

COUNTY OF NAPA
DEPARTMENT OF PLANNING, BUILDING AND ENVIRONMENTAL SERVICES
1195 THIRD STREET, SUITE 210
NAPA, CA 94559
(707) 253-4416

Initial Study Checklist
(Reference Napa County's Procedures for Implementing CEQA, Appendix C)

1. **Project Title:** Peterson Agricultural Erosion Control Plan Application (ECPA) #P22-00289-ECPA
2. **Property Owner(s):** Austin Peterson
3. **Contact Person, Phone Number and Email:** Dana Morrison, Supervising Planner, (707) 253-4437, Dana.Morrision@countyofnapa.org
4. **Project Location and APN:**

3496 Soda Canyon Road, Napa, CA 94558

Assessor's Parcel Number (APN) 032-500-025 (**Figures 1 and 2**)

Lot 25, Section 22, Township 7 North, Range 4 West, Mt. Diablo Principal Meridian

Longitude - 122° 16' 51.888"W; Latitude 38° 36' 35.37 6"N

- | | |
|---|--|
| <ol style="list-style-type: none">5. Project Sponsor: Austin Peterson
1415 E Street
Napa, CA 94559 | <p>Agent: James R. Bushy, P.E.
PPI Engineering
2800 Jefferson Street
Napa, CA 94558</p> |
|---|--|

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

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

8. **Background and History:**

The approximately 14.3-acre parcel includes an uninhabited single-family residence, historic water tower, breached reservoir, one (1) active and two (2) inactive wells, and a driveway. There is no history of intensive agriculture, quarrying or mining on the subject parcel, though a limited number of cattle were housed on the parcel until recently.

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 7.2 gross acres of vineyard (i.e., development area, project area or proposed clearing limits) with approximately 5.3 net planted acres in two (2) vineyard blocks located on a 14.3-acre property (i.e., project site). This includes approximately 6.1 gross acres (4.6 net acres) in proposed Block 1 and 1.1 gross acres (0.7 net acre) in proposed Block 2 (**Exhibit A**). Average slopes within the development area range from 9 percent (%) to 10%, with approximately 0.1 acre on slopes over 30%. Rock removed during the clearing and development of the land would be used for rock filled avenues, crushed and used on the existing roads where needed, or stockpiled for future use inside the proposed development area. Approximately 138 trees (0.8 acres) with diameter breast height (dbh) greater than 6 inches are proposed for removal, predominantly consisting of oak species. The project proposes to preserve 2.4 acres of existing comparable canopy located outside of creek setbacks and located on slopes less than 30% to achieve consistency with 18.108.020.D and E (see **Exhibit B-1**). Vineyard Block 1 has also been further reduced through **Mitigation Measure Bio-2** to minimize impacts to holly-leaved ceanothus and its habitat such that a minimum of 80% if the identified population are preserved on the property (see **Figure 4**); the recordation of deed restriction shall be required for the preservation of said habitat containing retained 80% holly-leaved ceanothus. The new vineyard would be irrigated with approximately 2.65 acre-feet (AF) of groundwater annually. Irrigation pipelines would be located in existing roads, vineyards and vineyard avenues, and/or within the proposed development area; though the irrigation mainlines connecting the two (2) vineyard blocks to the project well are located outside of the development area (the majority of which will be located underground, barring a portion which will be above ground when crossing one (1) of the identified ephemeral drainages (see Figure 5 of the ECPA). The embankment of an existing breached reservoir in proposed Block 1 would also be removed with the proposed project and the area would be graded to match the surrounding elevations.

Erosion Control Measures: Temporary erosion control measures include installation of straw wattles, application of straw mulch at a rate of 3,000 pounds per acre, water bars, straw bale dikes, and other practices as needed. Permanent erosion control measures include the establishment of a permanent cover crop maintained at a minimum vegetation cover density of 80%. Details of the proposed erosion control measures are provided in the Austin Peterson 3496 Soda Canyon Road Erosion Control Plan (ECP), January 2022, prepared by PPI Engineering (**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, blasting, rock removal, disking, trenching for irrigation pipelines, and the development of erosion and runoff control measures.

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

- a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 3-foot by 6-foot spacing pattern for an approximate vine density of ±2,420 vines per acre.
- b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
- c. Ongoing operation and maintenance of the vineyard, which includes vine management (pruning, fertilization, and pest and disease control), 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 annually in spring (no earlier than February 15) to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season. The width of the spray strips would be no wider than 12 inches in order to achieve 80% vegetative cover.

Table 1 lists a general construction schedule for the proposed project as identified in #P22-00289-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on # P22-00289-ECPA.

Table 1 – Implementation Schedule

April 1	Commence clearing and tillage operations.
September 1 ¹	All tillage and erosion control complete.
September 15 ²	All winterization complete, including seeding, straw mulching, and straw wattle installation.

¹ During the winter months in municipal watersheds (September 1 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).

² All winterization measures must be in place by September 15 of any given year in municipal watersheds pursuant to NCC Section 18.108.027(C).

Table 2 – Typical Annual Operations Schedule

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

Vineyard construction would require up to seven (7) truck trips for project mobilization and demobilization for equipment and materials delivery and pick up. Up to six (6) passenger vehicle round trips per day would occur during construction. Construction equipment is anticipated to include a tractor and disk, medium excavator, D8 bulldozer, D5 bulldozer, loader, water truck, and farm tractor with a trailer.

Pruning would require up to six (6) workers and harvest would require up to eight workers. Up to four (4) passenger vehicle round trips per day would occur seasonally during operation. One (1) truck round trip per day would occur during harvest. Anticipated equipment for vineyard operations would include a tractor with trailer, a forklift, and ATVs and passenger vehicles and/or light trucks.

Implementation of the proposed project would be in accordance with the Peterson Erosion Control Plan prepared by PPI Engineering (January 2022 - **Exhibit A**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES, and on the Current Project Explorer Webpage).

9. Describe the environmental setting and surrounding land uses.

The 14.3-acre project site is located at 3496 Soda Canyon Road, approximately eight (8) miles northeast of the City of Napa, California (**Figures 1-3**). The site is currently undeveloped and contains an abandoned residence and a water tower structure, both of which are no longer in use, an active groundwater well and two (2) inactive wells, and an existing breached reservoir. Surrounding land uses include rural

residential, vineyards, wineries, woodland, and undeveloped land. The land cover types on the project site include blue oak woodland, California annual grassland, and white leaf manzanita chaparral. Existing wildlife exclusion fencing surrounds the project site, as shown in the Peterson Erosion Control Plan (**Exhibit A**), and no additional fencing is proposed.

Elevations range in the development area from approximately 1,382 to 1,442 feet above mean sea level (msl). Ground slopes within the development area range between 9% and 10%. The closest active fault is approximately 4.9 miles west of the project site (Napa County GIS Faults Layer). The development area is not located on any areas containing landslide deposits (Napa County GIS Landslide Layers). Soils in the project site have been classified according to the Soil Survey of Napa County (USDA 1978) as Guenoc-Rock Outcrop Complex, 5 to 30% slopes, and Rock Outcrop-Hambright Complex, 50 to 75% slopes. The project site is located in the Rector Reservoir Domestic Watershed Supply Drainage and contains two (2) ephemeral drainages that generally flow in an east-west direction through the center of the project site.

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

Responsible (R) and Trustee (T) Agencies

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

Other Agencies Contacted

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

- 11. California Native American Tribal Consultation:** Have tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on January 17, 2023. On February 9, 2023, Yocha Dehe Wintun Nation responded that the project site is not located within aboriginal territories of the Tribe. On February 17, 2023, the County replied and closed the consultation invitation because the Tribe declined comment on the project. No further communication was received from the other tribes from whom consultation was requested within the 30-day notification period. The County sent consultation closure notices to Middletown Rancheria and the Mishewal Wappo Tribe of Alexander Valley on February 17, 2023, no closure letter was sent to Yocha Dehe Wintun Nation as they had responded to the Notice and noted that the project site was not located within their territories. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

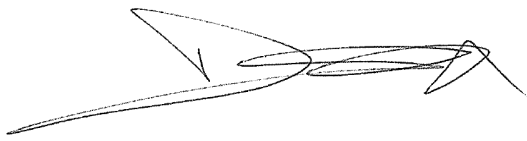
The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received,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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with ECP #P22-00289-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 the PBES Current Project Explorer Webpage:

- PPI Engineering, January 2022, Austin Peterson, 3496 Soda Canyon Road, Erosion Control Plan (**Exhibit A**)
- MIG, Inc., February 2022, Biological Resources Survey, 3496 Soda Canyon Road Vineyard Project (**Exhibit B**)
- PPI Engineering, April 2023, Tree Canopy Preservation, 3496 Soda Canyon Road, Erosion Control Plan (**Exhibit B-1**)

- PPI Engineering, April 2023, Updated 3:1 Tree Preservation Calculations, Austin Peterson ECP (**Exhibit B-2**)
- RGH Consultants, November 2, 2021 (Revised January 31, 2022), Landslide Hazard Evaluation, Peterson Vineyard Development, 3496 Soda Canyon Road, Napa, California (**Exhibit C**)
- PPI Engineering, January 20, 2022, Austin Peterson Track I ECP, 3496 Soda Canyon Road, APN 032-500-025, Soil Loss Analysis (**Exhibit D**)
- Richard C. Slade and Associates LLC, January 26, 2022, Results of Napa County Tier 1 Water Availability Analysis, Peterson Vineyard Development Project, 3496 Soda Canyon Road, Soda Canyon Area, Napa County, California (**Exhibit E-1**)
- Richard C. Slade and Associates LLC, November 30, 2022, Addendum Memorandum, Preparation of Napa County Tier 3 Water Availability Analysis, Peterson Vineyard Development Project, Napa County APN 032-500-025, 3496 Soda Canyon Road, Soda Canyon Area, Napa County, California (**Exhibit E-2**)
- PPI Engineering, January 20, 2022, Austin Peterson Track I ECP, APN 032-500-025, Hydrologic Analysis (**Exhibit F**)
- Project Revision Statement (**Exhibit G**)
- Application Submittal Materials and Correspondence (**Exhibit H**)
- Archaeological Services, Inc., June 25, 2013, Cultural Resource Reconnaissance of 14+/- Acres Near Foss Valley, Napa County, California (APN 032-500-025)
- Site inspection conducted by Napa County Planning Division staff (Dana Morrison) on September 23, 2022
- Napa County Geographic Information System (GIS) sensitivity maps/layers

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

Dana Morrison
Printed Name

July 19, 2023

Date

Napa County Planning, Building and Environmental Services

ENVIRONMENTAL CHECKLIST FORM

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

Discussion

a-b. The project site is not located within a scenic corridor (Napa County GIS, Scenic Corridors Layer). Additionally, any visual impacts related to construction equipment and activities at the development area would be short-term and temporary in nature.

Existing vineyards are located in the vicinity of the project site. As described in **Section IV (Biological Resources)**, 75% of the existing tree canopy onsite would be preserved, and 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 site. There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Additionally, the project site is not located within the vicinity of an officially designated state scenic highway (California State Scenic Highway System Map). Therefore, for the reasons described above, the proposed project would have a less-than-significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops.

- c. The proposed project would result in the removal of existing vegetation within the development area and includes the development of new vineyard. The proposed project is consistent with the Napa County AWOS land use designations and with adjacent land uses, which include other vineyards, wineries, and rural residential uses. Additionally, as discussed in **Section IV [Biological Resources]** below, tree removal occurring as part of project construction which would not 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 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 from 10 p.m. to 2 a.m.) approximately four (4) days per year. The proposed project would include sulfur applications that could occur between 12 a.m. and 6 a.m. approximately eight days per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses. Therefore, the proposed project would result in a less-than-significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The project site is mapped as Grazing Land by the California Department of Conservation. The proposed project would result in an increase in agricultural land from a previously vacant use onsite; therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be a less-than-significant impact.
- b. The project site has an AWOS General Plan designation and is zoned AW. Therefore, the establishment of vineyard totaling approximately 7.2 gross acres (5.3 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, implementation of the proposed project would not change the primary agricultural activity within the development area and the proposed project would not conflict with its land use designation or a Williamson Act contract. This impact would be less than significant.
- 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 (1) or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined in California Public Resource Code Section 4526 as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forests products, including Christmas Trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others." The project site does not contain forest land or coniferous forest (Napa County GIS). The project site is zoned as AW and is not zoned as 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.

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

Discussion¹

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

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These guidelines were updated in May 2017 to address the California Supreme Court’s 2015 opinion in *Cal. Bkdg. Indus. Ass’n vs. Bay Area Air Quality Mgmt. Dist.*, 62 Ca 4th 369. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the BAAQMD website and included in the BAAQMD updated CEQA Guidelines (BAAQMD CEQA Guidelines, May 2017). 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 proposed 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 proposed project. However, the thresholds are not mandatory, and agencies should apply them only after determining that they reflect an appropriate measure of a project’s impacts.

The Guidelines for implementation of the thresholds are for information purposes only to assist local agencies. Recommendations in the Guidelines are advisory and should be followed by local governments at their own discretion. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or the Air District to any specific course of regulatory action.

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

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 2022². 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).

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

² [Microsoft Word - FINAL CEQA Thresholds Report for Climate Impacts 03 30 22 revisions with tracked changes \(baaqmd.gov\)](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en): <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en>

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

The potential impacts associated with implementation and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with guidance provided by BAAQMD (2017). 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 (2) and a half micrometers or less (PM₁₀ and PM_{2.5}).

The thresholds of significance for use in determining whether a proposed project will have a significant impact on GHG's, and climate change (BAAQMD, April 2022) did not affect the Air Quality CEQA Thresholds of Significance for the above-mentioned air pollutants (i.e., ROG, NO_x, PM₁₀ and PM_{2.5}) identified in Table 2-1 of the BAAQMD 2017 Guidelines. As such, those thresholds will be used to determine the significance of potential air quality impacts associated with air pollutant emissions. These air pollutant thresholds of significance are identified in **Table 3** below.

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 (1) 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.

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 (3) certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards³ for an approximately 560-acre vineyard development, Walt Ranch Vineyard⁴ for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards⁵ for an approximately 400-acre vineyard development⁶.

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

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

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

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

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

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

Table 3 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO _x	PM _{2.5}	PM ₁₀
	Construction Emissions			
Pounds per day: 150-acre vineyard 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.

Variations or similarities in emissions modeling results between the three (3) projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as quantities and types of vegetation to be removed, construction trips, construction equipment and duration of use/operation, and operational equipment operation and trips.

Because the proposed project's 7.2 gross acre vineyard (approximately 5.3 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less than those identified in **Table 3** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project.

Air Quality – Conditions of Approval:

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two (2) times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB)

registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ⁷ or the PERP website⁸.

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

- c-d. Land uses such as schools, playgrounds, childcare 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 project site include rural residential, vineyards, wineries, wooded areas, and undeveloped land. The project site consists of approximately 14.3 acres of land and existing facilities include an abandoned residence and a water tower structure, both of which are no longer in use, an active groundwater well and two (2) inactive wells, and an existing breached reservoir. The closest school is located approximately five (5) miles southwest of the project site (Yountville Elementary School – school is closed and is no longer operating) within the town of Yountville (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 417 feet northwest, 960 feet west, 530 feet south, and 730 feet and 1,250 feet north of the project site.

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, bulldozers, and an excavator). These sources would be temporary and/or seasonal in nature and would occur approximately five (5) miles from the closest school and approximately 417 feet from the nearest residence, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors. Therefore, impacts would be less than significant.

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

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

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

Discussion

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

- MIG, Inc., February 2022, Biological Resources Survey, 3496 Soda Canyon Road Vineyard Project (**Exhibit B**)
- PPI, Inc., April 2023, Tree Canopy Preservation Area, 3496 Soda Canyon Road (**Exhibit B-1**)

MIG conducted an assessment of biological resources present or potentially present on the project site on March 28, 2013, December 18, 2015, April 3, 2017, April 16, 2018, June 13, 2018, and in February and June 2022. The surveys documented: land cover type (e.g., terrestrial communities, aquatic resources); suitable habitat for any special-status plant or wildlife species; and the presence of any other sensitive natural resources protected by local, state, or federal laws and regulations.

The survey dates corresponded to blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project site. The field surveys were conducted by qualified biologists familiar with the resources of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines (CNPS, 2001; CDFW, 2018; USFWS, 1996). Plants were identified using *A Manual of California Vegetation Online* (Sawyer et al., 2009), California Native Plant Society's electronic *Inventory of Rare and Endangered Plants* (CNPS 2022), *The Jepson Manual: Vascular Plants of California, 2nd Edition* (Baldwin, et al, 2012), amongst other consulted sources, to the taxonomic level necessary to determine whether they were rare.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project site was compiled based on data in the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2020) for the Yountville, Rutherford, Saint Helena, Chiles Valley, Sonoma, Napa, Walter Springs, Mount George, Capell Valley, Cuttings Wharf, Sears Point, Petaluma River, Cordelia, Kenwood, Calistoga, Glen Ellen, Aetna Springs, and Lake Berryessa USGS 7.5-minute topographic quadrangles, as well as personal communication with CDFW personnel, citizen science databases such as ebird and inaturalist, VegCamp maps, and the Napa County *Baseline Data Report* (Napa County, 2005). The U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species and Critical Habitat record was also searched for the project site (USFWS, 2022).

The project site consists of the following biological communities (or habitat types): blue oak woodland, California annual grassland, white leaf manzanita chaparral, as well as a breached reservoir and ephemeral drainages. There is also an abandoned residence on the project site. The habitats and their acreages are shown in **Table 4**.

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

Biological Communities or Habitat Type	Approximate Pre-Project Conditions (acres) ¹	Approximate Acreage in the Development Area
California Annual Grassland	2.5	0.3
Blue Oak Woodland	4.9	0.8
White Leaf Manzanita Chaparral	6.8	6.1
Total	14.2	7.2

¹ Acreages of the ephemeral drainages, abandoned residence and breached reservoir in the project site were not calculated in the Biological Resources Reconnaissance Survey Report (**Exhibit B**).
Source: MIG, February 2022 (**Exhibit B**)

- a. **Special-Status Plants:** Based upon a review of the resource databases listed in **Exhibit B** (Table 3), 39 special-status plant species have the potential to occur in the vicinity of the project site. Seven (7) of these plants have a moderate to high potential to occur within the project site and one (1) plant, holly-leaved ceanothus (*Ceanothus purpureus*), is present within the white leaf manzanita chaparral habitat in the project site. Additionally, although not all white leaf manzanita chaparral is sensitive, the white leaf manzanita chaparral in the southwest corner of the project site includes an additional species (Sonoma sage, *Salvia sonomensis*), as a sub-dominant plant species, which qualifies it as a sensitive vegetation association under the alliance in VegCAMP (MIG, February 2022; **Exhibit B**).

Holly-leaved ceanothus is a perennial shrub in the buckthorn family (Rhamnaceae). It is endemic to northern California, where it is known only from the inner north coast ranges north of the Bay Area, mainly in Sonoma and Napa counties. It generally grows in volcanic substrates in chaparral habitat. It blooms from February to April. Approximately 115 individuals were documented within the project site, including approximately 96 individuals that occur within proposed Block 1 (MIG, February 2022; **Exhibit B**).

Holly-leaved ceanothus is a CNPS California Rare Plant Rank (CRPR) List 1B.2 species, which is considered "Rare, Threatened, or Endangered in California and Elsewhere" and is fairly threatened in California (i.e., moderate degree/immediacy of threat). CRPR List 1B species meet the definition of Section 1901, Chapter 10 of the Native Plant Protection Act, or Sections 2062 and 2067 of the California Endangered Species act of the California Fish and Game Code (CFGF) and are eligible for state listing. While holly-leaved ceanothus is not state or federally listed species at this time, this species and its associated habitat are of limited distribution locally within Napa County and warrant protection through applicable General Plan Goals and Policies.

Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is encouraged by Napa County General Plan Goal CON-3.⁹ Additionally, pursuant to Napa County General Plan Policy CON-13,¹⁰ 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 remove approximately 83% of the special-status plants and/or populations occurring within the project site. Furthermore, because the site's white leaf manzanita chaparral habitat contains a special-status species (holly-leaved ceanothus), this habitat is also considered to be potential special-status species habitat, because it contains the biological and ecological characteristics necessary to support this plant species, in addition to containing the special-status plant species population and individuals. The project site contains approximately 6.8 acres of white leaf manzanita chaparral, with 6.1 acres occurring in the proposed development area. The project as proposed would remove approximately 6.1 acres of the project site's 6.8 acres (or 90%) of potential special-status plant species habitat. This, in conjunction with the removal of approximately 83% of the individual special-status plants within the project site, would be a significant impact.

The removal of this special-status plant species and its habitat would also be inconsistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-3 as it does not protect for the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be avoided while allowing for up to approximately 7.2 acres of agriculture on the project site (as further disclosed and assessed below); Policy CON-17¹¹ because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is not prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it does not preserve natural habitat or existing vegetation, and adversely affects sensitive, rare, threatened or endangered plants. This would also be a significant impact.

Specific to oak woodland, Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habitat, slope stabilization, soil protection and species diversity. Policy CON 24c¹², specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. The project site contains approximately 4.5 acres of blue oak woodland, with 0.8 acre occurring in the proposed development area. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy CON-24c, 2:1 preservation ratio, approximately 1.6 acres can be converted to vineyard to comply with this policy. Therefore, the project's proposed conversion of 0.8 acre of blue oak woodland would minimize potential impacts to oak woodlands and comply with policy directives. Specific to canopy cover, NCC Section 18.108.020 (D) states that in the AW zoning district, the removal of any vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. See the disclosure and **Mitigation Measure BIO-1** and question e below for further discussion.

To reduce potential impacts to oak woodlands to a less-than-significant level **Mitigation Measure BIO-1** would be implemented to retain associated habitat.

Mitigation Measure BIO-1: The Owner/Applicant, prior to approval, shall revise #P22-00289-ECPA to include the following provisions to reduce potential impacts to oak woodland and achieve consistency with the Napa County Conservation Regulations 18.108:

- a. A Preservation Area (consistent with **Exhibit B-1**) totaling 2.4 acres located outside of the boundaries of the existing and proposed developed area shall be designated as such in a deed restriction or conservation 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 applicant shall record the deed restriction or conservation easement prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved

⁹ 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.

¹⁰ 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.

¹¹ Policy CON 17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards: Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

¹² Policy CON 24(c): Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ration when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

shall be of like kind and quality to the coniferous forest being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property, protects special-status species such as the redwood lily populations; 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 project site (typically within approximately 50-feet of the project site). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. 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 #P22-00289-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.

Implementation of **Mitigation Measure BIO-1** would reduce impacts to blue oak woodland to a less-than-significant level in that it would: i) avoid and preserve approximately 75% of the project site's blue oak woodland, ii) result in consistency with General Plan Goal CON-3, Policies CON-13 and CON-17, and Conservation Regulations (NCC Chapter 18.108), because it would preserve the oak woodland and their habitat, and iii) result in consistency with Goal CON-2¹¹ because it would assist in maintaining the existing level of biodiversity in the County, as well as contribute to minimization of potential cumulative impacts associated with the loss of special-status plant species and associated habitat due to agricultural conversion projects.

As proposed the project has the potential to negatively impact Holly-leaved ceanothus. With the implementation of **Mitigation Measure BIO-2**, the western and southern boundaries of proposed Block 1 will be revised to avoid occurrences of holly-leaved ceanothus. Impacted plants within the proposed Block 1 would be required to be replanted at a 2:1 ratio according to a replanting and maintenance plan submitted to the County prior to project development. Maintaining the connectivity with other onsite holly-leaved ceanothus individuals would provide for continued cross-pollination and gene flow between these on-site special-status plant populations/individuals and habitat. Retention of the special-status plants and connected habitat within the project site and area are expected to maintain viable populations both on the property and more broadly in the region and reduce potential cumulative impacts to a less than significant level. **Mitigation Measure BIO-2** also requires the flagging of plant populations adjacent to the proposed clearing limits to prevent inadvertent impacts.

Implementation of **Mitigation Measure BIO-2** would require revisions to the western and southern boundary, thereby reducing the overall size of Block 1, such that the Holly-leaved ceanothus identified by the project biologist is avoided and protected with a minimum 25-foot buffer and would require demarcation and replacement for inadvertent removal. Implementation of **Mitigation Measure BIO-2** would reduce potential direct and indirect impacts to special-status plant species and associated habitat to a less than significant level, and result in consistency with applicable General Plan goals and policies.

Mitigation Measure BIO-2: The owner/permittee shall implement the following measures to minimize potential impacts to special-status plant species (i.e., holly-leaved ceanothus) and its habitat such that a minimum of 80% of the identified population are preserved on the property, as follows:

- a. Revise Erosion Control Plan #P22-00289-ECPA prior to approval to avoid the holly-leaved ceanothus plants/populations within the western and southern portions of Block 1, and provide them a 25-foot buffer, consistent with the intent of the modified block configurations detailed in **Figure 4**.
- b. Prior to the commencement of earthmoving activities associated with #P22-00289-ECPA, the clearing limits shall be accurately flagged by an engineer using GPS equipment, and the vineyard boundary demarcated with temporary construction flagging/fencing. Those populations immediately adjacent to the vineyard boundary shall be demarcated with construction flagging or fencing, and incursions into the boundary shall be conducted only by qualified personnel. The precise locations of

¹¹ Goal CON-2: Maintain and enhance the existing level of biodiversity.

said demarcation shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No equipment or materials shall be laid down in or near the boundary. Any remediation seed mixes for bare ground should not contain species known to be aggressive weeds; non-native grasses shall be sterile varieties. The flagging/fencing may be removed following construction; however, signage at regular intervals shall be installed informing vineyard personnel of the sensitivity of the Preservation Areas and herbicide use shall be limited to those products that pose no negative affect to forbs (i.e., holly-leaved ceanothus).

- c. The avoided plants/populations and 25-foot buffer shall be demarcated with construction flagging/fencing by a qualified biologist before construction. The precise locations of the construction fencing shall be inspected and approved by the County prior to the commencement of project activities. No equipment or materials shall be laid down in or near the boundary.
- d. In accordance with Napa County Code Section 18.108.100, Erosion hazard areas – Vegetation preservation and replacement) any narrow-anthered brodiaea plants/populations inadvertently removed as a result of vineyard development authorized under #P22-00289-ECPA shall be replaced on-site at a ratio of 2:1 at locations within similar habitat. For such removal, a replacement plan shall be prepared by a qualified botanist or ecologist for review and approval by the Director prior to vineyard planting. At a minimum, the replacement plan shall include i) a site plan showing the locations where replacement plants will be planted, ii) a plant pallet composed of the special-status plant species being removed including sizes and/or application rates: seed mixes shall not contain species known to be noxious weeds and any non-native grasses should be sterile varieties, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation schedule, vi) performance standards with a minimum success rate of 80%, and vii) a monitoring schedule for a period of at least three years to ensure success criteria are met.
- e. The Owner/Permittee shall permanently preserve holly-leaved ceanothus and associated habitat within the property as outlined in **Figure 4**. The Preservation Area for this special status species shall be designated for preservation in a deed restriction or conservation mitigation easement or other mean of permanent protection acceptable to the County. Land place in protection shall be restricted from development and other uses that could degrade the quality of the Preservation Area 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 enforceable restriction within 90 days of approval of #P22-00289-ECPA by the County; in no case shall earthmoving activities commence until said enforceable restriction is recorded.

Special-Status Animals: Based upon a review of the resource databases listed in **Exhibit B** (Table 3), 17 special-status animal species have the potential to occur in the vicinity of the project site. Four (4) of these (California red-legged frog [*Rana draytonii*], CRLF; foothill yellow-legged frog [*Rana boylei*, FYLF]; white-tailed kite [*Elanus leucurus*]; and pallid bat [*Antrozous pallidus*]) have a potential to occur within the project site and are discussed in further detail below.

CRLF is federally listed as threatened and is designated by the state as a Species of Special Concern. CRLF occurs in different habitats depending on life stage, season, and weather conditions. It typically uses a variety of aquatic habitats (e.g., ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, perennial creeks, artificial ponds, marshes, dune ponds, and lagoons), as well as riparian and upland habitats. The common factor among habitats where CRLF occurs is the association with a perennial water source, ideally free of non-native predators. The project site is 5 miles from the nearest known location of CRLF and does not contain viable breeding habitat for this species. It is very unlikely that CRLF occur on the project site, as there is no perennial water onsite, and other suitable habitat features are not present. CRLF tadpoles or adults were not observed in the breached reservoir during site the biological resources surveys (MIG, February 2022; **Exhibit B**).

FYLF is proposed for federal listing as Threatened and is a California Species of Special Concern. It inhabits partly shaded, shallow streams and riffles in a variety of habitats, but requires permanent water and does not migrate between ponds like CRLF does. FYLF occurrences have been documented within 5 miles of the project site, but permanent aquatic habitat is not present on the project site or nearby, and this species is not expected to occur there (MIG, February 2022; **Exhibit B**).

The white-tailed kite is a medium-sized raptor that is found throughout the United States and resides and breeds in California. White-tailed kite is found year-round in Napa County. This species forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands and uses trees with dense canopies for cover. It makes a nest of loosely-piled sticks and twigs lined with grass, straw, or rootlets. Nests are placed near the top of a tree in a dense canopy of oak, willow, or other tree strands, and are usually located near an open foraging area. The project site contains marginal hunting and foraging habitat for this species. There is a moderate potential for white-tailed kite to occur within the project site since suitable nesting habitat exists given the proximity of the project site to agricultural land and the presence of oak woodland with a dense canopy cover (MIG, February 2022; **Exhibit B**).

Other migratory birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Game Code may also nest onsite, as the project site contains a variety of nesting habitat, including grassland, chaparral, and oak woodland. Numerous passerine birds were noted during the biologists' site visits, and ample nesting materials and nesting sites occur on the project site.

The pallid bat is a large bat with prominent ears. Pallid bats are found throughout the Western United States, from California to Texas. Pallid bats roost alone, in small groups or gregariously in crevices in trees or ricks. They will roost in human structures as well, and have been found low to the ground, as well as high up in trees or in rocks. However, they are sensitive to human disturbance. Pallid bats forage in open forests and grasslands. The biological reconnaissance surveys identified potential roost sites within tree cavities, the abandoned residence and the wooden water tower on the project site. However, no bats or sign of bats were found. There is a moderate potential for pallid bats to occur within the project site given nearby documented occurrences and the presence of suitable roost sites. There are over 30 trees on the project site with cavities potentially suitable for bat use (MIG, February 2022; **Exhibit B**).

Other bat species could also be found on the project site in the abandoned structures and the foliage of oak trees.

The existing breached reservoir in proposed Block 1 potentially creates a population sink for amphibians that require ponded water into late summer/early fall to complete metamorphosis, including special-status amphibians if they should ever occur on the project site. The proposed project includes removing the embankment of the reservoir and grading the area to match the surrounding elevations. Potential direct and indirect impacts to CRLF and FYLF from the proposed project would be significant.

White-tailed kite and other migratory birds and raptors have the potential to nest within the trees within and adjacent to the development area. Temporary and intermittent increases in noise levels during construction may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. This is considered a potentially significant impact.

No evidence of bats was found during the field surveys; however, there are over 30 trees on the project site with cavities potentially suitable for bat use. Impacts to special-status bat species during project construction would be a significant impact.

Potentially significant and significant impacts to special-status animals would be reduced to less-than-significant levels through the implementation of **Mitigation Measures BIO-3** through **BIO-5**, described below.

Mitigation Measure BIO-3: The owner/permittee shall revise Erosion Control Plan #P22-00289-ECPA prior to approval to include the following measures to minimize potential impacts on CRLF and FYLF:

- a. A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a pre-construction survey to identify determine if the breached reservoir and streams in the project site are wetted. The survey shall be conducted at least 7 days in advance of project initiation. A copy of the survey findings shall be provided to the Napa County Conservation Division, USFWS and CDFW prior to commencement of work.
- b. If the breached reservoir and streams are wet during the pre-construction survey, the qualified biologist shall conduct two (2) surveys along the ephemeral streams and reservoir at least 14 days prior to project initiation. The surveys must have remarkably different light angles (e.g., early morning and early afternoon), but can be conducted on the same day. Survey areas (streams and reservoir periphery) will be systematically walked upstream, zigzagging between the bank and the thalweg in wide areas, and bank-to-bank in narrow areas. All areas that could support frogs will be searched, including rocks, ledges, woody debris, overhanging vegetation, etc. as well as accessible natural cover within 50 feet of the wetted perimeter where frogs could be present. The qualified biologist will use binoculars to reduce disturbing frogs and flashlights for searching darkened crevices and shaded areas. Slow-moving and/or still waters will be closely inspected for the presence of tadpoles. If no CRLF and FYLF are present during the pre-construction survey, no additional measures are warranted.
- c. If CRLF or FYLF are present, one (1) daytime survey shall be completed within 48 hours of project initiation. If CRLF or FYLF are or will likely be present at the time of ground-breaking, protective measures such as installation of exclusion fencing, presence of an on-site biologist during ground disturbance activities, and implementation of a worker education program, shall be implemented. Exclusion fencing will be installed along the inhabited areas immediately adjacent to the proposed vineyard blocks, extending 100 feet beyond the terminus of the proposed vineyard blocks in each direction. The on-site biologist will be present to perform a survey of the vineyard blocks in the morning prior to that day's ground-breaking activities. If a CRLF or FYLF is present within the vineyard block, individual frogs shall be allowed to leave the disturbance area of their own accord, as confirmed by the biologist. Alternatively, other measures shall be derived and approved in coordination with USFWS and CDFW. The worker education program will consist of a qualified biologist providing construction personnel with information regarding the identification and ecology of CRLF and FYLF, the potential for occurrence of the species within work areas, the legal status of the species and ramifications for take, the specific measures being implemented to avoid impacts to CRLF and FYLF, and the role of the on-site biologist.

Mitigation Measure BIO-4: The owner/permittee shall revise Erosion Control Plan #P22-00289-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 September 15 – NCC Section 18.108.027(C), and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the development area, and where there is potential for impacts adjacent to the development area (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than 7 days prior to when 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 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 7 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
- e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

Mitigation Measure BIO-5: The owner/permittee shall revise Erosion Control Plan #P22-00289-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status bat species:

- a. Bat habitat tree removal and trimming between August 31 through October 15, and March 1 to April 15: Under the supervision of a qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying), bat habitat trees shall be removed or trimmed in a two-phased system conducted over two (2) consecutive days. The first day (in the afternoon), limbs and branches will be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures will be avoided, and only branches or limbs without those features will be removed. On the second day, the entire tree will be removed. All felled trees shall remain on the ground for at least 24 hours prior to disposal to allow any present bats within the trees to escape.
 - b. Bat habitat tree removal or trimming between October 16 and February 28/29 of the following year or between April 16 and August 30: A qualified biologist shall conduct pre-construction survey within 14 days of project initiation to determine absence or presence of special-status bat species. A copy of the survey results shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present removal can proceed. If bats are found to be present a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Planning Division and CDFW. The removal or exclusion plan shall be reviewed and authorized by the County Planning Division and implemented prior to commencement of the ECPA.
- b-c. The project site contains two (2) ephemeral drainages that are not proposed to be impacted by project activities. The drainages are considered sensitive aquatic resources and have been avoided with minimum 35-foot setbacks in accordance with NCC Section 18.108.025. The proposed project has also been designed to maintain existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soils loss or runoff as compared to existing conditions). Therefore, the proposed project would not result in a significant impact to the ephemeral drainages.

The project site also contains blue oak woodland, which is considered a sensitive habitat, and the white leaf manzanita chaparral in the southwest corner of the project site includes a sensitive vegetation association under the alliance. Blue oak woodland occurs on valley bottoms, foothills, and rocky outcrops underlain by moderately to excessively drained shallow, rocky, low-fertile substrate. The project site contains approximately 4.9 acres of blue oak woodland, with 0.8 acre occurring in the development area (approximately 16% of the total community type on the project site).

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

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

With the implementation of **Mitigation Measure BIO-1**, impacts to blue oak woodland would be reduced to a less-than-significant level by permanently preserving 1.68 acres of woodland onsite (consistent with the 2:1 preservation ratio requirement) and with **Mitigation Measure BIO-2** impacts to the white leaf manzanita chaparral in the southwest corner of the project site would be reduced to a less-than-significant level by revising the western and southern boundaries of proposed Block 1 to avoid occurrences of holly-leaved ceanothus occurring in white leaf manzanita chaparral. The applicant shall submit a revised ECP Plan set and replanting and maintenance plan for holly-leaved ceanothus prior to project approval.

- d. The proposed project involves the installation of vineyard totaling approximately 7.2 gross acres (5.3 net acres) across a single parcel comprising the project site. Existing wildlife exclusion fencing surrounds the project site. No additional fencing is proposed as part of the project.

The project site is not located within a mapped wildlife corridor identified in the Napa County Baseline Data Report. For local diurnal movement (daily movement between sources of food, cover, and water), wildlife generally follows stream courses when moving up and down slopes and use adjacent habitats (often preferring woodlands) for cover, browse, or hunting. The actual width of usable corridors would continually change based on the density of vegetation, steepness of adjacent slopes or presence of unsuitable habitat such as fenced vineyards and residential areas. Due primarily to the steepness of the slopes in this segment of the Mayacamas Range, the majority of the forests and woodland here remain undisturbed by agricultural and residential development. This continuous woodland and forest is accessed through the principal undeveloped canyons and associated watercourses. Due to extensive agricultural and residential development within the Napa Valley, access to the Napa River along the eastern edge of the valley and to the Howell Mountain Range beyond is limited to a few remaining drainages that have retained at least a portion of their adjacent riparian habitat. Wildlife likely utilize the natural habitat present within the project site for movement between other nearby natural habitats; however, the project site has long been fenced, limiting access to larger mammals, so they have likely developed patterns of travel that do not depend on the project site. Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because they are temporary and because of the limited scale of the project. The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife nursery sites were not identified in the project site, and there would thus be no impacts to wildlife nursery sites. Impacts to wildlife movement, habitat use and availability, and vegetation removal would be less than significant.

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 Erosion Control Plan #P22-000289-ECP prior to its approval to include wildlife exclusion fencing detail that shall include the following components:

- a. 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.
 - b. 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.
 - c. Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P22-00289-ECP-Exemption 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 survey, the development area contains a total of 0.3 acre of California annual grassland, 0.8 acre of blue oak woodland, and 6.1 acres of white leaf manzanita chaparral. The proposed project would result in the removal of approximately 138 trees with dbh greater than 6 inches onsite.

Because the project site is located in the Rector Reservoir Sensitive Domestic Water Supply Drainage, pursuant to NCC Section 18.108.027(B) (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 60% of the tree canopy and a minimum of 40% of the grass/brush cover existing on the parcel in 1993 is required to be retained as part of the project. Based on information provided in the ECP (Appendix C of **Exhibit A**), the project site contained 3.6 acres of tree canopy cover and 9.8 acres of brush/shrub cover in

1993. The proposed project would remove 0.7 acre of tree canopy cover that existed in 1993 and 5.9 acres of brush/shrub cover subject to Section 18.108.027(B), which would result in the retention of approximately 81% of the tree canopy cover and 40% of the brush/shrub cover in 1993. Therefore, the proposed project would be in compliance with Section 18.108.027(B).

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. More specifically, this Conservation Policy strives to: preserve oak trees and other significant vegetation that occurs near the heads of drainages to maintain diversity of vegetation types and wildlife habitat (CON-24a); achieve comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain existing oak woodland (CON-24b); and provide replacement of lost oak woodlands or preservation of like habitat (on an acreage basis) at a 2:1 ratio, and avoid removal of oak species that are limited in distribution (CON-24c). While Douglas fir forest contains oak trees as sub-dominant species, the property does not contain oak woodland, and is therefore in compliance with Policy CON-24. As discussed in **Section II, Agricultural and Forest Resources**, the Douglas fir forest is considered to be timberland falling under the jurisdiction of CAL FIRE and requiring a Timber Harvest Plan (THP) and Timber Conversion Permit (TCP). A registered professional forester (RPF) is working concurrently to develop and submit a THP and TCP.

The Conservation Regulations (Napa County Code Chapter 18.108) intent and purpose is to preserve the natural resources of the County and provide greater environmental protection for natural environmental resources, particularly agricultural lands, forests, wildlife habitat, and water. Additionally, the Conservation Regulations strive to accomplish the following: minimize cut, fill, earthmoving, grading operations and other such man-made effects in the natural terrain; preserve natural habitat by controlling development near streams, rivers and wetlands; minimize impacts on existing landforms by avoiding steep slopes and preserving existing vegetation; and reduce the loss of vegetation by protecting vegetation canopy cover and requiring minimum mitigation requirements.

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 cover based on the on-site canopy present on June 16, 2016.

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 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 enforceable restricted) through a perpetual protective easement or deed restriction preserving and conserving the preserved vegetation canopy cover.

To comply with NCC Section 18.108.020 (D), for development in an AW zoning district, a minimum 3:1 vegetation canopy cover is required for permanent preservation. Implementation of **Mitigation Measure BIO-1** would result in the permanent protection and preservation of a minimum of 2.4 acres of blue oak woodland. Mitigation Measure BIO-2 would result in the permanent protection and preservations of 80% of the holly-leaved ceanothus.

Areas adjacent to the development area include oak woodland. To ensure that no trees are inadvertently removed as part of the project, and because the project will also be subject to the provisions of Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement), the following provisions will be included as conditions of approval should the proposed project be approved:

Tree/Woodland Protection – Conditions of Approval:

- a. 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). No trees are proposed for removal within 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.
- b. Trees removed shall be replaced onsite with fifteen-gallon trees at a ratio of 2:1 at locations approved by the director.
- c. The owner/permittee shall refrain from severely trimming the trees and vegetation to be retained adjacent to the vineyard conversion area.

The project as proposed does include a mechanism for permanent preservation as required by NCC Section 18.108.020.E and to meet the newly required not net increase in greenhouse gas emissions; therefore, the project, as proposed is consistent with NCC Section 18.108.020(E). The project proposes to permanently preserve approximately 2.52 acres of existing woodland (**Exhibit B-2**).

Implementation of the proposed **Permanent Preservation - Condition of Approval** requires that the vegetation canopy cover area be recorded in a deed restriction or conservation easement to permanently restrict development from the areas indicated in the Vegetation Canopy Cover Preservation Area consistent with Section 18.108.020.E. With implementation of this Condition of approval, the project will be consistent.

Permanent Preservation – Condition of Approval: The Owner/Permittee shall record permanent preservation area for the Blue Oak Vegetation Canopy Preservation as detailed in **Exhibit B-1** to achieve consistency with the NCC Section s 18.108.020.E, additionally the applicant shall record permanent preservation area for the Holly-leaved ceanothus preservation as detailed in **Figure 4**:

- a. A Vegetation Canopy Cover Preservation Area (consistent 18.108.020(E) 2.52 acres of vegetation canopy cover, located outside of the boundaries of the existing and proposed developed area shall be designated as such in a deed restriction or conservation 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 easement prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property, 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 project site (typically within approximately 50-feet of the project site). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. 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 #P22-00289-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 percent 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.
- e. The Owner/Permittee shall permanently preserve holly-leaved ceanothus and associated habitat within the property as outlined in **Figure 4**. The Preservation Area for this special status species shall be designated for preservation in a deed restriction or conservation mitigation easement or other mean of permanent protection acceptable to the County. Land place in protection shall be restricted from development and other uses hat could degrade the quality of the Preservation Area 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 enforceable restriction within 90 days of approval of #P22-00289-ECPA by the County; in no case shall earthmoving activities commence until said enforceable restriction is recorded.

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 #P22-00289-ECP 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 (3) years to ensure an 80 percent 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 the identified mitigation measures and 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.

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

Discussion

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

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

- Archaeological Services, Inc., June 25, 2013, Cultural Resource Reconnaissance of 14+/- Acres Near Foss Valley, Napa County, California (APN 032-500-025)

Archaeological Services, Inc. conducted a cultural resources study for the project site which included archival research at the California Historical Resources Information System (CHRIS) Northwest Information Center, Sonoma State University, as well as *The Directory of Properties in the Historic Property Data File for Napa County* maintained by the Office of Historic Preservation, and consultation with the Native American Heritage Commission for a search of the sacred land file 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 structures; and a surface reconnaissance survey of the development area (14 acres total surveyed) to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

- a-b. The cultural resources study (Archaeological Services, Inc., June 2013) identified two (2) cultural resources within the project site, outside the development area: wood water tower and remains of a rock fence. The two (2) cultural resources were recorded on a primary records form (DPR 523A) and filed with the CHRIS. The cultural resources are avoided with the design of the proposed development and no impact would occur to them.

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 at the end of this section 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.

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

Discussion

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

- a. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers' commutes to and from the project site would consume fuel. Project construction is anticipated to occur in one (1) phase lasting up to six (6) months during the year (as shown in Table 1). Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient when compared with other similar agricultural construction sites within Napa County.

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

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

With respect to transportation energy, existing energy standards are promulgated through the regulation of fuel refineries and products such as the Low Carbon Fuel Standard (LCFS), which mandated a 10% reduction in the non-biogenic carbon content of vehicle fuels by 2020. Additionally, there are other regulatory programs with emissions and fuel efficiency standards established by United States Environmental Protection Agency and the California ARB such as Pavley II/LEV III from California's Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) GHG Regulation. Further, construction sites will need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five (5) 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.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater 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 is approximately 4.9 miles west of the project site (Napa County GIS Faults Layer). 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.

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

- 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 Survey, 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) The development area is not located in an area with a mapped landslide deposit. The Landslide Hazard Evaluation performed for the project site concluded that there are no large-scale slope instabilities within the proposed vineyard blocks, and no slope failures or landslides were observed (RGH Consultants, 2021; **Exhibit C**). The evaluation report stated that if the proposed erosion control measures are installed and maintained in accordance with Napa County regulations, the risk of erosional failure at the site would be low. The impact would therefore be considered less than significant (also see question c below for additional discussion regarding slope stability and landslides).
- b. The project site is underlain by the following soil mapping units: Guenoc-Rock Outcrop complex, 5 to 30% slopes and Rock Outcrop-Hambright Complex, 50 to 75% slopes. Installation and implementation of the project would involve vegetation removal and earthmoving activities within the proposed development area. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1; in municipal watersheds like the one (1) that the project site is located in, earthmoving activities cannot be performed between September 15 and April 1 pursuant to NCC Section 18.108.027(C). 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 a minimum vegetative cover density of 80%, as specified in the ECP. For the first three (3) years, the cover crop may be disked after April 1. Each year the owner chooses to disk, the area would be straw mulched at a rate of 3,000 pounds per acre and straw wattles installed prior to September 15. A permanent seed mix would be seeded prior to September 15 of the fourth (or earlier) year. The cover crop provides the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by PPI Engineering (**Exhibit D**), the proposed conversion of approximately 7.2 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 4.81 tons per acre 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 4.18 tons per acre per year, or a reduction of approximately 17% 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	3.63	3.00	0.63	-17%
2	1.18	1.18	0.00	0%
Total	4.81	4.18	0.63	-17%

Note: The total percentage change may not calculate the same as the individual percentages due to rounding.

Source: PPI Engineering, January 2022, Soil Loss Analysis (**Exhibit D**)

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the proposed project, including soil loss experienced during vineyard and cover crop development and establishment, consist of water bars, straw wattles, straw mulching, straw bale dikes, 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 #P22-00289-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, rock filled avenues

and permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than September 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P22-00289-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have been installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.

- **Cover Crop Management/Practice:** The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no-till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80%. Cover crop may be disked between rows and sprayed under vines or otherwise cultivated after April 1; after three (3) years a permanent, no-till cover shall be established. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

For these reasons, the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project site, resulting in a less-than-significant impact with regard to soil erosion, soil loss, and sedimentation. Also see **Section IX (Hazards and Hazardous Materials)** and **Section X (Hydrology and Water Quality)** for additional disclosures related to water quality. Additionally, as shown in the soil loss modeling following development, overall soil loss is anticipated to be less than pre-development conditions. This is consistent with General Plan Conservation Element Policy CON-48, which requires post-development sediment erosion conditions (i.e., soil loss) be less than or equal to pre-development conditions.

- c. As discussed above, there are no landslides mapped within the project site. The development area is not in an area prone to 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 Guenoc-Rock Outcrop Complex which exhibits low to moderate shrink-swell potential, and Rock Outcrop-Hambright Complex which exhibits low shrink-swell potential (USDA, 1978). 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 fined shall be temporarily halted of diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate a net increase in greenhouse gas, 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).¹³ The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) *62 Cal. 4th 204). There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project’s lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

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

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

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

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

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

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 (1) number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD’s CEQA Guidelines. In this case CO₂ is used as the reference atom/compound to obtain atmospheric carbon CO₂ effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁴

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

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

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 (3) County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁵ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 7.2 gross acres of vineyard development would be approximately 67.68 MT CO_{2e} (7.2 acres multiplied by 9.4 MT CO_{2e}).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 7.2 acres of existing vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the GHG Emissions Checklist and associated carbon stock factors developed as part of the 2012 Draft CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the development area, total carbon stocks for the development area are estimated to be approximately 179.88 MT C or approximately 660.16 MT CO_{2e} (Table 6).

Table 6 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Storage/Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO _{2e}
Grassland	0.3	1.4	1.7	6.24
Oak Woodland	0.8	95.1	76.08	279.21
Chaparral (Shrublands)	6.1	16.2	98.82	362.67
Total			176.6	648.12

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

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20 to 25% while others have suggested 50%.¹⁶ Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 547.85 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}
Grassland	0.3	0.8	0.24	0.88
Oak Woodland	0.8	89.6	71.68	263.07
Chaparral (Shrublands)	6.1	12.1	73.81	270.88
Total			145.73	534.83

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

¹⁵ As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three (3) projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.

¹⁶ Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

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 7.2-acre agricultural development would be approximately 4.82 MT CO_{2e} (7.2 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of 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 0.71 MT C per year or 2.61 MT CO_{2e} per year.¹⁷

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 615.53 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 7.46 MT CO_{2e} per year (**Table 8**).

Table 8 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of CO _{2e}		Annual Ongoing Emissions in Metric Tons of CO _{2e}	
Source	Quantity	Source	Quantity
Vehicles and Equipment	67.68	Vehicles and Equipment	4.82
Vegetation and Soil	534.83	Loss of Sequestration	2.61
Total	602.51	Total	7.43

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 602.51 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 0.06% 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 of 80%, 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

¹⁷ 0.8 acres of oak woodland times 0.425 MT C = 0.34 MT C, and 6.4 acres of grassland and chaparral times 0.057 MT C=0.37, totaling 0.71 MT C

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 7.43 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 retain approximately 81% of the tree canopy that existed on the parcel in 1993. With implementation of **Mitigation Measure BIO-1**, the project would result in the permanent preservation of approximately 2.52 acres of oak woodland located on developable land (i.e., outside of stream setbacks and on land with slopes less than 30%) pursuant to the 3:1 vegetation canopy cover preservation ratio 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 BIO-1**, by permanently protecting from development two (2) 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 four (4) passenger vehicle round trips and one (1) truck round trip per day (resulting in up to five (5) round trips per day) for approximately four (4) days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to four (4) passenger vehicle round trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less-than-significant impacts related to operational GHG emissions are anticipated.

Given that the proposed project would result in the permanent preservation of two (2) times the carbon-sequestering tree canopy that it proposes to remove, and that the operational vehicle miles traveled fall well below the established threshold of 110 daily trips, the project is considered to be consistent with the State's long-term climate goals of being carbon neutral by 2045; therefore, a less-than-significant impact is anticipated.

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

Discussion

a-b. Installation of the proposed 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).

Onsite mixing and storage of hazardous materials would occur at an existing facility approximately 50 feet north of proposed Block 2 (see **Exhibit A** Figure 4). Cleaning and washing of chemical application equipment would occur inside the proposed development area as needed. Fertilizers (i.e., compost, Vesta and Phytamin All Purpose) would be broadcast/distributed through the drip system up to twice a year. Mildewcides (i.e., Sonata and Sulfur Dry Flowable) would be applied up to eight (8) times a year. No pre-emergent herbicides would be used for weed management. Project staging areas would be located within the proposed clearing limits.

Two (2) ephemeral drainages bisect the project site between proposed Blocks 1 and 2, as shown in Figure 5 in **Exhibit B** (MIG, February 2022). A breached reservoir that feeds an erosional gully would be removed with the proposed project.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) there are no streams or wetlands located within 50 feet of the development area; ii) the proposed project would provide minimum setbacks buffers of 35 feet from the ephemeral drainages in conformance with code provisions; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions of approval that would further avoid and/or reduce potential impacts

associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. Impacts related to routine use, transportation, and application of hazardous materials described above are anticipated to be less than significant. The following conditions of approval would be implemented to reduce potential accidental release of hazardous materials, if the project is approved:

Hazardous Materials – Conditions of Approval:

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

- Workers shall follow manufacturer’s recommendations on use, storage and disposal of chemical products.
- Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
- During routine maintenance of equipment, properly contain and remove grease and oils.
- Discarded containers of fuel and other chemicals shall be properly disposed of.
- Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
- All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and staging areas shall occur at least 100 feet from watercourses, existing groundwater well(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, storage, and transport of hazardous materials and accidental release of hazardous materials would be less than significant.

- c. The closest school (Yountville Elementary School) is located approximately 5 miles southwest of the project site. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). Therefore, no impact would occur.
- e. The closest public airport to the project site is the Napa Airport, located over 15 miles south of the project site. No portion of the proposed project is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.
- f. During construction, there would be negligible numbers of workers visiting the project site on a temporary basis to implement the project and install vineyards. Up to eight 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 a State Fire Protection Responsibility Area identified as having very high fire severity (CalFire 2007 - <https://egis.fire.ca.gov/FHSZ/>). However, the risk of fire in vineyards is low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and the impact would be less than significant.

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

Discussion

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 the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, alteration or replacement well permits, and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel’s groundwater allocation to 0.3-acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. Because the parcel is located outside of the GSA Subbasin, a parcel specific Water Availability Analysis was performed. To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways, the County’s WAA guidance requires applicants to perform

a Tier 3 analysis for new or replacement wells, or discretionary projects that would result in an increase in groundwater demand on existing wells that are located within 1,500 feet of designated “Significant Streams.”¹⁸

The project site is located in the Rector Reservoir watershed that flows into Conn Creek, a tributary of the Napa River. 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, 2009).

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water Board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five (5) 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 plan¹⁹”; 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 (4) 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 (2) of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four (4) 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 Board²⁰.

The proposed development area is located over a minimum of 35 feet from the ephemeral drainage onsite, in accordance with NCC Section 18.108.025.

- 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 #P22-00289-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

- b. The County requires all ECPA applicants to complete necessary water analyses in order to document that sufficient water supplies are available for a proposed project. On June 28, 2011, the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC’s purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, and well pump test protocols, management objectives, and community support. The

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

¹⁹ 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.

²⁰ https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/agriculture/vineyard/

County completed a countywide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report, 2011) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan, 2013). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (2013).

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

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

The proposed vineyard would be irrigated using groundwater supplied by an existing well located in the project site. No water for frost protection or heat protection is proposed as part of the project. Further, no surface water would be used to irrigate the vineyard.

A Tier 1 Water Availability Analysis (WAA) was prepared in order to determine if the proposed increase in groundwater water demand as a result of the proposed project would result in a significant impact to groundwater supplies (RCS Associates LLC, January 2022 - **Exhibit E-1**). The WAA estimates the onsite groundwater recharge, overall availability, and both existing and proposed use, in order to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Document adopted by the County May 12, 2015. There are not any neighboring groundwater wells located within 500 feet of any of the active onsite wells; therefore, no Tier 2 WAA (i.e., a Well Interference Evaluation) is required. Groundwater is not currently used onsite. There is one (1) active water well and two (2) inactive wells in the northern portion of the project site. The project proposes 5.3 net acres of new vineyard. The proposed groundwater demand for the project site is expected to be 2.65 acre-feet per year (AF/yr) with the proposed project. For a conservative estimate, an additional 0.75 AF/yr is estimated for the abandoned residence on the project site, in the event that it is used in the future. Therefore, the total future long-term groundwater demand for the project site is 3.4 AF/yr. Water would also be required for the first three (3) years when the holly-leaved ceanothus mitigation plantings (discussed in **Mitigation Measure BIO-1**) were becoming established; however, irrigation water demand would be nominal and mitigation plantings would not require irrigation once established.

According to the County's WAA Guidelines (Napa County, 2015), if a project well is within 1,500 feet of a Significant Stream, Creek, or River, a Tier 3 WAA is required. The project well lies within 1,500 feet of Rector Creek; therefore, a Tier 3 WAA was prepared (RCS Associates LLC, November 2022 - **Exhibit E-2**). The active onsite well was found to not be hydraulically connected with Rector Creek.

Groundwater Recharge: Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the parcel that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the WAA, which uses an average annual rainfall of 38.9 inches per year over approximately 14.3 acres 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 6.4 AF/yr (see **Exhibit E-1** 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 3.4 AF/yr, which is below the estimated average annual recharge volume of 6.4 AF/yr identified in the WAA.

The WAA 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 September 2021) is approximately 70.9 AF, and a "prolonged" drought period would last six (6) years where rainfall would be 47% of the average annual rainfall.

To meet six (6) years of proposed groundwater demand for the proposed project and existing water uses, a total onsite groundwater extraction of 20.4 AF is estimated to be required for the subject property (3.4 AF/yr times six (6) years). Assuming groundwater recharge is reduced to 47% 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 18 AF (3.0 AF/yr times six (6) years). Therefore, assuming a theoretical six-year drought period during which only 47% of the average annual rainfall might occur, a conservative estimate of the total drought-period recharge at the subject property (18 AF) would be less than the estimated total onsite groundwater demand (20.4 AF) that may occur over the same six-year period. As conservatively estimated above, 70.9 AF of groundwater may currently be in storage within the rocks of the Sonoma Volcanics beneath the project site. Hence, the theoretical six-year long drought period groundwater “recharge deficit” of 2.4 AF would represent about 3% of the volume of groundwater in storage. Temporarily removing an average of approximately 0.4 AF (when that deficit is divided by six (6) years) of groundwater from storage every year during this six-year long prolonged drought may cause water levels to decline somewhat beneath the project site, but removal of such a relatively small percentage of groundwater from storage over the six-year time period would not be expected to significantly impact groundwater levels beneath the project site. Recharge that occurs during periods of average and above-average rainfall would continue to recharge the local aquifer system(s) (**Exhibit E-1**).

Considering: i) anticipated annual water use of the proposed project and project site of approximately 3.4 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 6.4 AF/yr; ii) overall water use during a theoretical six (6) year drought period (20.4 AF) would not be expected to significantly impact groundwater levels beneath the project site; 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 – Condition of Approval: This condition is implemented jointly by the Public Works and PBES Departments:

The owner/permittee shall be required (at the permittee’s expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly) for the project well. Such data shall be provided to the County, if the PBES Director determines that substantial evidence indicates that water usage is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

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

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

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

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include establishment of a no-till cover crop with vegetative cover density of 80%, 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 F** 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, straw bale dikes, and a permanent vineyard cover crop. These proposed erosion control measures 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 Hydrologic Analysis for the proposed project was prepared by PPI Engineering (January 2022 - **Exhibit F**). The development area is contained within three (3) watershed basins. The Hydrologic Analysis utilized the HydroCAD model to conclude that there would be no change in peak flow for the project watersheds (**Table 9**).

Table 9 –Hydrologic Modeling Calculations Results: Runoff Rates

	Runoff (cfs)											
	Watershed 1				Watershed 2				Watershed 3			
	Pre-project	Post-Project	Change (cfs)	% Change	Pre-project	Post-Project	Change (cfs)	% Change	Pre-project	Post-Project	Change (cfs)	% Change
2-Year Storm	6.77	6.77	0.00	0	12.36	11.76	0.60	5	5.38	5.38	0.00	0
10-Year Storm	14.56	14.56	0.00	0	25.48	24.31	1.17	5	11.87	11.87	0.00	0
50-Year Storm	23.20	23.20	0.00	0	39.78	38.07	1.71	4	19.13	19.13	0.00	0
100-Year Storm	27.00	27.00	0.00	0	46.02	44.08	1.94	4	22.34	22.34	0.00	0

Source: PPI Engineering, January 2022 (**Exhibit F**)

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 (3) years to ensure that the implemented erosion control plan is functioning properly.²¹ Furthermore, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan will be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three (3) years to ensure that the implemented erosion control plan is functioning properly, and pursuant to NCC Section 18.108.140(A)(2) financial securities equaling 125% of the estimated cost of installation of the required erosion and runoff control measures specified in the ECPA located within the County-designated Rector Reservoir Sensitive Domestic Water Supply Drainage are required to be posted to ensure the all specified measures in the ECPA are implemented to protect domestic water supplies.

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the 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 0.63 tons/year, have no negative effect on

²¹ Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted, as indicated in **Section VII (Geology and Soils)**.

runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

Water Quality – Condition of Approval:

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

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

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

Discussion

- The project site is in a rural area of Napa County and the nearest established community is Atlas, approximately 2 miles southeast of the project site. The project site contains undeveloped land, and the surrounding areas contain vineyards, wineries, rural residential, woodland, and undeveloped land; therefore, the proposed vineyard and subsequent vineyard operations is consistent with surrounding land uses and would not physically divide an established community and no impact would occur.
- The project site is zoned as Agricultural Watershed and is designed under the Napa County General Plan as AWOS. Surrounding land uses consist of vineyards, wineries, rural residential, woodland, and undeveloped land. 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 0.63 tons per year and maintain or decrease 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 or decrease runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1 through BIO-4** is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. A Biological Resources Reconnaissance Survey Report was prepared for the proposed project. The proposed project as proposed would minimize potential direct, indirect, and cumulative impacts to special-status species

and associated habitat occurring on the project site with implementation of **Mitigation Measures BIO-1** through **BIO-4**. 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 minimized.

- With implementation of **Mitigation Measures BIO-1** through **BIO-5**, 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 BIO-1** through **BIO-5**, 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 Resources Reconnaissance Survey Report was prepared for the proposed project (**Exhibit B**).
- The project site does not contain wetlands within its boundaries and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. 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.

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Syar Napa Quarry, located approximately 7 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.

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIII. NOISE. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped, agriculture (planted with vineyards), and rural residential. The nearest residences are located approximately 417 feet northwest, 960 feet west, 530 feet south, and 730 feet and 1,250 feet north, respectively, from the development area. Additionally, adjacent properties and other properties in the immediate area contain vineyards.

Activities associated with installation of the proposed project, including earthmoving, blasting 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 tractor, backhoes and trencher. **Table 10** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 10**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 10 – Construction Equipment Noise Emission Levels

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

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

Table 11 characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA.

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

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be between approximately 55 and 65 dBA at the nearest existing offsite residences.

Blasting may occur during vineyard development that would involve the use of explosives to break apart rocks, which has the potential to cause vibration exposure. Ground vibration that occurs from blasting is dependent on the type of rock, type of explosive, and depth below ground that explosives are placed. Generally blasting at a distance greater than 755 feet from a residential sensitive receptor would not exceed significance thresholds in Caltrans' Transportation- and Construction-Induced Vibration Guidance Manual guidelines and estimates for standard construction equipment (Caltrans, 2013). The nearest offsite residences less than 755 feet may experience limited ground vibration during construction; however, this impact would be less-than-significant due to the short-term and limited nature of the blasting activities.

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

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

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

¹Based on a source noise level of 84 dBA

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately between 50 and 60 dBA at the closest existing offsite residences.

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

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<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.

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

Discussion

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

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

Discussion

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

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

Discussion

a-b. As noted in **Section VIII (Greenhouse Gas Emissions)**, as part of the statewide implementation of SB 743, OPR settled upon automobile VMT as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

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

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

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

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

Currently, the project site is undeveloped and contains an abandoned residence that is no longer in use. The project site is primarily accessed from Soda Canyon Road. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to six (6) passenger vehicle round trips per day during construction. Up to seven (7) truck trips would deliver and remove heavy equipment during construction. After vineyard installation, operational trips that include, but are not limited to pruning typically occurring in February, weed control occurring between April and May and harvest typically occurring in September and October, are anticipated to generate up to four (4) passenger vehicle trips and one (1) truck trip per day. 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 6 a.m. and departing around 3 p.m.

Because the proposed project would be expected to generate up to approximately six (6) daily trips during construction and four (4) daily trips for ongoing operations and maintenance, below the 110-trip threshold in the Office of Planning and Research guidelines and the County's TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts would be less than significant.

- c. The proposed project would utilize the existing site access off Soda Canyon Road for project development. The proposed project does not include roadway improvements and/or modifications to Soda Canyon 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 Watershed zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less-than-significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX, Hazards and Hazardous Materials**, for additional discussion related to emergency access.
- e. The proposed project would generate its largest demand for parking (approximately four (4) vehicles) during pruning and harvest periods which last up to between four (4) to five (5) days each. Current county ordinances do not require formal parking for agricultural projects. Parking within the proposed staging area and/or along proposed vineyard avenues would satisfy parking demands of project installation and subsequent vineyard operations. Therefore, no parking impacts are anticipated.

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVIII. TRIBAL CULTURAL RESOURCES. Would the project:

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

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

Discussion

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on January 17, 2023. On February 9, 2023, Yocha Dehe Wintun Nation responded that the project site is not located within aboriginal territories of the Tribe. further communication was received from the other tribes from whom consultation was requested within the 30-day notification period. The County sent consultation closure notices to Middletown Rancheria and the Mishewal Wappo Tribe of Alexander Valley on February 17, 2023.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project’s cultural resources study (Archaeological Services, Inc., June 2013), identified two (2) cultural resources within the project site, outside of the development area. The cultural resources are avoided with the design of the proposed development. 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).

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

Discussion

a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate 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 groundwater would provide irrigation water to the vineyard (see the Water Supply conditions of approval below). Irrigation pipelines would be located within existing roads, vineyards and vineyard avenues, and/or within the proposed development area.

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

b. Typically, the annual irrigation season ranges from late May to September. Water use for frost protection is not proposed. The proposed vineyard would use approximately 2.65 AF/yr of groundwater from an existing well to irrigate the approximately 5.3 net acres of new vineyard. The WAA prepared by RCS Associates LLC (**Exhibit E-1**) concluded that after full development, total groundwater demand for the new 5.3 net acres of vineyard and potential future residential water demands on the project site is estimated to be 3.4 AF/yr. Based on site-specific recharge and analysis the project site is estimated to have a total average annual groundwater recharge of 6.4 AF/yr. The project site's estimated groundwater demand of 3.4 AF/yr with the proposed project represents approximately 53% of the average annual groundwater allotment. The WAA estimated approximately 70.9 AF of groundwater is currently in storage beneath the project site, and that during a prolonged drought (estimated to last six (6) years), groundwater recharge would be reduced to 47% of the average annual recharge, or 3.0 AF/yr (18 AF in six (6) years). A conservative estimate of the total drought-period recharge at the project site (18 AF) would be less than the estimate of the total proposed onsite groundwater demand (20.4 AF) that might occur over the same six-year period, but the theoretical six-year long drought period groundwater "recharge deficit" of 2.4 AF would represent only about 3% of the volume of groundwater in storage. Temporarily removing an average of approximately 0.4 AF (when that deficit is divided by six (6) years) of groundwater from storage every year during this six-year long prolonged drought may cause water levels to decline somewhat beneath the project site, but removal of such a relatively small percentage of groundwater from storage over the six-year time period would not be expected to significantly impact groundwater levels beneath the project site. 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 may be used on existing roads where needed, used for rock-filled avenues, or stockpiled for future use inside the proposed development area. 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 (2). Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

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

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as a Very High Fire Hazard Severity Zone (CalFire, 2022; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone). Average slopes within the development area range from 9% to 10%, with approximately 0.1 acre in proposed Block 1 on slopes over 30% (**Exhibit A**). Elevations in the development area range from approximately 1,382 to 1,442 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 during project construction. 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.

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

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have the impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

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

- a. As discussed in this Initial Study, implementation of #P22-00289-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. Special-status plant species holly-leaved ceanothus (a CNPS List 1B.2 species) and its habitat has been identified on the project site and within the project area. With incorporation of **Mitigation Measure BIO-1** and **BIO-2**, a majority of this special-status plant and its habitat would be avoided and preserved. Implementation of **Mitigation Measures BIO-3** through **BIO-5** would avoid potential impacts to special-status amphibians and special-status and protected bird and bat species and their habitat.

The proposed project does not include the installation of wildlife exclusion fencing. 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. As such, the proposed project 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 species would not be restricted, cumulative impacts are anticipated to be less than significant.

The project site contains two (2) ephemeral drainages. To reduce impacts on water quality within the drainages, the proposed project has been designed to avoid the drainages with minimum 35-foot setbacks in accordance with NCC 18.108.025.

With incorporation of standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**).

Therefore, the proposed project as designed with the incorporation **Mitigation Measures BIO-1** through **BIO-5** 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 Rector Reservoir Drainage area, that flows into Napa River and San Pablo Bay. The Rector Reservoir Drainage area contains approximately 6,971.5 acres. In 1993, vineyard acreage within this drainage was approximately 335.5 acres, or 4.8% of the drainage. Since 1993 approximately 1,218.3 acres of additional vineyard (or 17.5% of the drainage) have been developed to vineyard, resulting in approximately 22% of the drainage (or approximately 1,553.8 acres) containing vineyard.

It is estimated, based on evaluation of the County’s GIS layer identifying Potentially Productive Soils within the Rector Reservoir Drainage, that there are approximately 2,270.2 acres (32.5% of the drainage) having the potential to be developed to vineyard. This, in conjunction

with existing and approved vineyard development (approximately 1,553.8 acres), results in a total potential build out of approximately 3,824 acres or approximately 55% 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., Rector Reservoir watershed) over the last 29 years (1993-2022) were used to project an estimation of vineyard development for the next three (3) to five (5) years. Over the past 29 years within the Rector Reservoir Drainage, approximately 1,553.8 acres of agriculture were developed per year (1,553.8 divided by 29).

Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 160.7 to 267.9 acres over the next three (3) to five (5) years within the Rector Reservoir 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 (3) to five (5) 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 (#P22-00289-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 (1) of the gases that contribute to climate change (**Tables 6 and 7**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

Project-specific Biological Resources Reconnaissance Surveys (MIG, Inc., February 2022 - **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 site. The database records searches included the CNDDDB, CNPS, USFWS and Napa County databases. As discussed in **Section IV (Biological Resources)**, one (1) special-status plant species (holly-leaved ceanothus) was identified in the development area. With implementation of **Mitigation Measure BIO-1 and BIO-2**, the project would avoid and preserve approximately 87% of the special-status plant populations occurring on the project site and would provide the opportunity for these species to maintain viable populations both on the parcel and, more broadly, in the region, reducing potentially significant impacts to special-status plant species and their habitat to a less-than-significant level. Implementation of this mitigation measure would also effectively offset the loss of special-status plants and habitat located within the mitigated project and protect sensitive habitat. Potential direct and indirect impacts to potentially occurring special-status animal species (CRLF, FYLF, white-tailed kite, and pallid bat) and their habitat would be avoided and reduced through implementation of **Mitigation Measures BIO-3 through BIO-5**. The two (2) ephemeral streams within the project parcel are outside of the proposed development area and would not be affected by the proposed project. Therefore, the 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 (Archaeological Services, Inc., June 2013) identified two (2) cultural resources on the project site, outside the development area: a wood water tower, and remains of a rock fence. 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 0.65 tons/year as compared to existing conditions (**Table 5**). The reason 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 Rector Reservoir 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 conditions 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 Tier 1 WAA prepared by Richard C. Slade and Associates (January 2022 - **Exhibit E-1**) indicate that the proposed development consisting of approximately 5.3 net acres of planted vineyard would result in approximately 2.65 AF/yr of groundwater use, with an additional 0.75 AF/yr needed in the event the abandoned residence on the project site is used in the future, totaling approximately 3.4 AF/yr. The proposed project would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels given that anticipated annual water use of the proposed project is below the anticipated annual groundwater recharge rate screening criteria (or allocation); overall water use during a theoretical six (6) year drought period would not be expected to significantly impact groundwater levels beneath the project site; there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and incorporation of the standard groundwater management condition of approval would reduce potential impacts associated with groundwater use.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the HydroCAD model was prepared by PPI Engineering (PPI Engineering, January 2022 - **Exhibit F**). 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 F**). 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 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. 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.

LIST OF FIGURES:

Figure 1	Site Location Map (USGS)
Figure 2	Site Location Map (Aerial)
Figure 3	Project Site and Project Area Air Photo
Figure 4	Holly Leafed Ceanothus Avoidance

LIST OF TABLES:

Table 1	Implementation Schedule
Table 2	Typical Annual Operations Schedule
Table 3	Emissions from Vineyard Development and Operation
Table 4	Biological Communities and Habitat Types on the Project Site and in the Development Area
Table 5	USLE Soil Loss Analysis
Table 6	Estimated Development Area Carbon Stocks/Storage
Table 7	Estimated Project Carbon Emissions Due to Vegetation Removal
Table 8	Estimated Overall Project-Related GHG Emissions
Table 9	Hydrologic Modeling Calculations Results: Runoff Rates
Table 10	Construction Equipment Noise Emission Levels
Table 11	Estimated Distance to dBA Contours from Construction Activities
Table 12	Estimated Distance to dBA Contours from Farming Activities

LIST OF EXHIBITS:

Exhibit A	Agricultural Erosion Control Plan #P22-00289-ECPA
Exhibit B	Biological Resources Reconnaissance Survey Report
Exhibit B-1	Tree Canopy Preservation Area
Exhibit B-2	Updated Tree Preservation Calculations
Exhibit C	Landslide Hazard Evaluation
Exhibit D	Soil Loss Analysis
Exhibit E-1	Tier 1 Water Availability Analysis
Exhibit E-2	Tier 3 Water Availability Analysis
Exhibit F	Hydrologic Analysis
Exhibit G	Project Revision Statement
Exhibit H	Application Submittal Materials and Correspondence