

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:** Silver Oak Cellars: Carmelite Vineyard Agricultural Erosion Control Plan Application (ECPA) #P21-00064-ECPA
2. **Property Owner:** Discalced Carmelite Fathers Oakville 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):** 20 Mt. Carmel Drive, Oakville, CA, APN 027-280-006 (**Figure 1** and **Figure 2**)
5. **Project Sponsor:** Silver Oak Cellars
P.O. BOX 414
Oakville, CA 94562
Agent: James R. Bushey (Registered Professional Engineer No. 49931)
PPI Engineering
2800 Jefferson Street
Napa, CA 94558
6. **General Plan description:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Background/Project History:** The Carmelite House of Prayer property is owned by Discalced Carmelite Fathers Oakville Inc., with Silver Oak Cellars as the lessee and vineyard project proponent. The property is currently developed with a residence (main house), a monastery, other associated buildings to the monastery, and associated landscaping, as well as a 1.4 gross-acre (0.86 net-acre) vineyard block on land with slopes of less than 5 percent (%).
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 4.3 gross acres of vineyard (i.e., development area or proposed clearing limits) with approximately 3.0 net planted acres, within two vineyard blocks located on an approximately 28.17-acre property (i.e., project site). Average slopes within the development area range from 12% to 21%. There are pockets of land within the proposed development area totaling approximately 0.5-acre that exists on slopes over 30%. A total of 1.63 acres of wooded canopy would be removed as part the project, including approximately 0.05-acre of blue oak woodland (5% of the 1.03-acres of blue oak woodland on site), 1.58 acres of ornamental grove and 0.27-acre blue gum grove. Rock removed during the clearing and development of the land would be crushed and returned to the field or used to surface existing roads where needed. Rock not used immediately would be stockpiled in piles no more than 20 feet in height for future use inside the proposed clearing limits. There would be no transport of spoils off-site. The vineyard would be irrigated with groundwater from an existing well, and irrigation pipelines would be located in vineyard areas and/or within the proposed clearing limits. Wildlife exclusion fencing would be installed around individual proposed vineyard blocks (refer to Figure 4 in **Exhibit A**).

Erosion Control Measures: Temporary erosion control measures include water bars, straw wattles, application of straw mulch at a rate of 3,000 pounds per acre, straw bale dikes, and other practices as needed. Permanent erosion control measures include: drop inlets and installation of a permanent cover crop maintained at a minimum vegetation cover density of 85%. Details of the proposed erosion control measures are provided in the Silver Oak Cellars Carmelite Vineyard Erosion Control Plan (ECP), March 2021, prepared by James R. Bushey (RPE No. 49931) of PPI Engineering, Inc. (**Exhibit A**).

Earthmoving: Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation include, but are not limited to vegetation 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 4-foot by 7-foot spacing pattern for an approximate vine density of ±1,556 vines per acre.
- b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
- c. Ongoing operation and maintenance of the vineyard, 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. Contact or systemic herbicides may be applied in the spring (no earlier than February 15) to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P21-00064-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P21-00064-ECPA.

Table 1 – Implementation Schedule

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

¹ During the winter months in municipal watersheds (October 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 six one-way worker trips per day for work crews of between four and eight workers. Approximately ten 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, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles.

Vineyard operation, including pruning and harvest, is anticipated to require up to 12 one-way worker trips per day for work crews of approximately six to 12 workers. Approximately two additional one-way trips per day are anticipated for grape haul trucks during harvest which is expected to be three 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 Carmelite Vineyard Erosion Control Plan prepared by James R. Bushey (RPE No. 49931) for PPI Engineering (March 2021 - **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 development area is located on one parcel totaling approximately 28.17 acres located at 20 Mt. Carmel Drive in Oakville, California accessed from Doak Road approximately 0.1-mile from its intersection with Oakville Grade Road, and approximately 3 miles northwest of central Yountville (**Figures 1-3**). The property is situated on the eastern flank of the Mayacama Mountains, and is within the To Kalon Creek subwatershed of the Napa River watershed. There are three ephemeral streams that are avoided with a minimum 35-foot setback in accordance with Napa County Code (NCC) Conservation Regulations §18.108.025, and one 0.03-acre wetland, which is avoided with the minimum 50-foot setback in accordance with NCC §18.108.026.

The development area consists of grass and trees, with elevations ranging from approximately 252 to 362 feet above mean sea level (msl). Surrounding land uses include rural residential, wineries, vineyards and open space. The land cover types in the development area include non-native grassland, blue gum grove, ornamental grove and blue oak woodland. The project area is not currently fenced; proposed fencing would enclose the proposed blocks individually.

General topography of the area is moderately to steeply sloped, and located on the eastern flank of the Mayacama Mountains. Elevations

in the parcel range from approximately approximately 252 to 362 feet above msl.

The closest active fault to the project site is located approximately 0.4-mile to the north. No landslides or areas of instability have been identified within the development area (Napa County GIS Landslide Layers). Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 1978) as Felton gravelly loams with 30 to 50% slopes, and Hambright-rock outcrop with 2 to 30% slopes (PPI 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)

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 4, 2021. The County received a response letter from Yocha Dehe Wintun Nation dated May 18, 2021, indicating that the project area is not located within the aboriginal territories of the Yocha Dehe Wintun Nation, and requested that correspondence be deferred to Middletown Rancheria and Mishewal Wappo Tribe. On February 3, 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 February 3, 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 type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input 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 #P21-00064-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>.

- PPI Engineering Inc., March 2021, Silver Oak Cellars Carmelite Vineyard Erosion Control Plan (**Exhibit A**).
- WRA, Inc., December 2020, Biological Resources Reconnaissance Survey Report, Carmelite Monastery, St. Helena, Napa County (APN:027-280-006) (**Exhibit B**)
- PPI Engineering, March 31, 2021, Memorandum Re: Carmelite Vineyard, Track I ECP, APN 027-280-006, Soil Loss Analysis (**Exhibit C**).
- Richard C. Slade and Associates LLC, March 10, 2021, Memorandum Re: Results of Napa County Tier 1 and Tier 2 Water Availability Analyses, Vineyard Development Project at Carmelite House of Prayer Property, 20 Mount Carmel Drive, Vicinity Oakville, Napa County, California (**Exhibit D-1**).
- Richard C. Slade and Associates LLC, April 29, 2022, Response to Napa County PBES Inquiry Regarding Current Applicability of the RCS-Prepared Water Availability Analysis, Silver Oak Carmelite WAA P21-00064-ECPA (**Exhibit D-2**).
- PPI Engineering Inc., March 31, 2021, Memorandum Re: Carmelite Vineyard, 20 Mt. Carmel Drive, Oakville CA, APN 027-280-006, Hydrologic Analysis (**Exhibit E**).
- Application Submittal Materials & Correspondence (**Exhibit F**)
- Project Revision Statement (**Exhibit G**)
- Site inspection conducted by Napa County Planning Staff on April 2, 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 G** is the signed Project Revision Statement.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An

ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Signature



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 approximately 1 mile southwest of Highway 29, which is a Napa County-designated scenic roadway (Napa County GIS, Scenic Corridors Layer). The proposed vineyard use is consistent with the Napa County General Plan agricultural land use designations and with adjacent land uses. 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 and surrounding the project site. As described in the Project Description and in **Section IV (Biological Resources)**, trees would be removed during project construction. However, the trees are located within the interior of clusters of trees and are not visible from public viewpoints; therefore, the proposed project would not result in damage to a scenic resource.

The project site is not located on a prominent hillside or a major or minor ridgeline (Napa County GIS, Ridgelines Layer) and there are no historic buildings on the site. There are no 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 wineries. 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 4.3 gross acres (3.0 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.
- 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.

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.

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.

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 on the eastern flank of the Mayacama Mountains, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and

meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, and vehicular haul and worker trips. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. Refer to **Section XVII (Transportation)** for the anticipated number of construction- and operation-related trips.

The 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 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.

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.

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 4.3 gross acre vineyard (3.0 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). 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 vineyards, conservation areas, and rural residences. The closest school (Yountville Elementary) is located approximately 3.2 miles southeast of the development area in the Town of Yountville (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 700 to 1,100 feet from the development area. The closest residential area in the Town of Yountville is located approximately 3 miles southeast 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 utilized in this analysis and are incorporated herein by reference and available in the project file for review:

- WRA, Inc., December 2020, Biological Resources Reconnaissance Survey Report, Carmelite Monastery, St. Helena, Napa County (APN: 027-280-006) (**Exhibit B**)

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

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

- 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 on March 21, April 14, and July 27, 2020, and February 11, 2021. 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.

The 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, 2020) to the taxonomic level necessary to determine special-status plants. The biological survey studied approximately 22.27 acres on the project site, which included the 4.3-acre development area (Figure A-4 in **Exhibit B**); 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 on the Project Site

Biological Communities or Habitat Type	Approximate Pre-Project Conditions (acres)	Approximate Acreage in the Development Area
Developed Area	6.33	0.52
Non-Native Annual Grassland	4.76	2.10
Blue Gum Grove	0.27	0.27
Ornamental Grove	4.63	1.58
Blue Oak Woodland	1.03	0.05
Coast Live Oak Woodland	5.23	0
Seasonal Wetland	0.03	0
Total	22.28	4.52¹

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, December 2020 (Exhibit B)

- a. Special-Status Plants: Based upon a review of the resource databases listed in **Exhibit B** (WRA, December 2020), 93 special-status plant species have been documented in the vicinity of the project site, 11 of which have the potential to occur in the project site and are listed in Appendix C of **Exhibit B**. Figure A-2 in **Exhibit B** depicts occurrence records of these species in the CNDDDB within a 5-mile radius of the project site. However, no special-status plant species were identified during the floristic surveys. Therefore, the proposed project would not impact special-status plant species.

Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is encouraged by Napa County General Plan Goal CON-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.

The project as proposed would not remove special-status plants and/or populations, which is consistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be

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.

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 58 special-status wildlife species have been documented in Napa County (CDFW 2020a, Napa County 2005). Five 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*), long-legged myotis (*Myotis volans*), olive-sided flycatcher (*Contopus cooperi*), and white-tailed kite (*Elanus leucurus*). 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). Roosting habitat characteristics for this species were not observed within those trees situated within the development area during the targeted bat habitat assessment performed in conjunction with a tree survey (WRA, December 2020 – **Exhibit B**).

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). Roosting habitat characteristics for this species were not observed within those trees situated in the development area during the targeted bat habitat assessment performed in conjunction with a tree survey (WRA, December 2020 – **Exhibit B**).

Long-legged myotis ranges across western North America from southeastern Alaska to Baja California and east to the Great Plains and central Texas. This species is usually found in coniferous forests, but also occurs seasonally in riparian and desert habitats. They use abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark and hollows within snags as summer day roosts. Caves and mines are used as hibernation roots. Long-legged Myotis forage in and around the forest canopy and feed on moths and other soft-body insects (WBWG 2020). The trees within the project site may contain cavities or exfoliating bark suitable for roosting. During the targeted bat habitat assessment performed in conjunction with a tree survey (WRA, December 2020 – **Exhibit B**), no evidence of bats or suitable physical characteristics for maternity roosting habitat for bats was found; therefore, potential impacts related to bats would be less than significant.

Olive-sided flycatcher is a passerine bird known from across Canada into the West Coast, Rocky Mountains, and Great Lake Area. They typically nest in coniferous or mixed forests, particularly lower montane forest. These birds forage for flying insects in forest openings, burn areas, edges, and other mixed open area in greater forest habitats. Nests are well-hidden in dense branches of large trees, preferentially conifer trees (Altman 2000) (WRA, December 2020 – **Exhibit B**).

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 open areas in close proximity for foraging (WRA, December 2020 – **Exhibit B**).

The proposed project is located in an area identified by the California Natural Diversity Database as owl habitat; however no owl species were identified during the surveys, and the project biologist determined that the habitat necessary to support owls was not present on the project parcel or in the immediate vicinity (Napa County GIS: CNDDDB layer; WRA 2020 – **Exhibit B**).

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.

Tree removal and temporary and intermittent increases in noise levels may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. Therefore, implementation of the proposed project could result in potentially significant direct and indirect impacts to protected bird species, included olive-sided flycatcher and white-tailed kite, as well as migratory birds and raptors.

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-1** would be implemented to include a preconstruction nesting bird survey and measures to avoid any nests with an exclusion buffer.

Mitigation Measure BR-1: The owner/permittee shall revise Erosion Control Plan #P21-00064-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

- a. For earth-disturbing activities occurring between February 1 and August 31, (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with 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.

b-c. The project site contains blue oak woodland, coast live oak woodland, and wetlands, 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 0.03 acre of seasonal wetland, which falls entirely outside of the development area (WRA December 2020 – **Exhibit B**). The wetland presents as a seasonal swale, located east of the Mt. Carmel Drive access road to the project site. 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 small wetland identified as a seasonal swale northeast of Mt. Carmel Drive approximately 275 feet from its intersection with Doak Road shall be flagged in the field by a qualified biologist and protective construction fencing shall be installed along its boundary for County inspection and approval prior to the commencement of vegetation removal and earth-disturbing activities. No equipment or work shall be allowed within the pond bottom or wetland: all work shall be conducted from the top of the pond embankment. The protective construction fencing shall be maintained and remain in place until all grading and erosion control measure installation are complete.

The project site contains three ephemeral drainages, all of which are outside of the development area. The streams drain towards the northeast and terminate in vegetated areas west of Doak Road. The flows in the ephemeral drainages only run during and immediately following substantial precipitation. These drainages contain shallow, narrow banks of fine sediments (clays, loams) and beds composed of a mix of fine sediments and small, loose cobble and gravel. Although the majority of the reach of these drainages is covered by trees, there is no presence of riparian vegetation. The streams on the project site are 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 streams 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 and wetland setbacks required pursuant to Section 18.108.025 and Section 18.108.026, further protecting these aquatic resources during project implementation and operation resulting in a less than significant impact. Implementation of the standard condition of approval for stream protection, below, would ensure that all streams are protected from construction and subsequent vineyard operations. Therefore, the proposed project would not result in 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 creek setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the 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 4.3 gross acres (3.0 net acres) across portions of one parcel comprising the project site. No other fencing currently exists on the site; the proposed project would install wildlife exclusion fencing around the two proposed vineyard blocks individually. The proposed wildlife exclusion fencing would leave a large open lawn area between the two proposed vineyard blocks, which would reduce impacts to wildlife movement by ensuring there is a movement corridor between the fenced vineyard blocks.

The project site is not located within a mapped “Essential Connectivity Area” (Conservation Biology Institute, 2022). The project site is located to the west of a mapped essential connectivity area. At the scale of landscape linkages, this tract provides connectivity between baylands of San Pablo Bay and areas from northern Napa County northward. Given the relatively small size of the project site and it being located adjacent to the west and outside of an essential connectivity area, and the lack of apparent development impacts within the more central portion of this tract, 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. At a more local scale, the project site provides connectivity between forest/woodland and developed land (rural residential and agricultural developments) within a rural portion of Napa County. While the proposed vineyard blocks would result in portions of the site having reduced potential for on-site wildlife movement, the preservation/avoidance of streams within the project site, as well as the condition of the surrounding lands, would continue to allow for movement through the vicinity. The proposed wildlife exclusion fencing would not interfere substantially with wildlife movement and impacts are expected to be less than significant.

In addition, preservation of substantial portions of the oak woodlands and grasslands on the parcel would also allow for continued localized movement of wildlife. The proposed vineyard blocks would be separated by existing habitats and streams which would allow for continued wildlife movement within and through the project area. The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity.

Because wildlife nursery sites were not identified in the project site, there would be no impacts to wildlife nursery sites. While the proposed fencing would not result in significant impacts to wildlife movement and use, in order to ensure that wildlife exclusion fencing is installed in a manner that is consistent with CDFW recommendations to minimize impacts to wildlife movement, habitat use and

availability, and vegetation removal the following condition of approval would be incorporated should the proposed project be approved.

Fencing – Condition of Approval: The owner/permittee shall revise the vineyard fencing plan associated with #P21-00064-ECPA prior to its approval to include the following components:

- New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
 - Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
 - Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P21-00064-ECPA pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited, and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.
- e. Based on the Biological Resources Reconnaissance Survey Report (WRA, 2020 – **Exhibit B**), the project parcel contains a total of 6.26 acres of oak woodland, including approximately 5.23 acres of coast live oak and 1.03 acres of blue oak woodland, in addition to approximately 4.63 acres of ornamental groves, which is not considered to be a sensitive community but contains native tree species. The parcel also contains approximately 0.27-acre of blue gum grove and 4.76 acres of non-native grassland, neither of which are considered to be sensitive communities by CDFW or 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 Data Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 20050). 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).

Blue oak woodland is known from the interior North Coast Range, South Coast Range, southern Cascade Range, and Sierra Nevada Foothills from Humboldt County south to Ventura County (Sawyer et al. 2009, CNPS 2020b). These woodlands are typically situated on valley bottoms, foothills, and rocky outcrops underlain by moderately to excessively drained shallow, rocky, low-fertility substrate (Sawyer et al. 2009) (WRA, December 2020 – **Exhibit B**).

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, December 2020 – **Exhibit B**).

The proposed project would result in the removal of 0.05 acre of blue oak woodland, resulting in 95% retention of blue oak woodland, and would retain 100% of coast live oak woodland, for a total of 99% retention of vegetation canopy cover (i.e., oak woodland). The project would also remove approximately 1.58 acres of ornamental grove (44% of total), and 0.27-acre of blue gum grove (100% of total). Approximately 120 trees (including 33 non-native species and 39 planted trees) with a diameter breast height greater than 6 inches are proposed for removal within the project area.

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. The project parcel contains approximately 6.26 acres of oak woodland, with 0.05 acre occurring in the development area. In order to maintain 2 acres preserved for 1 acre impacted in compliance with the 2:1 preservation ratio found in Policy CON-24(C), up to approximately 2.09 acres can be converted to vineyard to comply with this policy. The proposed project would retain/preserve more than the 2.09 acres of oak woodland for each acre impacted; therefore, the project is consistent with Policy CON-24(C).

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.

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. The project proposes to retain 6.21 acres¹³ (or 99%) of the vegetation canopy cover (i.e., oak woodland) that existed on the subject parcel in 2016 on areas under 50% slope and outside of stream setbacks (**Exhibit A**, Appendix C), exceeding the 70% retention requirement found in NCC Section 18.108.020(C). A more conservative analysis that incorporates the ornamental grove (due to the presence of some native species within the community) results in retention of 3.05 acres (approximately 66% of total) of ornamental grove. When combined with the retention of 6.21 acres of oak woodland, the project would result in a total retention of approximately 85% of the tree canopy cover (including oak woodlands and ornamental grove), consistent with the requirements of NCC Section 18.108.020(C).

Specific to vegetation removal mitigation and preservation, NCC Section 18.108.020(D) (Vegetation Removal Mitigation) requires that the removal of any vegetation canopy cover in the AW zoning district be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. NCC Section 18.108.020(D) prioritizes where the mitigation replacement and preservation areas should be allowed, whereby the first priority is for onsite replacement and/or preservation areas that generally occur on slopes less than 30% and outside of stream and wetland setbacks; if this cannot be reasonably accomplished, then onsite replacement and/or preservation may occur on slopes up to 50%, in areas that result in the highest biological and water quality protections, 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.

The project proposes to remove a total of 1.58 acres of ornamental grove and 0.05-acre of blue oak woodland canopy, for a conservative total removal of 1.63 acres. Approximately 0.98-acre of blue oak woodland canopy and 5.23 acres of coast live oak woodland would be retained, for a combined total of 6.21 acres of vegetation canopy cover retention, as defined in NCC Section 18.108.030. When incorporating the ornamental grove into the analysis, the 1.63 acres of tree removal represents approximately 85% canopy cover retention, which exceeds the required 3:1 (or 75%) vegetation canopy cover preservation requirements found in NCC Section 18.108.020(D).

While the project, as proposed, would exceed the vegetation canopy cover retention requirements, it 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-2** would require #P21-00064-ECPA be revised, prior to approval, to include a 4.89-acre vegetation removal mitigation preservation area on land with slopes less than 50% and outside of stream setbacks. With implementation of **Mitigation Measures BR-1 and BR-2** and standard conditions of approval, the proposed project would have less than significant impacts on special-status plants and wildlife, wildlife movement and result in conformance with policies protecting biological resources in the Napa County General Plan and Conservation Regulations. Further, as discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, the project, as proposed, would reduce the amount of soil loss due to erosion by 1.27 tons per year, or by 80% when compared to the existing condition, and would result in no net increase in runoff post-project conditions. Therefore, the findings can be made that highest biological and water quality protections have been incorporated into the project, as proposed, with incorporation of **Mitigation Measures BR-1 and BR-2** and standard conditions of approval, resulting in less than significant impacts.

Mitigation Measure BR-2: The owner/permittee, prior to approval, shall revise #P21-00064-ECPA to include the following provisions to reduce potential impacts to oak woodland and associated vegetation cover canopy, and to achieve consistency with the NCC Conservation Regulations Chapter 18.108:

- a. An Oak Woodland Preservation Area totaling 4.89 acres of vegetation cover canopy located outside of the boundaries of the existing and proposed developed area shall be designated as such in a deed restriction or conservation mitigation easement or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including, but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The Owner/Permittee shall record the deed restriction or conservation mitigation easement prior to construction or within 60 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the oak woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the

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)."

¹³ The 0.27-acre of blue gum grove (e.g., eucalyptus) would be removed by the proposed project; however, blue gum grove does not meet the definition of "vegetation canopy" for purposes of vegetation canopy cover retention under County Code Section 18.108.020. Although the ornamental grove is composed of trees planted for landscaping purposes and may not meet the definition of "vegetation canopy" in the County Code, it was included in the vegetation calculations to provide a more conservative analysis.

project property, protects special-status species; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 50%). 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.

- 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 #P21-00064-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.

Additionally, as discussed in questions (a) through (c) above, the proposed project is designed to incorporate mitigation measures and conditions of approval, impacts to sensitive natural communities and special-status species would be less than significant. Therefore, the proposed project with conditions incorporated is consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108.

- 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:

- Flaherty Cultural Resources Services, September 4, 2020, Cultural Resource Reconnaissance of 8+/- Acres Near Oakville, Napa County, California

Flaherty Cultural 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 8 acres on the project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

- a-b. The cultural resources study (Flaherty Cultural Resource Services, September 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 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

or collapse?

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

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development, but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.
 - i) The project site is not located on an active fault or within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. The closest active fault to the project site is located 0.4-mile northwest 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 very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
 - iv) Active landslides have not been identified within the development area (Napa County GIS landslide layer) and therefore, is considered to be a less than significant impact (also see question (c) below for additional discussion regarding slope stability and landslides).
- b. The project site is underlain by two soil mapping units: Felton gravelly loams with 30 to 50% slopes and Hambright-rock outcrop with 2 to 30% slopes. Installation and implementation of the project would involve vegetation removal and earthmoving activities within the proposed vineyard areas. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through cover crops with vegetative cover densities of at least 85% as specified in the ECP. No strip spraying would be performed in order to achieve 85% vegetative cover. The cover crop would be managed each year such that any avenues which have less than 85% 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 PPI Engineering (**Exhibit C**), the proposed conversion of approximately 4.3 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 5.99 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 1.27 tons per year, or a reduction of approximately 80% 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	4.36	3.49	0.87	-20%
2	1.63	1.23	0.40	-25%
Total	5.99	4.73	1.27	-21%

Source: PPI Engineering, March 31, 2021, Soil Loss Analysis (Exhibit C)

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, straw bale dikes, drop inlets, 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 #P21-00064-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than October 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 “Oversight and Operation” the qualified professional that has prepared this erosion control plan (#P21-00064-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 85% vegetative cover shall be reseeded and mulched until adequate coverage is achieved. The permanent cover crop shall be mowed only and not disked. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County “Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops” July 19, 2004, or as amended.

It is not expected that land preparation activities associated with the proposed vineyard, such as removal of rocks from the soil profile, would substantially affect the USLE modeling results. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and movement of soil particles. The primary goal of cultivating the soils within the development area during implementation is to prepare the site for planting, including fracturing and mixing layers of compressed soil and rock to facilitate root growth and improve permeability, rather than to remove all the rock within the development area soils. Soil cultivation may result in a greater number of smaller rocks at the soil surface. Smaller rocks that emerge through development would be left within the vineyard, and only larger rocks that surface would be removed. Because the larger rocks that may be removed from the site are generally underneath the soil surface, the removal of larger rocks that emerge during development would not significantly alter the composition of soil. Therefore, the soil type classification 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 landslides, ground failure or liquefaction and the proposed project would address any potential soil instability. Therefore, the proposed project would not result in any significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.
- d. Soils within the development area consist of Felton gravelly loams and Hambright-rock outcrop, which exhibit moderate and low to high shrink-swell potential, respectively (USDA, 1978). The Napa County Soil Survey describes the Felton series as well-drained soils on uplands formed in material weathered from sandstone and shale and the Hambright-rock outcrop series as well-drained soils on uplands. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).¹⁴ 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.

¹⁴ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>, April 2022

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 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>).¹⁵

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

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

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

Construction Emissions:

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁶ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 4.3 gross acres of vineyard development would be approximately 40.4 MT CO_{2e} (4.3 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 4.3 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 183.63 MT C or approximately 673.9 MT CO_{2e} (**Table 6**).

¹⁵ “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).

¹⁶ As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.

Table 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	2.10	1.4	2.94	10.8
Oak Woodland ¹	1.9	95.1	180.69	663.1
Total			183.63	673.9

¹ For the purpose of these GHG calculations, the most conservative option was chosen; therefore, the 0.27 acre of blue gum grove and 1.58 acre of ornamental grove land use types in the development area were included with the acreage for oak woodland.

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%.¹⁷ 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 630.95 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	2.10	0.8	1.68	6.17
Oak Woodland ¹	1.90	89.6	170.24	624.78
Total			171.92	630.95

¹ For the purpose of these GHG calculations, the most conservative option was chosen; therefore, the 0.27 acre of blue gum grove and 1.58 acre of ornamental grove land use types in the development area were included with the acreage for oak woodland.

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 4.3-acre agricultural development would be approximately 2.9 MT CO_{2e} (4.3 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 0.93 MT C per year or 3.41 MT CO_{2e} per year.¹⁸

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 671.37 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 6.29 MT CO_{2e} per year (Table 8).

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

¹⁸ 2.10 acres of grasslands times 0.057 MT C = 0.12 MT C, and 1.90 acres oak woodland (which conservatively includes the 0.27 acre of blue gum grove and 1.58 acre of ornamental grove land use types in the development area) times 0.425 MT C = 0.81 MT C, totaling 0.93 MT C

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	40.42	Vehicles and Equipment	2.88
Vegetation and Soil	630.95	Loss of Sequestration	3.41
Total	671.37	Total	6.29

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 671.37 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 0.03% 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 85%, 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 6.29 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 1.63 acres of tree canopy, including ornamental grove and blue oak woodland canopy, and would retain approximately 85% of the tree canopy on the parcel. With implementation of **Mitigation Measure BR-2**, the project would result in the permanent preservation of approximately 4.89 acres of tree 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-2**, 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 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; 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 mixed and equipment would be cleaned in a building located approximately 150 feet northeast of proposed Block 1 (**Exhibit A, Figure 5**). Fertilizers would be applied, up to twice 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) there are no wetlands located within the development area and therefore, 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 (Younville Elementary School) is located approximately 3.2 miles southeast of the project site. 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, there would be negligible numbers of workers visiting the project site on a temporary basis to implement the proposed project. Up to 12 workers would also visit the site on a seasonal basis for subsequent vineyard operations. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and the impact would be less than significant.
- g. No structures are proposed as part of the project. The project site is located in 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 of Napa has not adopted or implemented any mandatory water use restrictions. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater 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.

On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures for limitations on groundwater use County-wide and on measures to implement the EO for issuance of new, altered or replacement well permits during the declared drought emergency. The EO applies to new, altered or replacement well permits. Since this project relies on existing permitted wells, it is not subject to the EO however it is subject to the 0.3 AF/acre per parcel groundwater use limitation per the GSP for sustainable groundwater use to minimize overdrafting the Napa Valley Subbasin. The GSP determined that the best conservation assumption for sustainable groundwater use in order to minimize impacts to the groundwater basin resulting from overdrafting water from the basin would be to allow no more than 0.3 acre-feet per year (AF/yr) per parcel throughout the whole county. Based on the project parcel's size of 28.17 acres, the conservative allowance of groundwater use on the project parcel should be no more than 8.45 acre-feet per year (AF/yr). To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways, the County's WAA

guidance requires applicants to perform a Tier 3 analysis for new or replacement wells, or discretionary projects that would result in an increase in groundwater demand on existing wells that are located within 1,500 feet of designated "Significant Streams."¹⁹

The project site is located in the To Kalon Creek subwatershed that flows into Napa River (via an unnamed tributary to the Napa River) to the east of the project area. The Napa River is designated critical habitat for steelhead (Napa County GIS USFWS critical habitat layer). The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the CWA. Historically, the construction of large dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

In response, the San Francisco Bay Regional Water Board has implemented the following programs. In 2009 the San Francisco Bay Regional Water Board adopted total maximum daily load (TMDL) for the Napa River (Order #R2-2009-0064), which calls for reductions in the amount of fine sediment deposits into the watershed to improve water quality and maintain beneficial uses of the river, including spawning and rearing habitat for salmonid species. Several watershed stewardship groups have developed management plans and are planning or have implemented large-scale projects to enhance water quality and stream-riparian habitat with the watershed (San Francisco Bay Regional Water Board, 2019).

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan"²⁰; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board²¹.

There are two blue line streams on the Rutherford 7.5-minute quadrangle (USGS, 2012) and in the National Wetlands Inventory (NWI; USFWS 2020a) the California Aquatic Resources Inventory (CARI; SFEI, 2021); all of these are located outside of the parcel boundaries. There are three ephemeral drainages and a seasonal wetland located on the parcel outside of the proposed development area, all of which have the appropriate setbacks (35 feet for ephemeral drainages and 50 feet for wetland), determined by slope as outlined in Napa County Conservation Regulation Section 18.108.025. All watersheds eventually drain to an unnamed tributary of the Napa River to the east of the property.

- 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 #P21-00064-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater

¹⁹ Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-Sustainability. The "Significant_Streams" and "Significant_Streams_1500ft_buffer" GIS layers are published as publicly-available open data through the County's ArcGIS Online Account.

²⁰ A farm plan documents a vineyard property's natural features, developed areas, and BMPs. Under the General Permit, a "certified" farm plan would mean that upon its full implementation of the plan, that the vineyard property is expected to achieve the performance standards for discharge. The Water Board's Executive Officer would approve third-party programs or certify a farm plan.

²¹ https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/agriculture/vineyard/

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 modest increase in groundwater demand from the proposed project on the project site (Richard C. Slade and Associates, March 2021 – **Exhibit D-1**), and, following County request, a follow-up opinion memo was prepared (RCS, April 29, 2022 – **Exhibit D-2**), which confirmed that, despite slight changes to the annual recharge and drought period recharge values, the the estimates in the WAA remain valid in light of the current extreme drought conditions in Napa County.

Water demands for the existing onsite developments (i.e., residence, monastery, and other associated buildings to the monastery and associated landscaping) have historically been met primarily via an offsite spring (located approximately 2,100 feet west of the property and labeled on Figures 1 and 2 of **Exhibit D-1**) for which a water easement reportedly exists for the property; onsite water demands are also supplemented by groundwater pumped from an existing onsite well located in the southern portion of the property. Based on a totalizer flowmeter device on the well, a total of approximately 1.6 acre-feet (AF) of supplemental groundwater has been pumped since July 2016 to meet existing onsite water demands. Therefore, the total existing groundwater demand is estimated at 0.4 AF/year for the project site (**Table 9**).

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 1.5 AF/year of groundwater to irrigate the approximately 3.0 net acres of new vineyard. After full development (including the existing onsite uses, the 0.86-acre vineyard block under development at the time of preparation of the Water Availability Analyses Memorandum, which would require approximately 0.43 AF/year, and the proposed project vineyards), total groundwater use would be approximately 2.33 AF/year (**Table 9**). This is less than the parcel’s allowed groundwater allocation of 8.45 AF/yr (based on the 0.3 AF/ac/year maximum allocation by parcel).²² The existing onsite infrastructure (i.e., the monastery, and associated monastery buildings and landscaping) would continue to be supplied by the offsite spring, and supplemented with approximately 0.4 AF/year of groundwater pumped from the onsite well, as needed, during the late summer months (**Exhibit D-1**).

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)
Supplemental water for existing infrastructure and associated buildings	0.4	0.4
Vineyard (includes existing 0.86-acre and proposed 3 acres)	0.00	1.93
Total	0.4	2.33

Source: Richard C. Slade and Associates, March 2021 – **Exhibit D**

Groundwater Recharge: Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the project site that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the Water Availability Analyses Memorandum, which uses an average annual rainfall of 35.3 inches per year over the approximately 28.2 acres²³ of the project site’s land area available for recharge and a 14% deep percolate recharge estimate, estimates the average annual groundwater recharge of project site to be approximately 11.6 AF/year (see **Exhibit D-1** and **Exhibit D-2** for details and calculations). The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions.

The post-project site is estimated to have an annual future groundwater demand of 2.33 AF/year, which is below the estimated average annual recharge volume of 11.6 AF/year identified in the Water Availability Analyses Memorandum.

The Water Availability Analyses Memorandum also estimated the potential groundwater in storage and the effects of a prolonged drought to assist in evaluating potential groundwater impacts of the project. The estimated groundwater in storage beneath the project site (as of November 2020) is approximately 129 AF, and a “prolonged” drought period” would last six years where rainfall would be 40% of the average annual rainfall.

²² Total parcel acreage is 28.17 acres times 0.3 AF/ac/yr = 8.45 AF/yr

²³ The Water Availability Analyses Memorandum assumed infiltration in areas with slopes greater than 30% on the project site was 0%.

To meet six years of proposed groundwater demand for the proposed project and existing water uses, a total onsite groundwater extraction of 14 AF is estimated to be required for the subject property (2.33 AF/year times six years). Assuming groundwater recharge is reduced to 40% of the average annual recharge during such a theoretical “prolonged drought period”, the resulting total of groundwater recharge that might occur during the six-year drought period for the project site is estimated to be approximately 27.6 AF (4.6 AF/year times six years). Therefore, assuming a theoretical six-year drought period during which only 40% of the average annual rainfall might occur, a conservative estimate of the total drought-period recharge at the subject property (27.6 AF) would be greater than the estimated total onsite groundwater demand (14 AF) that may occur over the same six-year period (**Exhibit D-1** and **Exhibit D-2**).

Because there are two offsite wells located within 500 feet of the onsite well, a Tier 2 Water Availability Analysis was performed (**Exhibit D**), with key assumptions for the analysis based on data derived from the pumping test of the onsite well. Using drawdown data collected from the onsite well during the November 2020 pumping test, theoretical drawdowns that might be induced in the nearby offsite Neighbor Well 1 and Neighbor Well 2, by virtue of pumping the onsite well at a rate and duration necessary for the proposed project, would be 0.8 feet and 0.6 feet, respectively. These values are much less than the default drawdown interference criteria listed in Table F-1 of the 2015 Water Availability Analysis guidance document; less than significant impacts are anticipated in this regard.

The onsite well is located well over 1,500 feet from the off-site spring, and approximately 300 feet from a blue-line stream (Doak Creek). The Water Availability Analysis Guidance Document²⁴ requires additional analysis (Tier 3 – Groundwater/Surface Water Interaction) when substantial evidence in the record determines the need for such an analysis, which includes standards and assumptions based on the groundwater pumping capacity, well construction and aquifer properties and the distance to surface water. A Tier 3 WAA was being prepared for this project due to proximity to a blue-line stream when the County updated the Significant Streams required to be evaluated. The project well is located outside of the 1,500-foot buffer of nearby “Significant Streams” (Napa County GIS Significant Streams and Significant Streams 1500ft buffer layers); therefore, the project is not subject to a Tier 3 analysis, and a less than significant impact on groundwater resources is anticipated in this regard.

Considering: i) anticipated annual water use of the project site for existing and proposed use of approximately 2.33 AF/year is below the project site’s anticipated annual groundwater recharge rate of approximately 11.6 AF/year; ii) overall water use during a theoretical six year drought period (14 AF) would be less than anticipated recharge of approximately 27.6 AF during the same period; iii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and iv) 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 #P21-00064-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.

²⁴ Napa County Water Availability Analysis (WAA) – Guidance Document, adopted May 12, 2015

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 85% (including vegetated avenues and turnaround avenues), and the annual application of straw mulch cover on all disturbed areas at a rate of 3,000 pounds per acre. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **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 water bars, straw wattles, straw mulching, and straw bale dikes. These features are not anticipated to significantly alter the existing topography or drainage patterns of the project site, or direct surface flows into other watersheds (as further described below). As discussed in **Section VII (Geology and Soils)**, erosion control features would maintain soil losses below the tolerable levels for the soil types found on the project site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs as a result of the proposed project, and that the proposed project is anticipated to decrease soil loss as compared to existing conditions.

A Hydrology Report for the proposed project was prepared by PPI Engineering (PPI, March 2021 - **Exhibit E**). The development area is contained within four watershed basins. Watershed 1 encompasses approximately 3.5 acres and drains directly into a drop inlet. Watershed 2 is located south of Watershed 1 and contains approximately 1.9 acres that drains into an existing catchment basin. The primary outlet for the basin is a drop inlet and pipe which flows southeast into an existing concrete ditch acting as the northeastern boundary of Watershed 4. Watershed 3, located south of Watershed 2, is approximately 9.0 acres and drains to a series of drop inlets and an existing swale before entering into an existing concrete ditch. Watershed 4, located to the south of Watershed 3, contains approximately 8.5 acres and also drains into the existing concrete ditch, which eventually flows to an existing culvert (see **Exhibit E** for additional details).

The Hydrology Report utilized the National Resource Conservation Service (NRCS) TR-20 method to conclude that there would not be an increase in peak flow for the four watersheds in the development area (**Table 10**).

Table 10 –Hydrologic Modeling Calculations (TR-20) Results: Runoff Rates

	Runoff (cfs)			
	2-year	10-year	50-year	100-year
Watershed 1 - Peak Flow				
Pre-project conditions	1.10	2.50	4.11	4.81
Post-project conditions	1.10	2.50	4.11	4.81
Change (cfs)	0.00	0.00	0.00	0.00
Change (%)	0	0	0	0
Watershed 2 - Peak Flow				
Pre-project conditions	0.60	1.36	2.23	2.61
Post-project conditions	0.60	1.36	2.23	2.61
Change (cfs)	0.00	0.00	0.00	0.00
Change (%)	0	0	0	0
Watershed 3 - Peak Flow				
Pre-project conditions	2.59	6.09	10.15	11.94
Post-project conditions	2.59	6.09	10.15	11.94
Change (cfs)	0.00	0.00	0.00	0.00
Change (%)	0	0	0	0
Watershed 4 - Peak Flow				
Pre-project conditions	2.74	6.20	10.17	11.90
Post-project conditions	2.74	6.20	10.17	11.90
Change (cfs)	0.00	0.00	0.00	0.00
Change (%)	0	0	0	0

Source: PPI, March 2021 (**Exhibit E**)

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

The project site is not located in an area of a planned stormwater drainage system, nor is it not directly served by a stormwater drainage system. As discussed above, no overall increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and

sedimentation is anticipated under post-project conditions. Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less than significant impact.

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.²⁵

- 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 1.27 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 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
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- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 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 Yountville, approximately 3 miles southeast of the project site. The project site contains a residence, a monastery, other associated buildings to the monastery, landscaping and an existing 0.86-acre vineyard on land with slopes less than 5%. 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 1.27 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. 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** impacts to 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 and BR-2** and the fencing and tree/woodland conditions of approval, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- With implementation of **Mitigation Measures BR-1 and BR-2** and the fencing conditions of approval, the proposed project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- The proposed project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resource Assessment was prepared for the proposed project (**Exhibit B**).
- The project site has approximately 0.03 acre of 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.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With incorporation of the fencing conditions of approval, and the proposed project's small amount of proposed new fencing, wildlife movement 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 14 miles southeast of the project site. Proposed site improvements and development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

excessive noise levels?

Discussion

a-b. The project site is located in a rural setting approximately 3 miles northwest of Yountville, where surrounding parcels to the north and east are generally vineyards, wineries, and rural residential, with land to west and south generally undeveloped forested hillsides. The nearest residences are located approximately 700 to 1,100 feet from the development area to the northeast and to the south, respectively. 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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be between approximately 55 and 60 dBA at the nearest existing offsite residences.

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

¹ Based on a source noise level of 84 dBA

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately 50 to 55 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 between approximately 50 to 65 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 woodland and grasslands. The development area is accessed from a private road (Mt. Carmel Drive) from Doak Road to the east. 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 six passenger vehicle/truck one-way trips per day during construction, six days a week from April to October. Approximately ten 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 March approximately 10 days of the year and is anticipated to require up to eight workers, resulting in approximately 12 one-way trips per day during pruning. Weed control would occur in February, May, and July (outside of pruning months) three times a year and would require one worker. Harvest would occur on approximately three days during the year and is anticipated to require up to 12 workers, and two grape haul trucks during harvest resulting in up to 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 Doak Road for project development. The proposed project does not include roadway improvements and/or modifications to Doak 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

in Public Resources Code section 5020.1(k); or

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on May 4, 2020. The County received a response letter from Yocha Dehe Wintun Nation dated May 18, 2021, indicating that the project area is not located within the aboriginal territories of the Yocha Dehe Wintun Nation, and the reply stated that correspondence should be conducted with the Mishewal Wappo Tribe of Alexander Valley. On February 3, 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 February 3, 2022.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project’s cultural resources study (Flaherty Cultural Resource Services, September 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. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

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

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 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 straw wattles 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 4.3 gross acres of vineyard (approximately 3.0 net acres) would be irrigated by an existing groundwater well located within the project site. Approximately 0.4 AF/year of groundwater has been used to supplement existing onsite water demands met via an offsite spring. The Water Availability Analyses Memorandum and follow-up opinion memorandum prepared by Richard C. Slade and Associates (**Exhibit D-1 and Exhibit D-2**) concluded that after full development, water use for the 3.0 net acres of vineyard is estimated to be 1.5 AF/year and the 0.86-acre vineyard block under development at the time of the Water Availability Analyses, would require approximately 0.43 AF/year, for a total groundwater use for the vineyards of approximately 1.93 AF/year. The project site's total estimated groundwater demand would be 2.33 AF/year. Based on site-specific recharge and analysis the project site is estimated to have a total average annual groundwater recharge of 11.6 AF/year. The project site's estimated groundwater demand of 2.33 AF/year with the proposed project represents approximately 20% of the average annual groundwater allotment. The Water Availability Analyses Memorandum estimated approximately 129 AF of groundwater is currently in storage beneath the project site, and that during a prolonged drought (estimated to last six years), groundwater recharge would be reduced to 40% of the average annual recharge, or 4.6 AF/year (27.6 AF in six years). To meet six years of groundwater demand, the proposed project (with existing and future water demands) would require approximately 14 AF over the six-year drought period. Based on these estimates, there would be no recharge deficit during a prolonged drought. Therefore, the proposed project would have a less than significant impact on water supplies. Water availability and water use are discussed in greater detail in **Section X (Hydrology and Water Quality)**.

c. 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 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?
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as 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 on the eastern flank of the Mayacama Mountains, located south of St. Helena and north of the Town of Yountville. Elevations within the project site range from approximately 225 to 370 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

of other current projects, and the effects of probable future projects)?

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion

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

- a. As discussed in this Initial Study, implementation of Erosion Control Plan #P21-00064-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment.

Implementation of **Mitigation Measures BR-1** and **BR-2** would avoid potential direct and indirect impacts to oak woodland habitat and special-status and protected bird and their habitat. The proposed new vineyard blocks would be fenced individually. Given the relatively small size of the project site (relative to existing wildlife corridors), agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. While the proposed project (vineyard blocks) would result in portions of the site having reduced potential for on-site wildlife movement, the retention of blocks of vegetation with direct connectivity with similar habitats in the project site and on neighboring properties would allow for continued local wildlife movement. 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 impacts to wildlife movement are expected to be less than significant, and the range of special-status plant and wildlife species would not be restricted, cumulative impacts are anticipated to be less than significant. The project site 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]**). Therefore, the proposed project as designed with the incorporation **Mitigation Measures BR-1** and **BR-2** and conditions of approval, would have a less than significant potential to degrade the quality of the environment.

- b. The project site is located in the To Kalon Creek Drainage area, that flows into Napa River and San Pablo Bay. The To Kalon Creek Drainage area contains approximately 1,311.4 acres. In 1993, vineyard acreage within this drainage was approximately 224.1 acres, or 17.1% of the drainage. Since 1993 approximately 38.1 acres of additional vineyard (or 3% of the drainage) have been developed to vineyard, resulting in approximately 20.1% of the drainage (or approximately 262.2 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the To Kalon Drainage, that approximately 202.8 acres (15.5% of the drainage) have the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 262.2 acres), results in a total potential build out of approximately 465.0 acres or approximately 35.5% of the drainage. The Potentially Productive Soils layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

While it is not possible to precisely quantify the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., To Kalon Creek watershed) 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 To Kalon Drainage, approximately 9.36 acres of agriculture were developed per year (262.2 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 28.1 to 46.8 acres over the next three to five years within the To Kalon Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from

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

Air Quality and GHG - Sections III and VIII:

The proposed project (#P21-00064-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, 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:

Project-specific Biological Resources Reconnaissance Surveys (WRA, December 2020 - **Exhibit B**) were 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 surveys included database records searches to identify the presence or potential presence of special-status species within the project area. The database records searches included the CNDDDB, CNPS, and Napa County databases. As discussed in **Section IV (Biological Resources)**, wetlands were identified in the project site outside of the development area. No special-status plant species are present within the development area and five special-status/protected animal species have the potential to occur within the development; however, with the implementation of **Mitigation Measures BR-1 and BR-2**, impacts on these species would be less than significant. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII:

The cultural resource reconnaissance survey (Flaherty Cultural Resource Services, September 2020) identified no cultural resources in the development area. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidentally, significant impacts to cultural and tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified conditions of approval, the proposed vineyard development project would have a less than significant project-specific and cumulative impact on cultural and tribal cultural resources.

Geology and Soils - Section VII:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 1.27 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 the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions, and would implement erosion and runoff control conditions of approval, the proposed project is not anticipated to contribute cumulatively to sediment production within the To Kalon Creek 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 Richard C. Slade and Associates (March 2021 - **Exhibit D**) indicate that the proposed development consisting of approximately 3.0 net acres of planted vineyard would result in approximately 1.5 AF/year of additional groundwater use and approximately 0.43 AF/year for the existing 0.86-acre vineyard block, compared to the approximately 0.4 AF/year used under current conditions, totaling approximately 2.33/year (**Table 9**). The existing onsite water developments would continue to be supplied by the offsite spring, and supplemented with approximately 0.4 AF/year of water pumped from the onsite well, as needed, during the late summer months.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the NRCS TR-20 method has been prepared by PPI Engineering (PPI, March 2021 - **Exhibit E**). Because the proposed project does not include new diversions, create concentrated flows, or otherwise alter site drainage patterns, and does not materially alter site slopes, no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Exhibit E**). 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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LIST OF EXHIBITS:

- Exhibit A Agricultural Erosion Control Plan # P21-00064-ECPA
- Exhibit B Biological Resources Reconnaissance Survey Report
- Exhibit C Soil Loss Analysis
- Exhibit D-1 Water Availability Analyses
- Exhibit D-2 Response to Napa County Inquiry Re: WAA Applicability
- Exhibit E Hydrologic Analysis
- Exhibit F Application Submittal Materials
- Exhibit G Project Revision Statement