case CO₂ is used as the reference atom/compound to obtain atmospheric carbon CO₂ effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁴

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

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

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

Construction Emissions:

¹⁴ "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO₂. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁵ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 13.5 gross acres of vineyard development would be approximately 126.9 MT CO_{2e} (13.5 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 13.5 acres of existing vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the GHG Emissions Checklist and associated carbon stock factors developed as part of the 2018 Draft CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2018 Draft CAP carbon stocks and the acreages of vegetation types within the development area, total carbon stocks for the development area are estimated to be approximately 318.2 MT C or approximately 1,167.7 MT CO_{2e} (**Table 6**).

Table 6 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Storage/Stock per Acre (MT C/acre) ¹	Total Carbon Storage (MT)	Total Carbon Storage in MT CO _{2e}
Grasslands	9.9	1.4	13.9	50.9
Oak Woodland	3.2	95.1	304.3	1,116.8
Total			318.2	1,167.7

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

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20 to 25% while others have suggested 50%.¹⁶ Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 1,081.3 MT CO_{2e} (**Table 7**).

Table 7 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Loss/Emission per Acre (MT C/acre) ¹	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO _{2e}
Grasslands	9.9	0.8	7.9	29.1
Oak Woodland	3.2	89.6	286.7	1,052.2
Total			294.6	1,081.3

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

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor it is anticipated that Operational Equipment Emissions associated with the proposed 13.5-acre agricultural development would be approximately 9 MT CO_{2e} (13.5 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 CO₂ acre per year, while grasslands, shrublands and developed are essentially zero. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 1.92 MT C per year or 7 MT CO_{2e} per year.¹⁷

¹⁵ As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.
¹⁶ Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.
¹⁷ 9.9 acres of grasslands times 0.057 MT C = 0.56 MT C, and 3.2 acres oak woodland times 0.425 MT C = 1.36 MT C, totaling 1.92 MT C

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

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 1,208 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 16 MT CO_{2e} per year (Table 8).

Table 8 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of CO _{2e}		Annual Ongoing Emissions in Metric Tons of CO _{2e}	
Source	Quantity	Source	Quantity
Vehicles and Equipment	126.9	Vehicles and Equipment	9
Vegetation and Soil	1,081.3	Loss of Sequestration	7
Total	1,208.2	Total	16

Source: Napa County Conservation Division, November 2018

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 1,208.2 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, projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the proposed project or its site. Further, the BAAQMD update to the thresholds of significance do not include construction-related climate impact thresholds (April 2022). GHG emissions from construction represent a very small portion of a project’s lifetime GHG emissions, and the updated thresholds for land use projects were designed to address operational GHG emissions, which represent the vast majority of project GHG emissions.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.11% of the vineyard development anticipated in the General Plan EIR. The proposed project also contains measures to reduce and/or offset emissions from vineyard development and vineyard operations such as maintaining a permanent no-till cover crop density of a minimum 80%, vegetated vineyard avenues, and the maintenance and establishment of grape vines. These measures, in conjunction with the Air Quality conditions of approval (detailed in **Section III [Air Quality]**), would further reduce potential GHG air quality impacts associated with construction and ongoing operation of the proposed project. For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a “considerable” contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 16 MT CO_{2e} per year. As stated above, the updated BAAQMD thresholds of significance for land use projects are qualitative, with no “bright-line” (quantitative) level below which to mitigate. Projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal. 4th 204). As stated in **Section IV, Biological Resources**, the proposed project would result in the removal of approximately 3.2 acres of oak woodland tree canopy, and would retain approximately 97%, 99% and 100% of the tree canopy on the three project parcels. With implementation of **Mitigation Measure BR-4**, the project would result in the permanent preservation of approximately 4.5 acres on APN 033-130-046 and 5.1 acres on APN 033-130-015 of vegetation cover canopy located on developable land (i.e., outside of stream setbacks and on land with slopes less than 30%) pursuant to the 3:1 canopy cover preservation requirements found in NCC Section 18.108.020(D). Therefore, the loss in carbon sequestration from the proposed removal of trees is more than offset after incorporation of **Mitigation Measure BR-4**, by permanently protecting from development three times the amount of lost carbon sequestration due to tree removal.

Further, as stated above, per the OPR Technical Advisory, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact. As detailed in **Section XVII (Transportation)**, harvest would generate up to approximately 10 to 20 one-way worker trips for approximately 30 to 60 days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 28 one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less than significant impacts related to operational GHG emissions are anticipated.

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

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

Discussion

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

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

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

Chemicals for vineyard operation would be stored offsite at the vineyard manager's headquarters and would be brought onsite for immediate use via overhead fill at the northwestern corner of Block 1 near Wild Horse Valley Road and on the southwestern portion of Block 2 adjacent to the existing access road east of Wild Horse Valley Road (**Exhibit A**). Fertilizers would be applied up to three times a year to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vinerows for weed management. Project staging areas would be located within proposed clearing limits.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) the proposed project would maintain buffers of at least 50 feet from potential wetlands; ii) the proposed project would provide setbacks buffers of 35 feet to ephemeral streams in conformance with code provisions; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions of approval that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. Less than significant impacts are anticipated.

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

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

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

- c. The closest school (Vichy Elementary) is located approximately 3 miles west of the development area in the City of Napa (Napa County GIS, Schools Layer). There are no schools within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facilities [Cortese List] layer). Therefore, no impact would occur.
- e. The closest public airport to the project site is the Pope Valley Airport, located approximately 12 miles northeast of the development. 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, impacts would be less than significant.
- f. During construction, up to 20 workers would be visiting the project site on a temporary basis to implement the proposed project, and up to 20 workers on a seasonal basis for subsequent vineyard operations. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and the impact would be less than significant.
- g. No structures are proposed as part of the project. The project site is located in an area identified in a high fire severity zone (CALFIRE 2007 - <https://egis.fire.ca.gov/FHSZ/>). The risk of fire in vineyards is low due to limited amount of fuel, combustibles, and

ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyards results in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and the impact would be less than significant.

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

Discussion

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

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well (or approval of an alteration to an existing well) in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by

a GSP, or that it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. Because the project contains an existing well, which is not being altered, Executive Order N-7-22 does not apply.

On March 8, 2022 and August 9, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel's groundwater allocation to 0.3 acre-feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. Because the parcel is located outside of the GSA Subbasin, a parcel-specific Water Availability Analysis was performed. To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways, the County's WAA guidance requires applicants to perform a Tier 3 analysis for new or replacement wells, or discretionary projects that would result in an increase in groundwater demand on existing wells that are located within 1,500 feet of designated "Significant Streams."¹⁸ The project site is located more than 3,800 feet from a designated "Significant Stream;" therefore, a Tier 3 analysis was not warranted.

There are two blue-line streams located on the subject parcels, as listed on the National Wetlands Inventory (NWI; USFWS 2020a). One is an unnamed tributary to Wooden Valley Creek located on APN 033-130-046. At the closest point, this stream is located approximately 1,100 feet northeast of the project area. The stream is located on the opposite side of a ridge from the proposed project area. The second blue-line stream located on the subject property is Wild Horse Creek, located on APN 033-190-015. At the closest point, this stream is located approximately 460 feet southwest of the proposed project area. There is a seasonal wetland and ephemeral stream located in between the two proposed vineyard blocks which have the appropriate setbacks (35 feet for ephemeral drainages and 50 feet for wetland), determined by slope as outlined in NCC Section 18.108.025. All watersheds eventually drain to an unnamed blue-line stream that drains to Lake Madigan south of the property.

The project site is located in the Lake Madigan subwatershed of the Suisun Creek watershed. Lake Madigan overflows into Green Valley Creek, and ultimately connects to the Suisun watershed and the Suisun Bay region of the Sacramento River and San Francisco Bay. Steelhead trout, a federally listed threatened species, have been found in the three main creeks of the Suisun watershed, including Suisun Creek and is named a primary "anchor" watersheds with essential habitat for steelhead trout in the Bay Area (CEMAR 2007)¹⁹ Suisun Creek and Suisun Bay are listed as impaired water bodies for dissolved oxygen and temperature (Suisun Creek) and for chlordane, DDT, dieldrin, dioxin and furan compounds, invasive species, mercury, PCBs and selenium (Suisun Bay) according to Section 303(d) list of impaired water bodies for the State by the San Francisco Bay Regional Water Quality Control Board.

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

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P21-00086-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

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

A Water Availability Analyses Memorandum was prepared in order to determine the effects of the increase in water demand from the proposed project on the project site (O'Connor Environmental, Inc., November 2019/Revised October 2021 – **Exhibit E**). The project site is located outside of the 1,500-foot buffer from a designated Significant Stream; therefore, a Tier 3 water availability analysis was not warranted.

Water demands for the existing onsite developments (i.e., two primary residences on APN 033-190-015, an uncovered pool, and associated drought-tolerant landscaping) have historically been met via the residential well, located outside of the project recharge area. The total existing groundwater demand is estimated at 1.64 AF/year for the project site (**Table 9**).

¹⁸ Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-Sustainability. The "Significant_Streams" and "Significant_Streams_1500ft_buffer" GIS layers are published as publicly-available open data through the County's ArcGIS Online Account.

¹⁹ www.napawatersheds.org

Typically, the annual irrigation season ranges from late May to September. Water use for frost protection is not proposed. The proposed project would need approximately 5.5 AF/year of groundwater to irrigate the approximately 11 net acres of new vineyard. After full development (including the existing onsite uses and the proposed project), total groundwater use would be approximately 7.14 AF/year (**Table 9**).

Table 9 – Pre- and Post-Project Site Groundwater Use

Water Use Type	Pre-Project Site Water Use (AF/year)	Post-Project Site Water Use (AF/year)
Existing Residential Uses (2 primary residence, 1 pool, landscaping)	1.64	1.64
Vineyard	0.0	5.5
Total	1.64	7.14

Source: O'Connor Environmental, Inc., October 2021 – Exhibit E

Groundwater Recharge: Long-term average groundwater recharge within the project recharge area and on the three project parcels was estimated using a Soil Water Balance model. Groundwater recharge was simulated for two water years: Water Year 2010 represents the average year conditions because the annual precipitation totals across most of Napa County were close to their long-term 30-year averages, and Water Year 2014 represents drought conditions because annual precipitation totals across most of Napa County were between 41% and 73% of long-term 30-year averages. During Water Year 2010, precipitation averaged 33.7 inches across the project recharge area and actual evapotranspiration (AET) averaged 15.4 inches. Simulated groundwater recharge varied from 7.0 to 12.6 inches across the recharge area, with a spatial average of 9.4 inches. During Water Year 2014, precipitation averaged 20.8 inches across the project recharge area and AET averaged 13.0 inches. Simulated groundwater recharge varied from approximately 2.4 to 9.0 inches across the recharge area with a spatial average of 5.3 inches.

Groundwater recharge estimates can also be expressed as a volume by multiplying the estimated recharge rate by a representative area. For the 40-acre project recharge area, these calculations yield an estimated total recharge of 31.3 AF/y for Water Year 2010 and 17.7 AF/y during Water Year 2014. For the three project parcels, which have a combined area of 359 acres, these calculations yield an estimated total recharge of 212.4 AF/y of recharge for Water Year 2010 and 86.8 AF/y in Water Year 2014. The total proposed groundwater use for the project recharge area is estimated to be 7.1 AF/y on the project parcels. Groundwater use in the project recharge area is equivalent to 18% of the estimated average WY 2010 groundwater recharge of 31.3 AF/y and 31% of the estimated WY 2014 of 17.7 AF/yr. Water use on the three project parcels is equivalent to 3% of the estimated recharge occurring on the project parcels during average water years (WY 2010) and 8% of the estimated recharge during dry water years (WY 2014).

County practice currently utilizes the PRISM Climate Group data for the 10 most recent years (Water Year [WY] 2012 through WY 2021) to analyze potential recharge on a property, as this data provides a more clear picture of recent precipitation trends in the context of the ongoing drought experienced in the region. The 10-year PRISM data for the project parcels shows an average of approximately 24.7 inches of precipitation (Napa County GIS Avg. Rainfall – 10yr [WY2012_2021] PRISM layer), which equates to an approximate 26.7% reduction in precipitation compared to the 30-year average precipitation data (33.7 inches) detailed above. It is anticipated that the estimated annual groundwater recharge volume would be reduced proportionally with the reduction in annual precipitation estimate; as such, the estimated annual groundwater recharge volume for the 40-acre project recharge area would be reduced from 31.3 AF/y to 22.9 AF/y and for the three project parcels, from 212.4 AF/y to 155.7 AF/y. This estimated groundwater recharge allocation is well above the water demand resulting from existing and proposed uses (7.1 AF/y) on this holding, or 31% of the estimated recharge in the 40-acre recharge area and 4.6% of the estimated recharge on the three project parcels. Therefore, the project is unlikely to result in declines in groundwater elevations or depletion of groundwater resources over time.

There are no neighboring wells within 500 feet of either of the wells (the project well and the residential well) on the three project parcels; as such a Tier 2 well interference analysis was not required, given that all non-project wells are located greater than 500-feet from the project well.

Considering: i) anticipated annual water use of the project site for existing and proposed use of approximately 7.1 AF/year is below the project site's anticipated annual groundwater recharge rate of approximately 22.9 AF/y in the 40-acre project recharge area and of 155.7 AF/y for the three project parcels; ii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and iii) incorporation of the standard groundwater management condition of approval below to reduce potential impacts associated with groundwater use, the proposed project (if approved) would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Groundwater Management, Wells – Conditions of Approval:

The owner/permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data shall be provided to the County, 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 PBES Director determines that such data could be useful in supporting the County's groundwater monitoring program. The project well shall be made available for inclusion in the groundwater monitoring network if the PBES Director determines that the well could be useful in supporting the program.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Erosion Control Plant #P21-00086-ECPA would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the owner/permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Code and to protect public health, safety, and welfare.

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

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

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

A Hydrology Report and Addendum for the proposed project were prepared by David A. Steiner (Steiner, January 2020 and November 2022 - **Exhibits F-1** and **F-2**). The development area is contained within one watershed, dominated by a wooded ridge running the length of its east side, which was burned by the 2017 fire, and also includes a fallow or barren area in the southern half, as well as the 13-acre former pasture.

The Hydrology Report utilized the WinTR-55 based on USDA Technical Release 55, Small Watershed Hydrology, which resulted in an initial increase in post-project peak flow (0.72 cfs for 2-year, 24-hour storm and 0.99 cfs for 100-year, 24-hour storm). To offset the modeled flow increases, the project proposes to construction of a storage structure (i.e., rock-filled bench) designed with sufficient capacity to increase the time of concentration (Tc), thereby reducing post-project peak flow to pre-project levels. Peak flows of larger, less frequent storms are many times those of smaller, more frequent storms, but the smaller storms require long Tc extensions to achieve pre-project peak flow parity. To assure adequacy of the designed rock-filled bench, hypothetical Tc increases sufficient to achieve peak flow parity were manually entered into both 2-year and 100-year storm models, and the design capacity of the rock-filled bench was based on the requirements of the greater of the two. The increase in Tc with the rock-filled bench compensates for the post-project increase in flow, resulting in no net increase in peak flow for all storms modeled. (**Table 10**)

Table 10 –USDA Technical Release 55 (WinTR-55) Results: Runoff Rates

	Runoff (cfs)			
	2-year	10-year	50-year	100-year
Main Watershed - Peak Flow				
Pre-project conditions	15.23	32.29	50.84	58.77
Post-project conditions	15.95	33.23	51.82	59.76
Change (cfs)	0.72	0.94	0.98	0.99
Change (%)	4.7%	2.9%	1.9%	1.7%
Sub-Area 1-A - Peak Flow – Tc Extended				
Post-project conditions Retention Bench Designed for 100-year Storm	14.94	32.2	50.77	58.76
Change (cfs)	-0.29	-0.09	-0.07	-0.01

Change (%)	-1.9%	-0.28%	-0.14%	-0.02%
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Source: Steiner, January 2020 and November 2022 (**Exhibits F-1 and F-2**)

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

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

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

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

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 44.72 tons per year, have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECP includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

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

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

from groundwater wells, watercourses, streams and any other water resource to avoid the potential risk of surface and groundwater contamination, whether or not such activities have occurred within these areas prior to this ECPA approval.

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

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

Discussion

- a. The project site is in a rural area of Napa County and the nearest established community is the city of Napa, approximately 3.8 miles west of the project site. The project site contains two residences and associated structures and landscaping on APN 033-190-015. The proposed vineyard and subsequent vineyard operations would be consistent with surrounding land uses and would not physically divide an established community and no impact would occur.
- b. The project site is zoned as Agricultural Watershed and is designated under the Napa County General Plan as AWOS. Surrounding land uses consist predominantly of undeveloped land, scattered rural residential, wineries, and agricultural land (vineyard). Surrounding parcels are zoned Agricultural Watershed in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils) and X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 44.72 tons per year and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils) and Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BR-1 and BR-2** is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. A Biological Resource Assessment was prepared for the proposed project (**Exhibit B-1 and B-2**). The proposed project as proposed would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the project site. With implementation of **Mitigation Measure BR-1 and BR-2**, impacts to bats and special-status and protected bird species would be avoided. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that, impacts to special-status species and their habitat can be avoided.
- With implementation of **Mitigation Measures BR-1, BR-2, BR-3 and BR-4**, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- With implementation of **Mitigation Measures BR-1, BR-2, and BR-3**, the proposed project is consistent with Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.

- The project site has wetlands within its boundaries; however, the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands, because the two proposed vineyard blocks avoid wetlands within the project site with a minimum 50-foot buffer.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With implementation of **Mitigation Measure BR-3**, wildlife access to the wetland and movement through the ephemeral stream and adjacent habitat would not be impaired.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development to be no greater than pre-project conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, with incorporation of the Permanent Erosion and Runoff Control Measures condition of approval, the proposed project would reduce soil loss and sedimentation, and result in no change to runoff.
- The proposed project is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The proposed project is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The proposed project is consistent with the General Plan land use designation of AWOS, and is therefore consistent with Policy AG/LU-20.

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

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Syar Napa Quarry, located approximately 5 miles southwest of the project site. Proposed site improvements and development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

XIII. NOISE. Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Generation of excessive groundborne vibration or groundborne noise levels?
- c) For a 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 approximately 3.8 miles east of the city of Napa. The surrounding parcels to the north and south of the project site are under the same ownership (Kenzo Estate, Inc.), and the parcels immediately east and west of the project site consisting of primarily undeveloped land, with some agriculture and rural residences. The nearest offsite residence (i.e., on parcels under separate ownership) are located approximately 2,100 feet from the development area to the southwest. Activities associated with installation of the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. **Table 11** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in Table 11, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 11 – Construction Equipment Noise Emission Levels

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

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

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

Table 12 – Estimated Distance to dBA Contours from Construction Activities¹

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

¹Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be approximately 50 dBA at the nearest existing offsite residence.

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 13** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 13 – Estimated Distance to dBA Contours from Farming Activities¹

Distance from Farming Source	Calculated Noise Level
50 feet	84 dBA

115 feet	75 dBA
175 feet	70 dBA
275 feet	65 dBA
400 feet	60 dBA
650 feet	55 dBA
1,000 feet	50 dBA

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately 50 dBA at the closest existing offsite residences.

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of approximately 50 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 development area as described above. Compliance with measures identified in the County's noise ordinance for construction-related noise, such as a limitation of hours of construction activity and muffling of equipment, would result in temporary less than significant noise and vibration impacts, and would result in no permanent increase in ambient noise levels in the vicinity of the proposed project in excess of County standards.

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

XIV. POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

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

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

Discussion

- a. While public services are currently provided to the project parcel, the proposed project does not include the construction of new 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 temporary workers would come from the existing labor pool in the local region and would not result in an increase in population over existing conditions. As a result, there would be no need to construct any new government facilities. Therefore, there would be no change in the demand for the listed services and amenities, and no impact would occur.

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

Discussion

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

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

Discussion

a-b. Currently, the development area contains pasture, wetland, and woodland. The development area is accessed from a private road (Wild Horse Valley) from Monticello Road to the north. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

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

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

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

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

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

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

The proposed project is expected to generate approximately 10 to 20 passenger vehicle/truck one-way trips per day during construction, over 90 days from April to October. Approximately 10 to 20 additional one-way truck trips would deliver and remove heavy equipment at the start and end of project construction. Typical construction equipment anticipated for construction includes a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles. Pruning would occur in February approximately 10 to 15 days of the year and is anticipated to require up to 10 workers, resulting in approximately 10 one-way trips per day during pruning. Weed control would occur in January through July under vines for two to four days and between April and August for two to three days and requiring three to four workers. Harvest would occur over three to ten days and is anticipated to require 12 to 14 workers and a 2-ton grape haul truck resulting in two additional one-way trips per day during harvest. Vehicular equipment for ongoing vineyard maintenance is anticipated to include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles, and ATVs. 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 4 a.m. and departing around 6 a.m.

As indicated above, the TIS Guidelines provide a screening criterion that could be used to determine whether a VMT analysis is warranted for small projects, which are defined as projects that would generate fewer than 110 trips per day and may generally be assumed to cause less-than-significant transportation impacts. As indicated above, construction of the proposed project would generate up to approximately six one-way worker trips per day, and periodically up to ten additional one-way truck trips per day. Harvest would generate up to approximately 12 one-way worker trips, and two one-way truck trips per day (resulting in up to 28 round trips per day) for approximately three days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 12 one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day. Additionally, daily trips associated with the project would be temporary and seasonal in nature, further supporting conformance and observance of this screening criterion.

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

- c. The proposed project would utilize the existing site access off Wild Horse Valley Road for project development. The proposed project does not include roadway improvements and/or modifications to Wild Horse Valley Road, or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the project site and other agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less than significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX, Hazards and Hazardous Materials**, for additional discussion related to emergency access.

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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 27, 2021. The County received a response letter from Yocha Dehe Wintun Nation dated June 11, 2021, indicating that the project area is located within the aboriginal territories of the Yocha Dehe Wintun Nation, that the Tribe has a cultural interest and authority in the proposed project area. The letter requested the cultural resources study and project information, which the County re-sent on June 15, 2021. On June 17, 2021, the County received a letter from Yocha Dehe Wintun Nation recommending inclusion of cultural monitors during initial ground disturbance, as well as cultural sensitivity training for any and all project personnel prior to project initiation. On June 13, 2022, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation. No further communication was received from the tribes from whom consultation was requested within the 30-day notification period. The County sent consultation closure notices to Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on June 13, 2022.

- a-b. As discussed in **Section V (Cultural Resources)** the proposed project’s cultural resources study (Archaeological Resource Service, January 2020), identified no cultural resources within the development area. Furthermore, no resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified or are anticipated in the development area. While the Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources, the notification from the Yocha Dehe Wintun Nation indicates that the proposed project may result in potentially significant impacts on Tribal cultural resources. To reduce potentially significant impacts, the project

Mitigation Measure TR-1: The Owner/Permittee shall revise Erosion Control Plan #P21-00086-ECPA prior to approval to include the following measures to minimize the potential to impact tribal cultural resources:

- a. Incorporate by reference the Yocha Dehe Wintun Nation’s Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation.
- b. Prior to commencement of vegetation removal and earth-moving activities pursuant to #P21-00086-ECPA, the Owner/Permittee shall provide documentation to Napa County demonstrating that they have engaged with Yocha Dehe Wintun Nation to provide cultural monitors and that cultural sensitivity training has been provided to site workers.
- c. Should the Owner/Permittee be unsuccessful in engaging with the Yocha Dehe Wintun Nation, the Owner/Permittee shall provide, for review and approval by Napa County, a Cultural Monitoring Plan prepared by a professional archaeologist certified by the Registry of Professional Archeologists (RPA). The Cultural Monitoring Plan shall outline monitoring requirements including but not limited to sensitivity training for site workers, find procedures, and monitoring documentation and reporting procedures.

As such, the proposed project, with incorporation of **Mitigation Measure TR-1** and the Cultural Resources conditions of approval, would result in less than significant impacts to Tribal Cultural Resources, including those that may be eligible for the California Historical Resources Information System or local register or cultural resources as defined in Public Resources Code Section 5024.1(c).

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

Discussion

- a. The proposed project would generate a minimal number of workers to the project site on a temporary basis, and vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region, and who would already be employed by vineyards on the property holdings already, 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 the existing onsite groundwater well would provide irrigation water to the vineyard. Irrigation pipelines would be located within existing roads, vineyard and vineyard areas and/or within proposed clearing limits.

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

- b. The 13.5 gross acres of vineyard (approximately 11 net acres) would be irrigated by an existing groundwater well located within the project site. The WAA (O'Connor Environmental Inc., 2021 – **Exhibit H**) concluded that, after full development, water use for the project parcels is estimated to be approximately 7.1 AF/y. Based on the site-specific recharge analysis, the project's estimated groundwater recharge allotment would be approximately 22.9 AF/y in the 40-acre project recharge area and 155.7 AF/y for all three project parcels. The estimated groundwater recharge allocation is well above the water demand resulting from existing and proposed uses (7.1 AF/y) on this holding, or 31% of the estimated recharge in the 40-acre recharge area and 4.6% of the estimated recharge on the three project parcels. Therefore, the project is unlikely to result in declines in groundwater elevations or depletion of groundwater resources over time; less than significant impacts on water supplies would result.
- c. Given the small number of workers that the proposed project would generate for construction and operation, wastewater generation by the proposed project would not be substantial enough to affect wastewater treatment capacity. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.
- d-e. Rock generated during vineyard preparation would be utilized onsite in the rock-filled bench, rip-rap energy dissipators and avenues and either returned to the fields or used to surface existing roads or for landscaping where needed. Solid waste generated during

construction activities (e.g., trash, discarded building materials, debris, etc.) would be negligible and would be cleared daily, or as necessary. Implementation of the proposed project would include pruning and harvesting activities 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 statutes and regulations. Therefore, no impact would occur.

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

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as High Fire Hazard Severity Zones (CALFIRE, 2007; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone). The project site is generally located in the Vaca Mountains, located east of the City of Napa and north of the Solano County line and Lake. Elevations within the project site range from approximately 1,555 to 1,645 feet above msl.

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

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

Discussion

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

- a. As discussed in this Initial Study, implementation of Erosion Control Plan #P21-00086-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment. Two special status plant species were identified on the project site (dwarf downingia and Lobb's aquatic buttercup), both of which occur within the wetland area, which is avoided through project design with a minimum 50-foot buffer and as a condition of approval.

Implementation of **Mitigation Measures BR-1** and **BR-2** would avoid potential direct and indirect impacts to bats as well as special-status or nesting birds and raptors by requiring a bat habitat assessment and tree removal protocol and pre-construction surveys for nesting birds and raptors, followed by exclusion buffers as necessary. Implementation of Mitigation Measure BR-3 would reduce potential impacts on wildlife access to the wetland and ephemeral stream and movement through the project site by requiring appropriate revisions to the fencing plan to enclose each vineyard block individually. As such, the proposed project would maintain wildlife access and movement, and cumulative impacts are anticipated to be less than significant. Given the relatively moderate size of the project site (relative to existing wildlife corridors), agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. While the proposed project (vineyard blocks) would result in portions of the site having reduced potential for on-site wildlife movement, the retention of ephemeral stream and wetland area blocks of vegetation with direct connectivity with similar habitats in the project site and on neighboring properties would allow for continued local wildlife movement. Additionally, the proposed wildlife exclusion fencing would be separated by existing habitats and streams which would allow for continued wildlife movement within and through the project area. As such, the proposed wildlife exclusion fencing would not introduce any new movement barriers to wildlife and cumulative impacts to wildlife movement are expected to be less than significant. The project area contains three ephemeral drainages and a seasonal wetland, all of which are outside of the development area. However, to reduce impacts on water quality within the watershed, the proposed project has been designed to avoid the drainages and wetland with minimum 35-foot setbacks in accordance with NCC Section 18.108.025. With incorporation of standard conditions of approval to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Following implementation of **Mitigation Measure BR-4**, oak woodland habitat would be preserved at a 3:1 ratio relative to the oak woodland proposed for removal, and would be permanently protected from development through a deed restriction or other means of permanent protection; cumulative impacts on oak woodland habitat are anticipated to be less than significant. Therefore, the proposed project as designed with the incorporation **Mitigation Measures BR-1** through **BR-4** and conditions of

approval, would have a less than significant potential to degrade the quality of the environment. Further, while no cultural resources were identified on the property by the project archaeologist (Archaeological Resource Service, 2020), implementation of **Mitigation Measure TR-1** would require the owner/permittee to provide cultural resource sensitivity training to all site workers and to engage with the Yocha Dehe Wintun Nation to develop a cultural resource monitoring plan to ensure that any potential resources discovered during earth-moving activities are handled appropriately; therefore, the project would result in less than significant impacts on resources significant to major periods of California history or prehistory.

- b. The project site is located in the Lake Madigan Drainage area, which flows into San Pablo Bay. The Lake Madigan Drainage area contains approximately 759.17 acres. In 1993, vineyard acreage within this drainage totaled approximately 43 acres, or 5.7% of the drainage. Since 1993 approximately 11.8 acres of additional vineyard (or 1.6% of the drainage) have been developed to vineyard, resulting in approximately 7.2% of the drainage (or approximately 54.8 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Lake Madigan Drainage, that approximately 393.23 acres (51.8% of the drainage) have the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 54.8 acres), results in a total potential build out of approximately 448 acres or approximately 59% of the drainage. The Potentially Productive Soils layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as slope, sun exposure, soil type, water availability, or economic factors.

Currently, there are no other pending Erosion Control Plans winery Use Permits in the Drainage. While it is not possible to precisely quantify the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Lake Madigan Drainage) over the last 28 years (1993-2021) were used to project an estimation of vineyard development for the next three to five years. Over the past 28 years within the Lake Madigan Drainage, approximately 0.4-acres of agriculture were developed per year (11.8 divided by 28). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 1.2 to 2 acres over the next three to five years within the Lake Madigan Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), 3:1 oak woodland replacement ratio, 70% tree canopy retention and 40% grass/brush retention requirements in sensitive domestic water supply drainages, and General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio, all of which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VIII:

The proposed project (#P21-00086-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended PM and equipment exhaust emissions. For construction-related dust impacts, the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in **Section III (Air Quality)** and shown in **Table 3** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 7 and 8**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop in avenues and an alternate-row till cover crop in the rows, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration,

would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

A project-specific Biological Resources Reconnaissance Surveys (WRA, 2021 - **Exhibit B**) was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the proposed project. The reconnaissance survey included database records searches to identify the presence or potential presence of special-status species within the project area. The database records searches included the CNDDDB, CNPS, and Napa County databases. As discussed in **Section IV (Biological Resources)**, wetlands were identified in the project site outside of the development area. Two special-status plant species are present within the project parcels, but are within the wetland area that is avoided by project design with a minimum 50-foot buffer. There were no special-status or protected animal species identified on site, however, there is the potential that bats and nesting birds could be present; with implementation of **Mitigation Measures BR-1** and **BR-2**, potential impacts on these species would be less than significant. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats. As described above, wildlife access to the wetland and ephemeral stream would be preserved following implementation of **Mitigation Measure BR-3**, which would require revisions to the fencing plan such that the vineyard blocks would be fenced individually, thus preserving access and movement by wildlife through the project area. Finally, oak woodland habitat would be permanently preserved from development at a 3:1 ratio, resulting in less than significant cumulative impacts.

Cultural and Tribal Resources – Sections V and XVIII:

The cultural resource reconnaissance survey (Archaeological Resource Services, 2020) identified no cultural resources in the development area. The Yocha Dehe Wintun Nation identified potential for impacts on Tribal cultural resources. With the implementation of **Mitigation Measure TR-1** and standard conditions to protect cultural and tribal cultural resources that may be discovered accidentally, less than significant cumulative impacts to cultural and tribal cultural resources are expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**).

Geology and Soils - Section VII:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 44.72 tons per year as compared to existing conditions (**Table 5**). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas, and installation of the rock-filled bench retention structure as specified in the ECP, and of straw wattles and water bars that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions, and would implement erosion and runoff control conditions of approval, the proposed project is not anticipated to contribute cumulatively to sediment production within the Lake Madigan watershed. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hazards and Hazardous Materials - Section IX:

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

Hydrology and Water Quality - Section X:

Water use calculations provided in the Water Availability Analyses Memorandum prepared by O'Connor Environmental Inc. (Revised October 2021 - **Exhibit D**) indicate that the proposed development consisting of approximately 11.0 net acres of planted vineyard would result in approximately 5.5 AF/year of additional groundwater use, compared to the approximately 1.64 AF/year used under current conditions, totaling approximately 7.1 AF/year (**Table 9**). The existing onsite water developments would continue to be supplied by the existing wells.

As discussed in **Section X.c (Hydrology and Water Quality)**, a Hydrologic Analysis utilizing the WinTR-55 method and an Addendum were prepared by David Steiner (January 2020 and November 2022 - **Exhibits F-1** and **F-2**), The WinTR-55

analysis resulted in an initial increase in post-project peak flow (0.72 cfs for 2-year, 24-hour storm and 0.99 cfs for 100-year, 24-hour storm). The project includes installation of a rock-filled bench to offset the modeled flow increases, which in an increase in time of concentration, and results in no-net increase in peak flows for all storms modeled. Therefore, no significant impacts due to changes in hydrology are expected.

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

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

Land Use and Planning - Section XI:

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

Proposed Project Impacts Found to be Less Than Significant

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form of heat lights or downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project does not conflict with any current zoning for agricultural or forestry use, nor does the proposed project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. The proposed project would not result in wasteful, inefficient, or unnecessary energy use, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets. There are no known mineral resource areas within the proposed project site or immediate vicinity. This project would generate noise levels that are considered normal and reasonable for agricultural activities and consistent with the County's "Right to Farm" Ordinance. The potential contribution to noise or vibration impacts is considered less than cumulatively considerable. Traffic related to construction and farm worker trips would not increase by a discernible amount and the relatively low and off-peak vehicle trips associated with the proposed project are considered less than cumulative considerable. The proposed project does not include the construction of structures that would result in population growth or displacement of people and would not adversely impact current or future public services, and would not require the need for utilities and service systems. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

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

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

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Exhibit B-2	Responses to Napa Comments on Biological Resources
Exhibit B-3	Oak Woodland Retention Analysis
Exhibit C	Landslide Hazard Evaluation
Exhibit D	Soil Loss Analysis
Exhibit E	Water Availability Analysis
Exhibit F-1	Hydrologic Analysis
Exhibit F-2	Addendum to Hydrologic Analysis
Exhibit G	Application Submittal Materials & Correspondence
Exhibit H	Project Revision Statement