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:** Chappellet Vineyard, Agricultural Erosion Control Plan Application (ECPA) #P21-00206-ECPA

2. **Property Owner(s):** Chappellet Vineyard LLC.

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

4. **Project Location and APN:** Assessor's Parcel Numbers (APNs) 032-560-022 and 032-560-033
   Located approximately 1.8 miles southeast of the intersection of Sage Canyon Road (State Route 128) and a private driveway (**Figures 1 and 2**)
   Sections 7 and 8, Township 7 North Range 4 West, Mt. Diablo Base and Meridian
   Latitude 38° 28' 02.43" N / Longitude 122° 19' 28.29" W

5. **Project Sponsor:** Chappellet Vineyard LLC
   Cyril Chappellet
   1581 Sage Canyon Road
   St. Helena, CA 94574

   Plan Preparer: Mike Muelrath (RPE #67435)
   Applied Civil Engineering Incorporated
   2160 Jefferson Street, Suite 230
   Napa, CA 94559

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

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

8. **Description of Project:** The proposed project involves the clearing of vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 40.7 gross acres of vineyard (approximately 33.1 net planted acres) in five proposed vineyard blocks, and the construction and maintenance of vineyard access roads encompassing approximately 1.1-acres to connect proposed vineyard Blocks D and E to Block C, resulting in an approximate 41.8-acre development area (i.e. project area), located on an approximate 238-acre holding (i.e., project site or project property). The acreages of each of the proposed vineyard blocks are indicated in **Table 1**.

   Rock removed during vineyard development would be used for road base on existing roads on the project site or used to create rock filled benches at various locations in the new vineyard avenue. The rock also may be buried back into the vineyard as mulch or temporarily stored in the development area. New wildlife exclusion fencing would connect with existing fencing on the project site to enclose proposed vineyard Blocks A and B together, proposed vineyard Block C individually, and proposed vineyard Blocks D and E together. Approximately 325 trees with diameter breast height (dbh) greater than 6 inches are proposed for removal, consisting of oak species and California bay. The proposed vineyard would be irrigated with approximately 17.5 acre-feet (AF) of groundwater annually from four existing groundwater wells. Irrigation pipelines would be located in existing roads, vineyards and vineyard avenues, and/or within the proposed development area. See **Figure A-1**.

Table 1 – Proposed Vineyard Block Acreage

Block Number	Gross Acreage	Net Acreage
A	6.0	4.5
B	6.5	5.6
C	13.2	10.9
D	5.5	4.0
E	9.5	8.1
Total	**40.7**	**33.1**

Erosion Control Measures: Temporary erosion control measures include installation of sediment barriers, erosion control blankets, water bars, the application of straw mulch at a rate of 3,000 pounds per acre, and a temporary cover crop maintained at a minimum vegetation cover density ranging from 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E. Permanent erosion control measures include: rock surfaced vineyard avenues, rolling dips, energy dissipators, and block-specific permanent cover crop maintained at minimum vegetation cover densities ranging from 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E. Details of the proposed erosion control measures are provided in the Chappellet Vineyard LLC Vineyard Development Erosion Control Plan (June 19, 2024) prepared by Mike Muelrath (RPE #67435) of Applied Civil Engineering Inc. (**Exhibits A-1** and **A-2**).

Earthmoving: Earthmoving and grading activities associated with land contouring (10,000 cubic yard balanced onsite) and the installation of erosion control measures and subsequent vineyard operations include, but are not limited to, vegetation removal, soil ripping to a depth up to 36 inches, rock removal, disking, trenching for irrigation pipelines, construction of vineyard access roads to connect development areas, and the development of erosion and runoff control measures.

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

a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 4-foot by 7-foot spacing pattern for an approximate vine density of ±1,556 vines per acre.
b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
c. Ongoing operation and maintenance of the vineyard, which includes vine management (pruning, fertilization, and pest and disease control), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. The management regime of the no-till cover crop would consist of mowing and late winter or early springtime strip spraying in an 18-inch-wide strip by contact or systemic herbicides: no pre-emergent spraying would be utilized as part of cover crop management.
d. Environmental Commitment(s) - the owner/permittee, as part of this ECPA, has included the following elements into the project design and implementation:
    1. Archaeological Resources: All work is to cease if archaeological, cultural, or historical resources are discovered during construction. If such resources are discovered, the Napa County Planning, Building and Environmental Services Department shall be contacted at (707) 253-4417 and an appropriate course of action will be developed.
    2. Air Quality: Implementation of the following protection measures i) Woody vegetation cleared from the development area will be chipped or burned in accordance with California Department of Forestry and Fire Protection (CalFire) and Bay Area Air Quality Management District (BAAQMD) requirements; ii) All exposed soil stockpiles shall be covered; iii) Disturbed areas will be seeded and mulched as soon as possible; iv) All trucks hauling soil, sand and other loose materials shall be covered or all trucks shall maintain at least two feet of freeboard in accordance with section 23114 of the California Vehicle Code during transit to and from the site; v) The driveway and site access shall be swept daily if visible soil material is carried onto the driveway and street; vi) Traffic on unpaved areas and roads shall be limited to 15 miles per hour (mph); vii) Grading and earthmoving activities shall be suspended when winds exceed 20 mph;
    viii) Extended periods of construction equipment engine idling will be avoided to the maximum extent feasible; and,
    ix) Construction equipment will be maintained in accordance with manufacturers' specifications.
    3. Noise: Rock blasting, if required will be performed in isolated areas and will be scheduled to occur between the hours of 10:00 A.M. and 2:00 P.M. Monday through Friday. Blasting events would be limited to 10 total events.

Table 2 lists a general schedule for the construction of the proposed project as identified in #P21-00206-ECPA and **Table 3** outlines typical general ongoing vineyard operations. The vineyard would be developed in two phases, with construction occurring up to six months during the year. The final implementation schedule is pending action on #P21-00206-ECPA.

Table 2 – Implementation Schedule

April 1 to September 1[1]	Clear and prepare planting area. Install erosion control, drainage improvements, waterbars, rock energy dissipators, etc. Install irrigation and trellis systems, and plant vines. Seed cover crop and straw mulch disturbed areas for the first three years of vineyard development and establishment.
Prior to September 15[2]	All winterization complete, including seeding, straw mulching, and straw wattle installation.
September 15 to April 1	Maintain erosion and sediment control devices, inspect after all rain events producing significant runoff, re-seed temporary cover crop as needed to maintain appropriate cover.

[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 3 – Typical Annual Operations Schedule

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

Vineyard construction is anticipated to generate between 7 and 30 round trips per day for anticipated work crews of between 10 and 30 employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would include bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Vineyard operations are anticipated to generate between 8 to 12 round trips per day for anticipated work crews of between 1 and 10 employees for typical operations, such as but not limited to irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vine/vineyard inspection, on the days when these activities occur. During peak operations, activities such as vineyard pruning, weed and pest control, and harvest are anticipated to generate between 10 to 30 round trips, including grape haul trucks, for anticipated work crews of between 15 and 20 employees. Anticipated equipment for vineyard operations would include tractors, backhoes, grape haul trucks, and ATVs and passenger vehicle and/or light trucks.

Implementation of the proposed project would be in accordance with the Chappellet Vineyard LLC Vineyard Development Erosion Control Plan prepared by Applied Civil Engineering Inc. (**Exhibits A-1** and **A-2**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES), and at Current Projects Explorer | Napa County, CA (countyofnapa.org)

9. **Describe the environmental setting and surrounding land uses:** The approximate 238-acre project site (APNs 032-560-022 and 032-560-033) is located approximately 5 miles northeast of the Town of Yountville and approximately 7.5 miles southeast of the City of St. Helena, in Napa, California (**Figures 1-3**). The project site is located approximately 1.8 miles southeast of the intersection of Sage Canyon Road and an existing private driveway providing access to the proposed development area. Existing improvements on the project site include gravel and dirt roads, two groundwater wells, one reservoir (with water stored pursuant to existing Water Right License 9858 [Application 20616] and Permit 18334 [Application 26508]), approximately 12.8 acres of existing vineyard, and the related infrastructure serving the existing uses. The project site also contains existing wildlife exclusion fencing, as shown on the project ECPA plans (**Exhibit A-1**, Sheet Number C9).

   Surrounding and adjacent land uses consist generally of undeveloped chaparral and oak woodlands interspersed with vineyards, agricultural processing facilities (e.g., wineries), and rural residences. The Chappellet Vineyard LLC and Chappellet Winery Inc. own six additional parcels in the vicinity of the project site (APNs 032-560-014, 032-560-015, 032-560-016, 032-560-021, 032-560-030, 032-560-031) that contain a winery and a residence. Chappellet Winery is located approximately 0.5 mile north of proposed vineyard Blocks A and B.

   General topography of the area consists of the flats of Napa Valley to the west and south and rolling mountains to the east and north. The project site is located on a northwest/southeast trending range. Typical slopes within the project area range from 6% to 23%, with an average slope of approximately 13%. Average slopes within the proposed vineyard access road areas range from 14% to 31%. The project area generally consists of moderate to steep slopes, with elevations ranging from approximately 1,350 to 1,850 feet above mean sea level (msl).

   The project site is located in the Lake Hennessey and Rector Reservoir Sensitive Domestic Water Supply Drainages. The areas of proposed vineyard Blocks A, B and the northern half of proposed Block C are located in the Lake Hennessey Watershed. The southern half of proposed Block C and Blocks D and E are located in the Rector Reservoir Watershed. Lake Hennessey and Rector Reservoir are located approximately 1.5 miles to the northwest and south, respectively, of the project site.

   The project site contains one primary intermittent stream which is an unnamed dashed blue-line stream on the U.S. Geological Survey (USGS) Yountville 7.5-minute topographic quadrangle. Two ephemeral tributaries of the stream as well as five additional ephemeral streams are also present within the project site. The primary stream flows into an existing reservoir and overflow flows off-site to Lake Hennessey located to the northwest. The remaining ephemeral drainages flow south toward Rector Reservoir.

   A series of northwest by southeast-tending faults are mapped within about 0.5 mile to the northeast and southwest of the project site. The site is approximately 18 miles northwest of the nearest active fault, the Green Valley Fault. Landslides have been identified within the project site, although none are located within or around the proposed development area (O'Connor Environmental, Inc., February 24, 2020; **Exhibit D**). Soils in the development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Guenoc-rock outcrop complex, 5 to 30% slopes; Hambright rock-outcrop complex, 30 to 50% slopes; Rock outcrop-Hambright complex, 50 to 75% slopes; Sobrante loam, 5 to 30% slopes; and Sobrante loam, 30 to 50% slopes.

   The vegetation alliances (or habitat types) on the project site and the proposed development area include oak woodlands, chaparral, scrub, non-native grasslands, and disturbed areas.

10. **Background:** An ECPA application for the proposed project was originally submitted to Napa County PBES on November 10, 2020 (#P20-00271-ECPA). In designing the original layout under #P20-00271-ECPA areas of APN 032-560-021 (Lands of Chappellet Vineyard LLC.) were considered for development, however the owner/applicant elected to avoid development within this parcel (i.e. APN 032-560-021 to increase avoidance of sensitive plants and associated habitat, and other biological communities consistent with Napa County General Plan policies. This

area is generally described as the 'Additional Area' included in the project Biological Resources Reconnaissance Survey Report (**Exhibit B-1):** also see **Section IV (Biological Resources)** of this initial study for additional details.

Tribal consultation requests and water purveyor notices were distributed under this application. On December 28, 2020, the County received a response form the City of Napa Water Division indicating that the proposed erosion control protection measures appeared to be sufficient to safeguard water quality. See **Section 12 (California Native American Tribal Consultation)** and **Section XVIII (Tribal Cultural Resources)** of this initial study for details regarding tribal consultation.

Application P20-00271-ECPA was closed by the County on August 12, 2021, due to inactivity. The application was reopened on August 13, 2021, with new application number #P21-00206-ECPA for continued processing, this new ECPA was submitted to the County on September 29, 2021.

On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 (March 2022) for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during. While Executive Order No. N-5-23 (March 2023) rolled back some of the drought emergency provisions, due to ongoing water conditions Emergency Order N-7-22 remains in place and the remaining criteria for the County's interim actions and procedures also remain, particularly County Water Availability Analysis Tier 3 Requirements (Groundwater/Surface Water Interaction Criteria). See **Section X** (**Hydrology and Water Quality**) for additional disclosures and details. In September 2022 the owner/applicant was notified of this requirement and a Tier 3 Analysis was requested. In January 2023 the owner/applicant provided the necessary Tier 3 Analysis.

In June of 2024, in response to County concerns associated with oak woodland removal and avoidance, the owner/applicant revised the ECPA to avoid additional oak woodland to increase consistency with General Plan Conservation Policy 24.c and support woodland avoidance feasibility of the proposed project. The avoided oak woodland occurs in Proposed Vineyard Block A. This revision reduced Vineyard Block A to approximately 6.0 gross acres (from approximately 7.2-acres) avoiding 1.1-acres of Coast Live Oak woodland and associated cover canopy reducing overall oak woodland removal to approximately 1.23-acres from 2.33-acres: tree removal was reduced by approximately 92 trees from 417 trees to approximately 325 trees.

At that time the owner/applicant also revised the boundaries of proposed Vineyard Block C to partially offset the avoided acreage in Block A, that increased Vineyard Block C to 13.8 gross acres from 13.2-acres. That revision also resulted in the removal of a special-status plant species: ten (10) Nodding harmonia individuals encompassing approximately 0.04-acres located in the central-western portion of Block C. After considering the potential affects this revision could have on this special-status plant species and the project, in October of 2024 the owner/applicant reverted Vineyard Block C back to its original configuration. Overall, the revisions to the plans reduced land disturbance to approximately 41.8-acres from approximately 42.9-acres, and reduces net planted acreage by 1.1-acres to 33.1-acres from 34.2-acres (**Exhibit A-1** through **Exhibit A-3** and **Table 5**)[1].

An existing emergency access road from the Chappellet properties through to Stagecoach Vineyards to the southeast was processed under grading permit #ENG 21-00018 and is part of the existing setting. This existing access would also provide access between proposed Vineyard Blocks C and E, and while this access is existing its area has been included in the overall project acreage, as identified above, because it is proposed to be utilized for the subject vineyard development project and subsequent operations.

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

Responsible (R) and Trustee (T) Agencies	**Other Agencies Contacted**
California Department of Fish and Wildlife (CDFW) (T)	Middletown Rancheria
Regional Water Quality Control Board (Regional Water Board) (R)	Mishewal Wappo Tribe of Alexander Valley
	Yocha Dehe Wintun Nation
	City of Napa Water Division
	Town of Yountville Public Works Department
	Yountville Veterans Home Plant Operations

12. **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?

[1] There may be slight discrepancies in the acreages identified due to the rounding tolerances utilized by the various project document/study preparers and the tolerances of the various mapping platforms, spatial characteristics, and mapping data used by the preparers. Because approximate project acreages have been corroborated through CAD and GIS mapping, the acres disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

Notice of the proposed project was sent certified mail to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on December 7, 2020. The County received a response email from The Middletown Rancheria of Pomo Indians of California on December 11, 2020, indicating that the project area is within their aboriginal territories and requested project information and tribal consultation.

On January 19, 2021, the County replied to the Middletown Rancheria and stated that the application is in process and subject to review pursuant to the California Environmental Quality Act (CEQA) so tribal consultation would be ongoing. The County sent consultation closure notices to the Mishewal Wappo Tribe of Alexander Valley and Yocha Dehe Wintun Nation on January 19, 2020, because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitations were provided.

On August 9, 2023, a site inspection was conducted with The Middletown Rancheria (Michael Rivera) and Napa County Conservation and Engineering Division staff (Donald Barrella and Alexei Belov) as part of requested consultation. In subsequent communications with The Tribe on August 24 and 25, 2023, the conditions approval disclosed in **Section XVIII (Tribal Cultural Resources)** were agreed to further protect and avoid impacts to potential tribal cultural resources. See **Section XVIII (Tribal Cultural Resources)** for additional details.

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 ECPA #21-00206-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 Current Projects Explorer | Napa County, CA (countyofnapa.org)

- Applied Civil Engineering Inc., October 31, 2024, Vineyard Development Erosion Control Plan, Revision 3, Chappellet Vineyard LLC (**Exhibit A-1**).
- Applied Civil Engineering Inc., October 31, 2024, Erosion Control Plan Narrative, Revision 2, Chappellet Vineyard LLC (**Exhibit A-2**).
- Applied Civil Engineering Inc., September 29, 2021, Response to Comments, June 28, 2024, Project Revision, and November 1, 2024, Project Revision, Chappellet Vineyard LLC Vineyard Development Erosion Control Plan (P20-00271 & P21-00206), Sage Canyon Road, St. Helena, CA 94574, Napa County, APNs 032-056-022 and -033 (**Exhibit A-3**).
- WRA Environmental Consultants, February 2020, Biological Resources Reconnaissance Survey Report, Chappellet Vineyard LLC, Sage Canyon Road, Napa County, California (APN: 032-010-076, 032-010-094) (**Exhibit B-1**).
- WRA Environmental Consultants, January 26, 2021, RE: Chappellet Vineyard, Napa County ECP – Response to Napa County Comments on Biological Resources (File #P20-00271-ECPA) (**Exhibit B-2**).
- Applied Civil Engineering Inc., October 31, 2024, Vegetation Canopy Cover Exhibit, Revision 2, Chappellet Vineyard LLC (**Exhibit B-3**).
- Applied Civil Engineering Inc., October 31, 2024, Vegetation Retention Analysis 1993, Revision 2, Chappellet Vineyard LLC (**Exhibit B-4**).
- Archaeological Resource Service, August 16, 2019, A Cultural Resources Evaluation of Five Proposed Vineyard Blocks and Access Roads within Chappellet Vineyards, 1581 Sage Canyon Road, St. Helena, Napa County, California (**Exhibit C**): contents confidential.
- O'Connor Environmental, Inc., February 24, 2020, Landslide Hazard Evaluation, Chappellet Vineyard APNs 032-010-076 and 032-010-094, and June 7, 2021, Response to Comments on Chappellet Vineyards Landslide Hazard Evaluation associated with #P20-00271-ECPA/#P21-00206-ECPA Sage Canyon Road: APNs 032-560-022 and -033 (**Exhibit D**).
- David Steiner, CPESC, CPSWQ, December 2020, Soil Loss Analysis for New Vineyard Proposal (**Exhibit E**).
- O'Connor Environmental, Inc., February 2020, Revised September 2021, January 2022 and January 2023, Water Availability Analysis, Chappellet Vineyards APN 032-560-022 and 033 (**Exhibit F**).
- David Steiner, CPESC, CPSWQ, September 25, 2021, Hydrologic Analysis, Revision 4 and Addendum, Chappellet Vineyard, Proposed New Vineyard Development, 1531 Sage Canyon Road, St. Helena, CA, APN 032-010-076, 032-010-094 (**Exhibit G**).
- Site inspection conducted by Napa County Conservation and Engineering Division staff (Donald Barrella and Daniel Hornett) on December 17, 2020.
- Site inspection conducted with The Middletown Rancheria (Michael Rivera) and Napa County Conservation and Engineering Division staff (Donald Barrella and Alexei Belov) on August 9, 2023.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

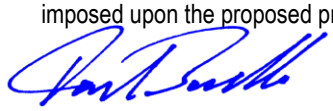
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 H** is the signed Project Revision Statement.

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

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

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



Signature

November 15, 2024
Date

Donald Barrella
Printed Name

Napa County Planning, Building and Environmental Services

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Except as provided in Public Resources Code Section 21099, would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	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?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

a-b. The project site is 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 within the project site and in the vicinity of the project site. As described in **Section IV (Biological Resources)**, approximately 325 trees are proposed for removal with the proposed project however 91% of the existing tree canopy would be preserved. The majority of the trees proposed for removal are not visible from public viewpoints. The closest Viewshed Road (Sage Canyon Road) is over 1 mile to the north, the next closest (Silverado Trail) is over 1.5 miles to the west (Napa County GIS, Viewshed Roads Layer). Therefore, the proposed project would not result in damage to a scenic resource.

The project site is not located on a prominent hillside, or a major or minor ridgeline (Napa County GIS, Ridgelines Layer) and there are no historic buildings on 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 designation and with adjacent land uses, which include undeveloped chaparral and oak woodlands interspersed with vineyards, agricultural processing facilities (e.g., wineries), and rural residences. Although trees would be removed, as explained in *Subsections* a-b above (and discussed in **Section IV [Biological Resources]** below), the majority of the trees are not visible from public viewpoints, and their removal would not substantially degrade the existing visual character or quality of public views of the site or its surroundings. For these reasons, the impact would be less than significant.

d. Proposed agricultural operations on the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September), that could include nighttime activity (typically from 2 a.m. to 10 a.m.) approximately six to eight days per year. The proposed project would include sulfur and pesticide/herbicide applications that could occur between 10 p.m. and 7 a.m., approximately 12 days per year and two days per year, respectively. 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 existing project site uses and 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?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a. The project site is not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the California Department of Conservation. Existing vineyard located on APN 032-560-022 is mapped as Unique Farmland. The proposed project would result in an increase in agricultural land from previously undeveloped uses 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 no impact.

b. The project site has an AWOS designation and is zoned AW. Therefore, the establishment of vineyard totaling approximately 40.7 gross acres (33.1 net acres) including approximately 1.1-acres of vineyard access roads 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 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 includes the construction of two new vineyard access roads totaling 1.1-acres to connect proposed vineyard Blocks D and E to Block C, but construction would not 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?	☐	☐	☒	☐
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion[2]

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

The Bay Area Air Quality Management District (BAAQMD) has published CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (referred to as CEQA Guidelines) to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans.[3] The CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin (SFBAAB). They contain nonbinding recommendations for how a lead agency can measure, evaluate, and mitigate air quality and GHG impacts generated from land use construction and operational activities.

The BAAQMD CEQA Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide BAAQMD-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. The BAAQMD published its most recent update to the CEQA Guidelines on April 20, 2023, which is referred to as the 2022 CEQA Guidelines. The 2022 Guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017). The potential impacts associated with construction and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with BAAQMD's 2022 CEQA Guidelines.

a-b. The project site is generally located in the Lake Hennessy and Rector Reservoir watersheds along the eastern side of Napa Valley, within the Napa County climatological sub region of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley sub region 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, vehicular haul and worker trips, and the burning of any project area vegetation[4]. 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.

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter less than 10 microns in diameter (PM_{10}), fine particulate matter less than 2.5 microns ($PM_{2.5}$), and lead. Air basins (or portions thereof) are categorized as "attainment", "nonattainment" or "unclassified" for each criteria air pollutant based on whether ambient air quality standards have been achieved. The SFBAAB is currently designated as a nonattainment area designated for the federal 8-hour ozone standard, state 1-hour and 8-hour ozone standards, state annual and 24-hour PM_{10} standards, federal 24-hour $PM_{2.5}$ standard and the state annual $PM_{2.5}$ standard. Therefore, the criteria air pollutants of concern in the SFBAAB are reactive organic gases (ROG) and oxides of nitrogen (NO_x) which are referred to as ozone precursors, as well as PM_{10} and $PM_{2.5}$.

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

[3] BAAQMD, 2023. *2022 California Environmental Quality Act Air Quality Guidelines.* April 2023. Available at https:// www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

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

Air quality attainment plans are required to be prepared for nonattainment areas both under federal and state law. The most recently adopted air quality plan to address nonattainment issues in the SFBAAB is the 2017 Bay Area Clean Air Plan (Clean Air Plan).[5] The Clean Air Plan provides a regional strategy to protect public health and the climate by progressing toward attaining all state and federal air quality standards, eliminating health risk disparities from exposure to air pollution among Bay Area communities, transitioning the region to a post-carbon economy needed to achieve greenhouse gas (GHG) reduction targets for 2030 and 2050, and providing a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to SFBAAB residents, such as particulate matter, ozone, and toxic air contaminants (TACs); reduce emissions of methane and other "super-GHGs"[6] that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.[7]

The BAAQMD's current guidance requires consideration of the following questions in determining whether a project is consistent with an air quality plan. If all three questions are answered in the affirmative with substantial evidence provided in support of the answer, the project would be considered to be consistent with the clean air plan.

1) For each applicable air quality plan, does the project support the primary goals?
2) For each applicable air quality plan, does the project include all applicable control measures?
3) For each applicable air quality plan, does the project not disrupt or hinder implementation of any control measures?

The BAAQMD-recommended guidance for determining if a project supports the goals of the current clean air plan is to compare project-estimated emissions with BAAQMD thresholds of significance. If a project's emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the clean air plan. As indicated in the following discussion regarding air quality impact *Subsection* b, the project would result in less than significant impacts from construction and operation as the Project would not generate criteria air pollutant emissions related to either construction or operation that would exceed the BAAQMD mass emissions thresholds of significance. Thus, the proposed project would not conflict with the goals of the Clean Air Plan.

The Clean Air Plan contains 85 control measures aimed at reducing air pollution in the SFBAAB, and projects that incorporate all feasible air quality plan control measures are considered consistent with the Clean Air Plan. Of these, the only control measure applicable to the project is Transportation Control Measure TR22 that addresses emissions from construction equipment. Control measure TR22 uses various strategies to reduce emissions from construction and farming equipment (e.g., incentives for equipment upgrades and/ or use of renewable electricity and fuels). Since 2009, the BAAQMD has provided more than $38 million to replace and/or upgrade hundreds of pieces of older, often uncontrolled equipment used in construction, cargo-handling and agricultural operations with newer units that have engines certified to the cleanest available standards. The proposed project would benefit from this ongoing program and would not conflict with its implementation. Therefore, the proposed project would not be inconsistent with nor hinder implementation of any of the Clean Air Plan control measures, and the project would not conflict with or obstruct implementation of the Clean Air Plan. The impact would be less than significant.

The 2022 BAAQMD Guidelines provide thresholds of significance for air quality impacts from both construction and operation. According to BAAQMD, a project would have a significant impact on air quality if emissions from construction or operation would exceed the thresholds of significance shown in **Table 4A**.

Table 4A – BAAQMD Thresholds of Significance for Construction and Operation

Pollutant	Construction	Operation	
	Average Daily (pounds per day)	Average Daily (pounds per day)	Annual (tons per year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}[a]	82	82	15
$PM_{2.5}$[a]	54	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices (BMPs)	Not applicable	

[a] Includes PM emissions from exhaust only.
Sources: BAAQMD CEQA Guidelines April 2023.

For construction-related emissions of fugitive dust, the BAAQMD recommends that lead agencies take a qualitative approach to determine impact significance; the CEQA Air Quality Guidelines state that a project would be considered to have a less-than-significant impact with

5 BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.
6 "Super-GHGs" are climate pollutants that have a powerful ability to contribute to global warming, such as methane, black carbon, and fluorinated gases.
7 BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

regard to fugitive dust emissions of PM_{10} and $PM_{2.5}$ if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air quality and GHG emissions, a review of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards[8] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[9] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[10] for an approximately 400-acre vineyard development[11].

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

Table 4B shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in emissions modeling results between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as quantities and types of vegetation to be removed, construction trips, construction equipment and duration of use/operation, and operational equipment operation and trips.

Table 4B – Emissions from Vineyard Development and Operation

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

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

Because the proposed project's approximately 41.8 gross acres (approximately 33.1 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 that those identified in **Table 4** 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) as necessary up to two times per day.

[8] #P09-00176-ECPA, Analytical Environmental Services (AES) March 2012, SCH #2009102079 certified February 3, 2013
[9] #P11-00205-ECPA, AES March 2016, SCH #2008052075 certified August 1, 2016
[10] #P06-01508-ECPA, AES April 2011, SCH #2007062069 certified December 22, 2011
[11] These EIRs are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services permanent files.

- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[12] or the PERP website[13].

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 4B**, 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 4B** 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, and undeveloped chaparral and oak woodlands. The project site consists of approximately 238-acres of land and existing facilities include gravel and dirt roads, two groundwater wells, one reservoir, approximately 12.8-acres of vineyard and related infrastructure serving the existing uses. The closest schools are located over 6.5 miles to the west/northwest of the project site within the City of St. Helena (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 700 feet east and south of proposed Block B.

During installation of the ECPA, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, bulldozers, and an excavator). These sources would be temporary and/or seasonal in nature and would occur over 6.5 miles from the closest school and approximately 700 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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☐	☐	☒

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

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

d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

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

- WRA Environmental Consultants, February 2020, Biological Resources Reconnaissance Survey Report, Chappellet Vineyard LLC, Sage Canyon Road, Napa County, California (APN: 032-010-076, 032-010-094) (**Exhibit B-1**)
- WRA Environmental Consultants, January 26, 2021, RE: Chappellet Vineyard, Napa County ECP – Response to Napa County Comments on Biological Resources (File #P20-00271-ECPA) (**Exhibit B-2**)
- Applied Civil Engineering, February 16, 2024, Vegetation Canopy Cover Exhibit, Chappellet Vineyard LLC (**Exhibit B-3**)
- Applied Civil Engineering Inc, June19, 2024, Vegetation Retention Analysis 1993 and 2016, Chappellet Vineyard LLC (**Exhibit B-4)**

WRA Environmental Consultants conducted an assessment of biological resources present or potentially present in the project site on April 25, June 20, and July 10, 2018, with a subsequent tree survey performed on August 30 and 31, 2019. The study area for the surveys included approximately 245.49-acres (**Exhibit B-1** Figure 2), including an approximate 13-acre portion of a parcel directly adjacent to the northwestern portion of the project site under the same ownership[14]: identified as the '*Additional Area*' in the Biological Resources Report (BRA). 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 *Additional Area* was included by the owner/applicant in the BRA, in part, to ensure that setbacks from sensitive biological resources are adequate. The assessment of the *Additional Area* in the BRA also includes increased special-status plant and habitat conservation/avoidance acreages and ratios should those areas be necessary to adequately minimize potentially significant impacts to special-status plant species or their habitat because of the project on a project specific or the cumulative context.

Prior to conducting the biological surveys, biological information for the project site was obtained from the following sources: U.S. Fish and Wildlife Service (USFWS) list of federally listed special-status species with the potential to occur on and near the study area; California Native Plant Society (CNPS) query of state and federally listed special-status species known to occur in Napa County; California Natural Diversity Data Base (CNDDB) query of state and federally listed special-status species known to occur in the St. Helena, Chiles Valley, Lake Berryessa, Rutherford, Yountville, Capell Valley, Sonoma, Napa, and Mt. George USGS 7.5-minute quadrangles; Soil Survey of Napa County; National Wetlands Inventory (NWI) database of wetlands and surface waters within the project site; and other relevant materials (WRA Environmental Consultants, February 2020 – **Exhibit B-1**).

The field surveys were conducted by qualified biologists familiar with the resources of Napa County and surrounding counties, with the goal of identifying the presence of sensitive biological communities, the potential for biological communities on the site to support special-status plant and wildlife species, and the presence of any other sensitive natural resources protected by local, state, or federal laws and regulations. Botanical assessments followed protocols described in the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW, 2018), *Botanical Survey Guidelines of the California Native Plant Society* (CNPS, 2001), and *The Jepson Manual* (Baldwin, 2012). Wildlife was identified by calls, scat, remains, or direct sight. On-site trees proposed for removal were assessed for their potential to support roosting by special-status bats, with primarily relevant characteristics including the presence of substantial cavities and hollows. Aerial imagery from Google Earth, as well as the BIOS Essential Habitat Connectivity mapper, were reviewed to assess habitats surrounding the study area for potential wildlife movement, wildlife corridors, or movement barriers. Field methodology for identifying corridors for movement including searching for game trails or habitats that would favor the movement of wildlife or potential gene flow. Existing and proposed barriers were examined to determine current movement potential within the study area and whether the proposed project would impact movement.

The project site and *Additional Area* consists of the following vegetation alliances (or habitat types)/terrestrial land cover types: coast live oak – California bay woodland, blue oak woodland, coast live oak (riparian), coast live oak – blue oak forest, common manzanita chaparral, leather

[14] APN 032-560-021: Lands of Chappellet Vineyard LLC.

oak – chamise chaparral, chamise chaparral, coast live oak – California bay scrub, coyote bush scrub, leather oak chaparral, non-native annual grassland, agriculture, disturbed, reservoir, ephemeral stream, and intermittent stream. The habitats and their acreages are shown in **Table 5**.

Specific to the *Additional Area* it contains 9.49-acres of the Chamise Chaparral community, 0.65-acre of the Coast Live Oak Shrubland Alliance community, 2.27-acres of coast live oak woodland, 0.48-acres of the leather oak-chamise chaparral, and 0.31-acre of the common manzanita chaparral community (**Table 5**). The *Additional Area* also contains the two special-status plant species and associated habitat: Holly-leaved ceanothus, approximately 226 individuals within 4.49-acres were observed in the *Additional Area*; and Narrow-anthered brodiaea, approximately 36 individuals were observed in the *Additional Area*.

Table 5 – Vegetation Alliances and Terrestrial Land Cover Types in the Project Site, the Development Area, and the Additional Area[15]

Vegetation Alliance and Terrestrial Land Cover Types	Approximate Pre-Project Acreages in Project Site[1]	Approximate Acres in Development Area	Avoided Acreages in Project Site	Acres within *Additional Area*	Avoided Acreages Project Site plus Additional Area
Coast Live Oak – CA Bay Woodland	8.24	0.55	7.96	2.27	9.96
Blue Oak Woodland	8.50	0	8.50	0.0	8.5
Coast Live Oak (Riparian)	2.68	0	2.68	0.0	2.68
Coast Live Oak – Blue Oak Forest	44.42	0.68	43.74	0.0	43.74
Common Manzanita Chaparral	4.06	1.11	2.95	0.31	3.26
Leather Oak – Chamise Chaparral	6.16	1.08	5.08	0.48	5.56
Chamise Chaparral	74.47	14.98	59.49	9.49	68.98
Coast Live Oak – CA Bay Scrub	28.42	8.96	19.46	0.65	20.11
Coyote Bush Scrub	1.14	0	1.14	0.0	1.14
Leather Oak Chaparral	6.22	4.36	1.86	0.0	1.86
Non-native Annual Grassland	19.25	2.48	16.77	0,0	16.77
Agriculture	13.81	0.70	13.11	0.0	13.11
Disturbed/Graded	11.55	6.95	4.61	0.0	4.61
Reservoir	1.61	0	1.61	0.0	1.60
Ephemeral Stream	0.47	0	0.47	0.0	0.47
Intermittent Stream	1.29	0	1.29	0.0	1.29
Total	**232.29**	**41.85**	**190.72**	**13.20**	**203.64**

[1] The study area for the surveys included approximately 245.49-acres (**Exhibit B-1** Figure 2), including an approximately 13-acre portion of a parcel directly adjacent to the northwestern portion of the project site under the same ownership to ensure that setbacks from sensitive biological resources (if warranted) were adequate.
Source: WRA Environmental Consultants, February 2020 (**Exhibit B-1**)

a.-b. Special-Status Plants: Based upon a review of the resource databases listed in **Exhibit B-1** (Appendix A), 27 special-status plant species have the potential to occur in the project site. Five of these (narrow-anthered brodiaea [*Brodiaea leptandra*], holly-leaved ceanothus [*Ceanothus purpureus*], nodding harmonia [*Harmonia nutans*], Sharsmith's western flax [*Hesperolinon sharsmithiae*], and green monardella [*Monardella viridis*]) were observed in the project site and are discussed in further detail below (WRA Environmental Consultants, February 2020 - **Exhibit B-1**).

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 1,322 individuals within 33.48-acres were observed within the project site, and approximately 226 individuals within 4.49-acres were observed in the adjacent parcel that was surveyed. Approximately 356 individuals within 9.96-acres are located in the development area.

Narrow-anthered brodiaea is a perennial herb in the brodiaea family (Themidaceae) that blooms from May to July. It typically occurs in broadleaf upland forest, chaparral, and lower montane coniferous forest habitat at elevations ranging from 360 to 3,000 feet. Approximately 17 individuals were observed within less than 0.01-acre of the project site, and approximately 36 individuals were observed in the adjacent parcel that was surveyed. No individuals are located within the development area.

[15] The acreages identified may slightly differ from acreages identified in the property's other various parcel and project reports and assessments, and associated CEQA disclosures/determinations due to the various mapping platforms, spatial characteristics, modeling data, and rounding utilized by the various preparers. Because approximate biological/plant communities, habitats, and project acreages have been corroborated through County GIS mapping, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

Nodding harmonia is an annual forb in the sunflower family (Asteraceae) that blooms from March through May. It typically occurs on rocky or gravelly substrates derived from volcanic rock within chaparral and cismontane woodland habitat at elevations ranging from 240 to 3,170 feet. Approximately 21 individuals within 0.08-acre were observed within the project site. The project has been designed to avoid Nodding harmonia: no individuals are within the development area.

Sharsmith's western flax is an annual herb in the flax (Linaceae) family that blooms from May through July. It typically occurs on serpentinite open chaparral habitat ranging in elevations from 884 to 1,000 feet above msl. Approximately 10 individuals within less than 0.01-acre were observed in the project site. No individuals are within the development area.

Green monardella is a perennial rhizomatous herb in the mint (Lamiaceae) family that blooms from June through September. It typically occurs in broad-leafed upland forest, chaparral, and cismontane woodland habitat at elevations ranging from 300 to 3,100 feet above msl. Approximately 347 individuals within 0.51-acre were observed in the project site. Approximately 77 individuals within approximately 0.10-acre are within the development area.

Holly-leaved ceanothus, Sharsmith's western flax, and narrow-anthered brodiaea are CNPS California Rare Plant Rank (CRPR) List 1B species, which are considered "Rare, Threatened, or Endangered in California and Elsewhere" and are 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 (CFGC) and are eligible for state listing. Green monardella and nodding harmonia are CNPS California Rare Plant Rank (CRPR) List 4 species, which are considered "Plants of Limited Distribution – A Watch List". While these species are not state or federally listed species at this time, the species and their associated habitats are limited 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.[16]. Pursuant to Napa County General Plan Policy CON-13 the County requires 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 to provide protection for habitat supporting special-status species through buffering or other means..

The project as proposed would remove the following special-status plants and/or populations occurring within the project site:

- The project site contains approximately 1,322 holly-leaved ceanothus individuals within approximately 33.48-acres, with approximately 356 individuals within 9.96-acres occurring in the development area. The project as proposed would remove approximately 30% of this special-status plant species habitat and approximately 27% of the individual plants. Considering the Additional Area the project would remove approximately 26% of this plant species habitat and approximately 23% of the individual plants.
- The project site contains approximately 347 green monardella individuals within approximately 0.51-acre, with approximately 77 individuals within 0.10-acre occurring in the development area. The project as proposed would remove approximately 20% of this special-status plant species habitat and approximately 22% of the individual plants. There is no green monardella located within the Additional Area.

The project site contains approximately 63.84-acres of oak woodland (with 1.24-acres in the development area), 6.16-acres of leather oak-chamise chaparral (with 1.48-acres in the development area), and 4.06-acres of common manzanita chaparral (with 1.11-acres in the development area) (WRA Environmental Consultants, February 2020 - **Exhibit B-1**). These biological communities are considered sensitive by Napa County (Napa County, 2005. Furthermore, the coast live oak California bay woodland, coast live oak blue oak forest, common manzanita chaparral, and leather oak chamise chaparral is also considered to be potential special-status species habitat, because it contains the biological and ecological characteristics necessary to support. holly-leaved ceanothus, Sharsmith's western flax, and narrow-anthered brodiaea) in addition to containing the special-status plant species populations and individuals:

- The project site contains approximately 8.24-acres of coast live oak – California bay woodland, with 0.55-acres occurring in the development area. The project as proposed would remove approximately 6.7% of this potential special-status plant species habitat. Including the Additional Area the project would remove approximately 5.2% of this potential habitat.
- The project site contains approximately 44.42-acres of coast live oak – blue oak forest, with 0.68-acre occurring in the development area; the project as proposed would remove approximately 1.5% of this potential special-status plant species habitat.
- The project site contains approximately 4.06-acres of common manzanita chaparral, with 1.11-acres occurring in the development area; the project as proposed would remove approximately 27.3% of this potential special-status plant species habitat. Including the Additional Area the project would remove approximately 25.4% of this potential habitat.

[16] 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.

- The project site contains approximately 6.16-acres of leather oak – chamise chaparral, with 1.48-acres occurring in the development area. The project as proposed would remove approximately 17.5% of this potential special-status plant species habitat. Including the Additional Area the project would remove approximately 16.3% of this potential habitat.

Table 6 provides a summary of these project site and development area acreages, and sensitive plant species/populations and habitat.

Table 6 – Proposed Removal of Vegetation Alliances and Special-Status Plants with the Proposed Project[14]

BIOLOGICAL FEATURE	PROJECT SITE	DEVELOPMENT AREA		DEVELOPMENT AREA WITH ADDITIONAL AREA	
Special-status Plants	**Total Acres/Individuals**	**Acres/Individuals**	**%Removed**	**Acres/Individuals**	**% Removed**
Holly-leaved ceanothus	33.48 acres 1,322 indiv.	9.96 acres 356 indiv.	Acres 29.7% Individuals 26.9%	37.97-acres 1,548 indiv.	Acres 26.2% Individuals 23.0%
Green monardella	0.51 acre 347 indiv.	0.10 acre 77 indiv.	Acres 19.6% Individuals 22.2%	n/a <0.01-acre 0 indiv.	Acres 19.6% Individuals 22.2%
Narrow-anthered brodiaea	0.01 acre 17 indiv.	0	0	n/a <0.01-acre 36 indiv.	0
Nodding harmonia	0.08 acre 21 indiv.	0	0	n/a <0.01-acre 0 indiv.	0
Sharsmith's western flax	0.01 acre 77 indiv.	0	0	n/a <0.01-acre 0 indiv.	0
Vegetation Alliances and Terrestrial Land Cover Types	**Acres in Project Site**	**Acres in Development Area**	**% Removed**	**Acres**	**% Removed**
Coast Live Oak – CA Bay Woodland*	8.24	0.55	7.9%	10.51	5.2%
Blue Oak Woodland*	8.50	0	0	8.5	0
Coast Live Oak (Riparian)*	2.68	0	0	2.68	0
Coast Live Oak – Blue Oak Forest*	44.42	0.68	1.8%	44.42	1.8%
Common Manzanita Chaparral*	4.06	1.11	27.3%	4.37	25.4%
Leather Oak – Chamise Chaparral*	6.16	1.08	17.5%	6.64	16.3%
Chamise Chaparral	74.47	14.98	20.1%	83.96	17.8%
Coast Live Oak – CA Bay Scrub	28.42	8.96	31.5%	29.07	30.8%
Coyote Bush Scrub	1.14	0	0	1.14	0
Leather Oak Chaparral	6.22	4.36	70.1%	6.22	70.1%
Non-native Grassland	19.25	2.48	12.9%	79.25	3.13%
Agriculture	13.81	0.70	5.1%	13.81	5.1%
Disturbed/Graded	11.55	6.95	61.9%	11.55	61.9%

* Considered sensitive by Napa County
Source: WRA Environmental Consultants, February 2020 (**Exhibit B-1**)

Holly-leaved ceanothus and Green monardella are relatively tolerant to disturbance and have been repeatedly observed by the project biologists on the edge of vineyard avenues and other disturbed areas within Napa County. The design of the vineyard project avoids three of the five sensitive plant species and populations occurring in the project site (Narrow-anthered brodiaea, Nodding harmonia and Sharsmith's western flax), and avoids approximately 74% of the Holly-leaved ceanothus habitat and approximately 77% of the individuals and avoids approximately 80% of the Green monardella habitat and approximately 78% of the individuals, considering the Additional Area.

The project design also allows for connectivity of the retained special-status plant species between each population, adjacent properties, and adjacent suitable habitat (WRA, February 2020 - **Exhibit B-1**). Additionally, WRA has repeatedly observed these two plant species on the edge of vineyard avenues and other disturbed places within Napa County because they are relatively tolerant to disturbance, indicating for this project that peripheral remnant individuals of these species (adjacent to cleared areas) are unlikely to be negatively affected by the new vineyards while those situated deeper within the avoided remnant habitats will be provided with buffering benefits. Concluding that no further recommendations related to these species are warranted.

For these reasons, complete avoidance of Narrow-anthered brodiaea, Nodding harmonia and Sharsmith's western flax, avoidance of 70% to 80% of the Holly-leaved ceanothus and Green monardella habitat and individuals, and that the project design allows for connectivity of retained special-status plant species between each population, adjacent properties, and adjacent suitable habitat, impacts to special-status plans species and their habitat is consider less than significant. While the project design provides for adequate avoidance and connectivity of retained special-status plant species and habitat, the project does not preserve or protect these species and habitat from future development, which is considered potentially significant indirect cumulative 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 24c[17], specifically calls for the preservation or replacement of lost oak woodland (on an acreage basis) at a 2:1 ratio of like habitat when retention of existing vegetation is found to be infeasible.

The project site contains approximately 63.84-acres of oak woodland, with 1.23-acres occurring in the proposed development area. Within this 1.23-acres of oak woodland there is approximately 0.82-acres of Vegetation Canopy Cover (**Exhibit B-3**). In order to maintain 2-acres preserved for 1-acre impacted consistent with Conservation Policy CON-24c, that specifies 2:1 preservation ratio, approximately 21.28 acres can be converted to comply with this policy. Therefore, the project's proposed conversion of 1.23-acres of oak woodland would in part comply with this policy directive. The project does not include the permeant preservation of avoided oak woodland and cover canopy, which is considered a potentially significant impact.

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 *Subsection e* below for further discussion.

To reduce potential impacts to special-status plant species and habitat, and to oak woodlands and cover canopy to a less-than-significant level **Mitigation Measure BIO-1(a** and **d)** would be implemented to preserve these species, habitats, and biological community at a 2:1 ratio, and canopy cover at a 3:1 ratio.

With the implementation of **Mitigation Measure BIO-1(a** and **d)**, the leather oak-chamise chaparral, common manzanita chaparral, and oak woodland on the project site would be preserved at a 2:1 ratio, and oak woodland would be preserved at a 2:1 ratio. The permeant preservation 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 (also see the discussion under *Subsection d* below).

To reduce impacts to the leather oak-chamise chaparral and common manzanita chaparral to a less-than-significant level and comply with Napa County General Plan Conservation Element Policy CON-17 (discussed further under *Subsections b-c* below), 2.16-acres of leather oak-chamise chaparral and 2.22-acres of common manzanita chaparral would be preserved through implementation of **Mitigation Measure BIO-1(a** and **d)** (consistent with the 2:1 preservation ratio requirement of Policy CON-17e).

To reduce impacts to the oak woodland biological community to a less-than-significant level, and comply with Napa County General Plan Conservation Element Policy CON-24 and NCC Section 18.108.020 (D) (discussed further under *Subsection* e), a minimum of 2.48-acres of oak woodland that includes a minimum of 2.46-acres of associated Vegetation Canopy Cover, would be preserved through implementation of **Mitigation Measure BIO-1(b),** consistent with the 2:1 oak woodland preservation requirement (2.48-acres preserved for the 1.24-acres of woodland removed), and consistent with the 3:1 preservation ratio requirement of Section 18.18.020(D-E) (2.46-acres preserved cover canopy for 0.82-acres impacted).

Additionally, while **Mitigation Measure BIO-1** would reduce potential direct and indirect impacts of the project, the cumulative impacts to special-status plant species and associated habitat know to occur within the project parcels and the immediate area as a result of past, present, and potential future agricultural conversions projects is considered a cumulatively significant impact (Also see **Section XXI** - **Mandatory Findings of Significance**).

With the implementation of **Mitigation Measure BIO-1**, impacts to oak woodland and associated cover canopy, leather oak – chamise chaparral, and common manzanita chaparral would be reduced to a less-than-significant level by permanently preserving 24.5-acres of the habitat onsite (consistent with the NCC Section 18.108.020 (D) 3:1 vegetation canopy cover preservation ratio and the Napa County General Plan Conservation Element Policy CON-17 2:1 preservation ratio requirement), as shown in **Exhibit B-3**.

Implementation of **Mitigation Measure BIO-1** would reduce impacts to special-status plant species and associated habitat, and oak woodland to a less-than-significant level in that it would: i) avoid and preserve no less than 24.5-acres of the project site's special-status plant species habitat, ii) avoid and preserve 70 to 80% of the project site's special-status plant populations/individuals and habitat, iii) result in consistency with General Plan Goal CON-3 and Policy CON-13 , and Conservation Regulations (NCC Chapter 18.108), because it would preserve special-status plants and their habitat, iv) result in consistency with Goal CON-2[11] 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, and maintain wildlife movement and habitat

[17] 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.

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

connectivity, and v) permanently preserve a minimum of 2.48-acres of developable oak woodland (that includes a minimum of 2.46-acres of associated developable Vegetation Cover Canopy.

Furthermore, implementation of **Mitigation Measure BIO-1** would not substantially affect the feasibility of the project or the continued viability of agricultural use of the project site, in that it would allow the owner/permittee to develop and operate approximately 33.1 net planted acres of vineyard on the approximately 238-acre holding.

Mitigation Measure BIO-1: The owner/permittee shall implement to following measures to minimize potential impacts to special-status plant species (i.e., holly-leaved ceanothus and green monardella) and its habitat, and to oak woodlands and associated cover canopy:

a. Special Status Plant and Habitat Preservation: Revise Erosion Control Plan #P21-00206-ECPA prior to approval to identify a minimum of 19.92-acres of holly-leaved ceanothus plant species and habitat, 0.2-acre green monardella plant species and habitat, 2.22-acres of common manzanita chaparral vegetation alliance, and 2.16-acres of leather oak – chamise chaparral sensitive vegetation alliance, resulting in an overall special-status plant and plant habitat preservation area of no less that 24.5-acres. These areas will be identified as Special Status Plant and Habitat Preservation Areas in the revised ECPA and be permanently preserve as specified in **Mitigation Measure BIO-1c**.

b. Oak Woodland/Vegetation Canopy Cover Preservation: Revise Erosion Control Plan #P21-00206-ECPA prior to approval to identify and permanently preserve a minimum of 2.48-acres of developable oak woodland (i.e., on land with slopes less than 30% and located outside of aquatic resource setbacks pursuant to NCC Sections 18.108.025 and 18.108.026) that includes a minimum of 2.46-acres of associated developable Vegetation Cover Canopy generally as shown in (**Exhibit B-3**). These areas shall be identified as Oak Woodland/Vegetation Canopy Cover Preservation Areas in revised #P21-00206-ECPA and be permanently preserve as specified in **Mitigation Measure BIO-1c**.

c. The Preservation Areas identified in **Mitigation Measure BIO-1 a** and **b** shall be identified and designated for preservation in a mitigation easement with an accredited land trust organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to Napa County, as approved by the Director of PBES. Areas placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limed 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. Upon County Counsel's review and approval as to the form of the mitigation easement or other means of permanent protection, the owner/permittee shall record the restriction prior to the commencement of any ground disturbing activities or vegetation removal, or within 12 months of project approval, whichever occurs first: in no case shall earthmoving activities or vegetation removal be initiated until said restriction is recorded. Any request by the owner/permittee for an extension of time to record the mitigation easement shall be considered by the Director of PBES and shall be submitted to Napa County prior to the 12-month deadline and shall provide sufficient justification for the extension.

d. In accordance with Napa County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any special-status plants/populations inadvertently removed as part of development authorized under #P21-00206-ECPA shall be replaced on-site at a ratio of 3:1 at locations with 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 the special-status plans specie(s) being removed including sizes and/or application rates, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation and monitoring schedule, and vi) performance standards with a minimum success rate of 80% to ensure the success of re-vegetation efforts. Any replaced special-status plants shall be monitored for a period of at least three years to success criteria are met.

Special-Status Animals: Based upon a review of the resource databases listed in **Exhibit B-1** Appendix A, three special-status animal species (white-tailed kite [*Elanus leucurus*], black-chinned sparrow [*Spizella atrogularis*] and foothill yellow-legged frog [*Rana boylii;* FYLF]) have the potential to occur in project site. These species are discussed in further detail below (WRA Environmental Consultants, February 2020 - **Exhibit B-1**).

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 provides suitable year-round habitat for white-tailed kites, including stands of oaks for nesting and relatively open areas in close proximity for foraging. This species was not observed during the biological surveys; however, a focused bird survey was not performed.

The black-chinned sparrow is a summer resident in dry brushlands, and mountain slopes up to 8,800 feet in elevation. This species breeds in California in the inner north and south Coast Ranges, Transverse Range, Peninsular Range, the western slopes of the Sierra Nevada from Kern to Mariposa Counties, irregularly in Tehama County, and locally on mountains of southeastern California. This species inhabits scrub, chaparral, and sagebrush habitats and prefers sloping, dense, xeric environments, often with ceanothus, manzanita, sagebrush, and chamise. This species is rare in Napa County, but the project site provides stands of dense, mature chaparral that are suitable for nesting.

FYLF historically occurred in coastal and mountain streams from southern Oregon to Los Angeles County but has declined in many parts of this range. This species is strongly associated with perennial streams, and prefers shallow, flowing water with a rocky substrate. FYLF individuals do not typically move overland and are rarely observed farm from a source of permanent water (typically less than 10 feet). Portions of intermittent streams within the project site provide a rocky substrate and may be occupied when the stream is flowing. There were no observations of this species during the biological surveys; however, a focused survey was not performed.

In addition to the special-status bird species discussed above, 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. 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.

When inundated and flowing, on-site streams have the potential to support FYLF that have moved upstream from off-site perennial streams. Because the on-site stream draws down following the end of the wet season, on-site breeding by this species is unlikely. However, there still is the potential for direct and indirect impacts to FYLF from the proposed project should individuals remain in on-site streams during the spring when project activities typically commence, which would be a potentially significant impact.

Potentially significant and significant impacts to special-status birds and FYLF would be reduced to less-than-significant levels through the implementation of **Mitigation Measure BIO-2** and **Mitigation Measure BIO-3**, described below.

Mitigation Measure BIO-2: The owner/permittee shall revise Erosion Control Plan #P21-00206-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 California Department of Fish and Wildlife (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/or the USFWS or CDFW.

d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.

e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. 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-3: The owner/permittee shall revise Erosion Control Plan #P21-00206-ECPA prior to approval to include the following measures to minimize potential impacts on 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 determine if the 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 and CDFW prior to commencement of work.

b. If the streams are wet during the pre-construction survey, the qualified biologist shall conduct two surveys along the streams at least 14 days prior to project initiation. The surveys must have remarkably different light angles (e.g., early morning and early afternoon), but may be conducted on the same day. Survey areas (streams) will be systematically walked upstream, zig-zagging 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 FYLF are present during the pre-construction survey, no additional measures are warranted.

c. If FYLF are present, one daytime survey shall be completed within 48 hours of project initiation. If 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 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 CDFW. The worker education program will consist of a qualified biologist providing construction personnel with information regarding the identification and ecology of 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 FYLF, and the role of the on-site biologist.

With the implementation of **Mitigation Measure BIO-1** through **BIO-3**, impacts to special status-species and associated habitat, and oak woodland and associated cover canopy would be reduced to a less-than-significant level through: the permanent preservation of at least 24.5-acres of special-status habitat and 70%-80% of the onsite special-status plant species; the permanently preserve at least 2.48-acres of oak woodland that includes a minimum of 2.46-acres of cover canopy (consistent with the NCC Section 18.108.020 (D) 3:1 vegetation canopy cover preservation ratio; and, requiring pre-construction surveys for the presence of special-status animal species. See S*ubsection* c below regarding riparian habitat.

c. The project site contains one primary intermittent blue-line stream and two ephemeral tributaries of the stream, as well as five additional ephemeral streams, considered sensitive natural resources under Section 404/401 of the CWA and Section 1602 of the CFGC. The ephemeral stream located in the southeast corner of the western parcel, as well as the intermittent stream are mapped as USGS steams and therefore meet the Napa County stream definition pursuant to NCC Section 18.108.025. The proposed project has been designed to avoid these tributaries and any associated riparian habitat, in addition to being 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 significant impacts to riparian habitat or on-site streams or tributaries.

The Study Areas do not contain vernal pools, wetlands, or seasonal wetlands, therefore no impacts to vernal pools or wetlands are expected (WRA Environmental Consultants, February 2020 - **Exhibit B-1**).

d. The proposed project involves the installation of vineyard totaling approximately 40.7 gross acres (33.1 net acres) across two parcels comprising the project site. New wildlife exclusion fencing would connect with existing fencing on the project site to enclose proposed vineyard Blocks A and B together, proposed vineyard Block C individually, and proposed vineyard Blocks D and E together.

The project site is located within the mapped "Essential Connectivity Area," in the California Essential Connectivity Project as per CDFW and Caltrans (WRA Environmental Consultants, February 2020 - **Exhibit B-1**). The project site is located near the western boundary of this mapped area, which is approximately 9 miles wide in that vicinity. At the scale of landscape linkages, this tract provides connectivity between baylands of San Pablo Bay and areas from northern Napa County northward. Given the relatively small size of the project area (relative to the width of the corridor tract) and the lack of apparent development impacts within the more central portion of this tract, agricultural expansion within the project area is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. At a more local scale, the project site provides connectivity between a patchwork of undeveloped lands (primarily chaparral, grassland, and woodlands), and agricultural (vineyards) and low-density, rural developments. While the proposed project (vineyard) would result in portions of the site having reduced potential for on-site wildlife movement, the retention of other on-site areas of contiguous chaparral, grassland, and woodland, with direct connectivity with similar habitats on neighboring properties, will allow for continued local wildlife movement (WRA Environmental Consultants, February 2020 - **Exhibit B-1**). Maintaining this connectivity should provide for continued cross-pollination and gene flow, as well as local wildlife movement. Furthermore, the adjacent properties are composed of the same habitats that support a similar suite of plants, presumably including those special-status plants documented on the

project site. Retention of the majority of the documented special-status plants in connected habitat blocks would provide the opportunity for these species to maintain viable populations both on the property and, more broadly, in the region. Additionally, the on-sire stream courses presumably provide at least some corridor function for seasonal localized movement, and these will be avoided by the proposed project.

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 the biologist and CDFW recommendations to minimize impacts to wildlife movement, the following condition of approval shall be implemented, should the project be approved.

Fencing – Conditions of Approval: The owner/permittee shall revise Erosion Control Plan #P21-00206-ECPA prior to approval to include a Vineyard Fencing Plan. The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P21-00206-ECPA, and include the following components:

- New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
- Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape.
- Any modifications to the location of deer fencing as specified in Erosion Control Plan #P21-00206-ECPA pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited and would require County review and approval to ensure the modified deer fencing location/plan would not result in potential impacts to wildlife movement.

e. Because the project site is located in the Lake Hennessey and Rector Reservoir Sensitive Domestic Water Supply Drainages, pursuant to NCC Section 18.108.027(B) (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 70% of the tree canopy cover and a minimum of 40% of the grass/brush cover existing on the parcel(s) as configured and existing in 1993 is required to be retained as part of the project[18]. Based on the 1993 Vegetation Retention Analysis (**Exhibit B-4**), the overall project site contained approximately 56.9-acres of tree canopy in 1993, with an additional 0.1-acre removed since 1993. With the proposed project, approximately 4.2-acres of tree canopy subject to Section 18.108.027(B) would be removed, which would result in the retention of approximately 93% of the tree canopy present in 1993. The project site contained approximately 199.0-acres of brush/shrub cover in 1993, with an additional approximately 9.3-acres removed since 1993. With the proposed project, approximately 33.8-acres of brush/shrub cover subject to Section 18.108.027(B) would be removed, which would result in the retention of approximately 81% of the brush/shrub cover in 1993. Therefore, the proposed project would be in compliance with Section 18.108.027(B).

On a parcel specific basis, the proposed development would also be in compliance with Section 18.108.027(B). On APN #032-010-027 there was approximately 53.2-acres of tree cover and approximately 79.0-acres brush/shrub cover. The project would remove approximately 4-acres of tree cover and approximately 7.2-acres of brush/shrub cover, this in conjunction with tree and brush cover removed between 1993 and the present would result in the retention of approximately 49.1-acres (or 92%) of the tree cover and approximately 69.1-acres (or 87%) of the brush cover. On APN #032-010-028 there was approximately 3.7-acres of tree cover and approximately 120.0-acres brush/shrub cover. The project would remove approximately 0.2-acres of tree cover and approximately 26.6-acres of brush/shrub cover, this in conjunction with tree and brush cover removed between 1993 and the present would result in the retention of approximately 3.5-acres (or 95%) of the tree cover and approximately 86.8-acres (or 78%) of the brush cover (**Exhibit B-4**).

Further, 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[19] based on the on-site canopy present on June 16, 2016: note tree canopy cover per NCC 18.108.027(B) is different than Vegetation Canopy Cover per NCC 18.108.020(C), in that Vegetation Canopy Cover for the purpose of NCC 18.108.020(C) is defined in NCC Section 18.108.030 for the purposes of NCC 18.108.020 (see footnote), whereas Tree Canopy Cover for the purposes of 18.108.027 is not defined.

As disclosed in *Subsection a* above approximately 1.24-acres of oak woodland and approximately 0.82-acre of associated Vegetation Canopy Cover would be removed because of the project. Pursuant to NCC Section 18.108.020(D) (Vegetation Removal Mitigation) and Section 18.108.020(E) (Preserved Vegetation Canopy Cover), removal of Vegetation Canopy Cover in the AW zoning district to be mitigated by permanent replacement or preservation on an acreage basis at a minimum 3:1 ratio, and that preserved vegetation canopy cover be protected thorough a perpetual protective easement or deed restriction permanently preserving vegetation canopy.

[18] The 1993 configuration of the project site parcels was comprised APNs 032-010-027 and 032-010-028, totaling approximately 276.5-acres as shown in **Exhibit B-4**: as compared the present parcel configuration comprised of APNs 032-560-022 and 032-560-033 totaling approximately (**Exhibit A-1**).

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

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. As shown in **Exhibit B-3** the owner/applicant has identified 2.46-acres of developable vegetation cover canopy that could be preserved to meet this provision. Implementation of **Mitigation Measure BIO-1 a** through**-c** would result in the permanent protection and preservation of a minimum of 2.48-acres of developable oak woodland that includes a minimum of 2.46-acres of developable Vegetation Canopy Cover, as generally shown in **Exhibit B-3**. In total the project as designed would avoid approximately 98% of the project site's 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:

- 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.
- In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P19-00496-ECPA shall be replaced on-site with fifteen-gallon native trees at a ratio of 2:1 at locations approved by the planning director. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan. Replacement trees shall be monitored and maintained as necessary for a minimum of 3 years to ensure they achieve at least 80% survival. If tree plantings are not achieving this success criteria during any monitoring year, the owner/Permittee shall be responsible for replacement tree plantings and monitoring them for an additional 3 years to ensure they achieve at least 80% survival.
- 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.

Additionally, as discussed in *Subsections* a and b above, the proposed project will be designed to incorporate the identified mitigation measures to reduce potential impacts to oak woodlands, sensitive natural communities and special-status species to a less than significant level. 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?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion

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

The following was utilized in this analysis and is incorporated herein by reference: Archaeological Resource Service, August 16, 2019, A Cultural Resources Evaluation of Five Proposed Vineyard Blocks and Access Roads within Chappellet Vineyards, 1581 Sage Canyon Road, St. Helena, Napa County, California (**Exhibit C**): contents confidential.

Archaeological Resource Service conducted a cultural resources evaluation for the project site which included a check of information on file with the regional office of the California Historical Resources Information System (CHRIS) 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 to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a-b. The cultural resources study (Archaeological Resource Service, August 2019) did not identify any significant artifacts or potentially significant cultural resources in the development area.

Although no cultural resources were found within the development area, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, the proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidently. The owner/permittee, as part of this ECPA and described in the project description, has also included environmental commitments in the project design and implementation in the event that archaeological, cultural, or historical resources are discovered during construction.

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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

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

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

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

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

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

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

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

f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion

a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and 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. A series of northwest by southeast-trending Quaternary faults are mapped within about 0.5 mile to the northeast and southwest of the project site. The closest active fault is the Green Valley Fault, located approximately 18 miles southeast (O'Connor Environmental, Inc., February 2020 - **Exhibit D**). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.

   ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological 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 or shallow landslides within the proposed vineyard blocks, and no slope failures were observed, despite the presence of non-active landslides within the project site outside of the proposed development area (O'Connor Environmental, Inc., February 2020 - **Exhibit D**). The evaluation report stated that the proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. The impact would therefore be considered less than significant (also see *Subsection* c below for additional discussion regarding slope stability and landslides).

b. The project site is underlain by Guenoc-rock outcrop complex, 5 to 30% slopes; Hambright rock-outcrop complex, 30 to 50% slopes; Rock outcrop-Hambright complex, 50 to 75% slopes; Sobrante loam, 5 to 30% slopes; and Sobrante loam, 30 to 50% 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), earth-disturbing activities (other than installation of winterization measures) cannot be performed between October 1 and April 1; in municipal watersheds like the ones that the project site are located in, earth-disturbing activities (other than installation of winterization measures) cannot be performed between September 1 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 ranging from 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E, as specified in the ECP. For the first three 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 David Steiner, CPESC, CPSWQ (**Exhibit E**), the proposed conversion of approximately 41.8-acres of vegetation to vineyard, vineyard avenues and vineyard access roads is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 7**). Under existing conditions, the annual soil loss is anticipated to average 14.92 tons per acre per year across the project area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 9.93 tons per acre per year, or a reduction of approximately 33% as compared to existing conditions.

Table 7 – USLE Soil Loss Analysis

Vineyard Block	Pre-project Soil Loss (tons/acre/year)	Post-project Soil Loss (tons/acre/year)	Difference	Percent Change (approximate)
A	4.03	2.84	-1.19	-30%
B	2.71	1.28	-1.43	-53%
C	2.83	2.29	-0.54	-19%
D	1.96	1.73	-0.23	-12%
E	3.39	1.79	-1.60	-47%
Total	**14.92**	**9.93**	**-4.99**	**-33%**

Source: David Steiner, CPESC, CPSWQ, December 2020, Soil Loss Analysis (**Exhibit E**)

As indicated in the Background Section of this Initial Study (Page 4) recent project revisions have reduced the project by approximately 1.1-acres to 41.8-acres (from 42.9-acres), reduced Vineyard Block A to 6.0 gross acres (from 7.2-acres) (see **Exhibit A-1** through **Exhibit A-3**). The Project Engineer has reviewed this revision and determined it does not affect the Project Soil Loss Analysis conclusions and accurately reflect the proposed conditions (**Exhibit A-3**).

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 installation of sediment barriers, erosion control blankets, water bars, straw mulching, and other practices as needed.

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

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval:
The following conditions shall be incorporated by referenced into Erosion Control Plan #P21-00206-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 (#P21-00206-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 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E. Cover crop may be disked between rows and sprayed under vines or otherwise cultivated after April 1; after three 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 mapped landslides in the proposed development area. The development area is not in an area prone to ground failure or liquefaction and the proposed project would address any potential soil instability. The proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. 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, 5 to 30% slopes; Hambright rock-outcrop complex, 30 to 50% slopes; Rock outcrop-Hambright complex, 50 to 75% slopes; Sobrante loam, 5 to 30% slopes; and Sobrante loam, 30 to 50% slopes, which exhibit low to moderate 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 on 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?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

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

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

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

Napa County has been working to develop a 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 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 GHG, 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.

In the absence of quantitative GHG thresholds from BAAQMD or a qualified CAP for the County, a no net increase threshold is applied for the evaluation of GHG emissions generated by the proposed project. A no net increase in GHG would ensure that the proposed project would not generate GHGs, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

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

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

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

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO_2), methane, ozone, and the fluorocarbons, which contribute to climate change. CO_2 is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. In this case CO_2 is used as the reference atom/compound to obtain atmospheric carbon CO_2 effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (http://ncasi2.org/COLE/faq.html).[21]

One-time "Construction Emissions" associated with vineyard development projects include: i) the carbon stocks that are lost or released when site vegetation is removed or burned, including any woody debris and downed wood; ii) underground carbon stocks, or soil carbon,

[21] "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO_2. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

released when soil is ripped in preparation for vineyard development and planting (referred to as Project Site Emissions below); and iii) emissions associated with the energy used to develop and prepare the development area and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below).

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

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

Construction Emissions:

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.[22] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 41.8 gross acres of development would be approximately 392.92 MT CO_{2e} (41.8-acres multiplied by 9.4 MT CO_{2e}).

Carbon Stock Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 41.8-acres of existing vegetation to vineyard and new vineyard access roads. 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[23]. 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 624.08 MT C or approximately 2,290.37 MT CO_{2e} (**Table 8**).

Table 8 – 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 CO2e
Oak Woodlands[1]	1.23	95.1	116.97	429.28
Grasslands	2.48	1.4	3.47	12.73
Shrublands[2]	30.41	16.2	492.64	1,807.99
Croplands/Vineyards	0.70	3.8	2.66	9.76
Disturbed/Graded	6.95	1.2	8,34	30.61
Total			**624.08**	**2,290.37**

1 Includes Coast Live Oak – CA Bay Woodland and Coast Live Oak – Blue Oak Forest.
2 Includes Common Manzanita Chaparral, Leather Oak – Chamise Chaparral, Chamise Chaparral, Coast Live Oak – CA Bay Scrub, and Leather Oak Chaparral
Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, October 2024.

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%.[24] Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 1,801.75 MT CO_{2e} (**Table 9**).

[22] As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.
[23] The County recently released a *Regional Carbon Stock Inventory Report for Napa County* (August 2023) that includes estimated carbon stocks in aboveground vegetation. This report uses data from the California Natural and Working Lands Carbon and Greenhouse Gas Model (CALAND) and the factors for aboveground vegetation are consistent with the carbon stock factors developed as part of the 2012 Draft CAP efforts. To provide the most conservative disclosures and assessment this initial study is utilizing the data from the 2012 Draft CAP, which has been determined by the County to reasonably reflect existing and proposed conditions; and therefore, are consider appropriate and adequate for project impact assessment.
[24] Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

Table 9 – 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 CO2e
Oak Woodlands[1]	1.23	89.6	110.21	404.47
Grasslands	2.48	0.8	1.98	7.27
Shrublands[2]	30.41	12.1	367.96	1,350.41
Croplands/Vineyard	0.70	3.5	2.45	8.99
Disturbed/Graded	6.95	1.2	8.34	30.61
Total			**490.94**	**1,801.75**

1 Includes Coast Live Oak – CA Bay Woodland and Coast Live Oak – Blue Oak Forest.

2 Includes Common Manzanita Chaparral, Leather Oak – Chamise Chaparral, Chamise Chaparral, Coast Live Oak – CA Bay Scrub, and Leather Oak Chaparral

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division October 2024.

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 41.8-acre agricultural development would be approximately 28.00 MT CO_{2e} (41.8 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 grasslands and shrublands are close to zero. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 1.56 MT C per year or 4.80 MT CO_{2e} per year.[25]

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

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 2,194.67 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 32.80 MT CO_{2e} per year (**Table 10**).

Table 10 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of $C0_{2e}$		Annual Ongoing Emissions in Metric Tons of $C0_{2e}$	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	392.92	Vehicles and Equipment	28.00
Vegetation and Soil	**1,801.75**	Loss of Sequestration	4.80
Total	**2,194.67**	**Total**	**32.80**

Source: Napa County Conservation Division, October 2023

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 2,194.67 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.

[25] 1.24-acres of oak woodland times 0.425 MTC (=0.53), 2.48-acres of grasslands times 0.004 MTC (=0.01), 30.89-acres of shrublands times 0.004 MTC (=0.12), 0.70-acre of croplands times 0.057 MTC=4.97 (=0.04), and 7.15-acres of disturbed/graded (vineyards) times 0.057 MT C (=0.41)

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 0.34% 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 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E, and the maintenance and establishment of grape vines. These measures in conjunction with the Air Quality conditions of approval (detailed in **Section III [Air Quality]**) would further reduce potential GHG air quality impacts associated with construction and ongoing operation of the proposed project. For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a "considerable" contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 32.80 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 disclosed in **Section IV, Biological Resources,** the proposed project would retain approximately 92%-95% of the tree canopy that existed on the parcels in 1993, and approximately 98% of the oak woodlands that currently exist on the parcels. With implementation of **Mitigation Measure BIO-1**, the project would result in the permanent preservation of a minimum of 2.48-acres of oak woodland that includes a minimum of 2.46-acres of associated vegetation cover canopy all of which will be 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). This measure would also permanently preserve a minimum of 24.5-acres of the parcels shrubland/chaparral habitat. Therefore, the loss in carbon sequestration from the proposed woodland/tree removal is more than offset after incorporation of **Mitigation Measure BIO-1**, by permanently protecting from development two times the amount of lost carbon sequestration due to woodland and shrubland/chaparral conversion.

Specific to grassland, the loss in carbon stock of the grassland would be offset by the planting of vineyard and maintenance of permeant cover crop in the development area. The CAP estimates one acre of vineyard has an above-ground carbon stock of 1.2 MT C/acre and the soil carbon in vineyards is estimated at 34 MT C. Additionally, the establishment and use of cover crops tends to reduce carbon dioxide loss from vineyard soils.

Therefore, conversion of woodland, shrubland, and grassland to vineyard in conjunction with **Mitigation Measure BIO-1** is anticipated to offset the potential loss in sequestration resulting in comparable carbon storage on the site to achieve no net increase in GHG and would be consistent with the State's long-term climate goals

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Discussion

a-b. Installation of the proposed 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.

Storage and mixing of hazardous materials would occur at the existing vineyard headquarters, also owned by Chappellet, located approximately 1.3 miles northwest of the project site (1687 Sage Canyon Road, APN 032-560-031, Lands of Chappellet Winery Inc.). Onsite mixing and loading of hazardous materials may also occur at two on-site locations; an existing site within existing vineyard adjacent to proposed Blocks A and B, and one proposed site within proposed Blocks C. (see **Exhibit A-1** and Supplemental Project Information Forms). Cleaning and washing of chemical application equipment would occur inside the proposed development area as needed. Fertilizers (i.e., nitrogen, magnesium, boron, and zinc) would be distributed through the drip system/foliar up to three times a year. Mildewcides (i.e., Sonata, paraffinic oil, wetable sulfur, and sulfur dust) would be applied up to six times a year. Pre-emergent herbicides (i.e., Weed Slayer or equivalent) would be sprayed for weed management up to two times a year. Project staging areas would be located within the proposed clearing limits.

Assembly Bill 2185 (1985) created the Business Plan Program, commonly known as the Hazardous Materials Business Plan (HMBP) or Community Right-to-Know Program (CalOES 2020). The program's purpose is to inform the public about the hazardous materials being handled at businesses in the community, inform emergency responders about which hazardous materials are handled at a facility, and train employees on handling releases or threatened releases of hazardous materials. An estimated 1,250 facilities in Napa County are subject to the HMBP program. The Napa County Division of Environmental Health began countywide implementation of this program in 1989. The division requires businesses to have an HMBP if they store hazardous materials at levels exceeding the minimum reportable quantities (a total weight of 500 pounds for solids, a total volume of 55 gallons for liquids, and 200 cubic feet for compressed gases). The HMBP consists of owner/operator information, an inventory of chemicals, and an emergency response plan and maps. The HMBP is reviewed by the Napa County Division of Environmental Health and kept on file with the Napa County Division of Environmental Health and the California Environmental Reporting System (CERS).

Current vineyard operations are covered by Hazardous Materials Business Plan (HMBP) DHD[26] Permit #3839 (CERS ID #10170729: DHD Establishment #4303), and winery operations at 1687 Sage Canyon Road are covered by HMBP DHD Permit #4422 (CERS ID #10170731: DHD Establishment #4302) with the Napa County Division of Environmental Health.

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

The project site contains one primary intermittent blue-line stream and two ephemeral tributaries of the stream, as well as five additional ephemeral streams, as shown in **Exhibit B-1** Figure A-2 (WRA Environmental Consultants, February 2020). The intermittent stream and one ephemeral stream located in the southeast corner of the western parcel meet the Napa County stream definition. In accordance with

[26] Digital Health Department (DHD) is the software that the Napa County Division of Environmental Health uses to administer the HMBP Program.

setback requirements and on-site bank slopes (over 5%), appropriate setbacks have been provided for streams in the vicinity of the development area as shown on the Erosion Control Plan (Applied Civil Engineering Inc., February 2020 - **Exhibit A-2**), and therefore they are not expected to be significantly impacted.

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 streams in conformance with code provisions; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions of approval that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. 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 schools are located over 6.5 miles to the west/northwest of the project site within the City of St. Helena (Napa County GIS, Schools Layer). 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 Napa County Airport, located over 14 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 (between 10 and 30 employees) visiting the project site on a temporary basis to implement the project and install vineyards. Up to 20 employees 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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

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. 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."[27]

On March 28, 2022, August 9, 2022, and November 8, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel's groundwater allocation to 0.3-acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis (WAA) would suffice to assess potential impacts on groundwater supplies. Although the Governor, through Executive Order No. N-5-23, rolled back some of the drought emergency provisions in late March 2023, due to current water conditions, the Governor's Emergency Order N-7-22 remains in place and the remaining criteria for the County's interim actions and procedures also remain.

On May 30, 2023, the Napa County Board of Supervisors terminated the Local Emergency due to the 2021-2022 drought but acknowledged that there are still adverse conditions that will continue to affect the Napa Valley groundwater subbasin and the need to continue groundwater management efforts including the interim actions and procedures still exists.

The project site is located in the Lake Hennessey and Rector Reservoir watersheds. Both Lake Hennessey and Rector Reservoir overflow into the Napa River which is tributary to San Pablo Bay. 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)

[27] Refer to Figure 1: Significant Streams subject to Tier 3 analysis are 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.

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 main stem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

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

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan[28]"; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board[29].

The project site contains one primary intermittent stream which is an unnamed dashed blue-line stream on USGS Yountville 7.5-minute topographic quadrangle. Two ephemeral tributaries of the stream as well as five additional ephemeral streams are also present within the project site. The proposed development area is located over a minimum of 35 feet from the ephemeral drainages 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 #P21-00206--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 the creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, and well pump test protocols, management objectives, and community support. The County completed a countywide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report, 2011) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan, 2013). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (2013).

[28] 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.

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

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

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

A Water 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 or (O'Connor Environmental, Inc. Revised January 2023 - **Exhibit F**). The proposed project would be irrigated using groundwater supplied by four existing groundwater wells located in the project site, further describe below. Water for frost protection or heat protection is not proposed as part of the project, and no surface water would be used to irrigate the proposed vineyard.

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 and surface water in accordance with the WAA Guidance Documented adopted by the County May 12, 2015. Two of the project wells that are included in the WAA (Wells PW1 and PW2) were recently constructed under Well Permits #E21-00109 and #E21-00234: Well PW2 is also known as Well 15 in the WAA. The project wells identified in the WAA include Well 2 Well 14, Well 15 (aka. PW2) and Well PW1.

As indicated in the Background Section of this Initial Study (Page 4) recent project revisions have reduced the net planted acreage by ±1.1-acre, from 34.2-acres to 33.1-acres. While the Project WAA bases its analysis and conclusions on 34.2-acres of planted vineyard, rather than 33.1-acres, the values disclosed in the WAA and herein reasonably reflect proposed conditions and have been determined by the County to be adequate and appropriate for CEQA disclosure, review, and impact assessment purposes of the subject application.

The WAA estimated existing groundwater use within the project wells groundwater recharge area (**Exhibit F** Figure 4), and therefore includes groundwater use estimated for other neighboring parcels along with the project parcels. Existing uses within the project wells recharge area use 29.09 AF per year (AF/yr). The proposed groundwater demand for the project wells groundwater recharge area is expected to increase by 17.5 AF/yr (or 0.5 AF/yr per acre of vineyard) with the proposed project (**Table 11**). No other uses will change as part of the proposed project.

Table 11 – Pre- and Post-Project Well Groundwater Recharge Area Use

Water Use Type in Project Well Groundwater Recharge Area	Pre-Project Well Groundwater Recharge Area Water Use (AF/year)	Post-Project Well Groundwater Recharge Area Water Use (AF/yr)
Proposed Project Vineyard (34.2 net acres)[30]	0	17.5
Non-project Vineyard Irrigation	11.8	11.8
Orchard	2.8	2.8
Chappellet and Continuum Winery	7.4	7.4
Winery Guest Use	0.54	0.54
Employee Use	0.55	0.55
Residential	6.0	6.0
Total	**29.09**	**46.59**

Source: O'Connor Environmental, Inc., Revised January 2023– **Exhibit F**

[30] As indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the net planted acreage by 1.1-acres, from 34.2-acres to 33.1-acres. While the Project WAA bases its analysis and conclusions on 34.2-acres of planted vineyard, rather than 33.1-acres, the values disclosed in the WAA and herein reasonably reflect proposed conditions and have been determined by the County to be adequate and appropriate for CEQA disclosure, review, and impact assessment purposes of the subject application.

Well Interference: A WAA that includes a Tier 2 analysis (Well and Spring Interference Criterion) is not necessary for this project because there are no known non-project wells located within 500 feet of the project well (**Exhibit F**).

Surface Water Interference: According to the County's WAA Guidelines (Napa County, 2015), if a project well is within 1,500 feet of a Significant Stream a Tier 3 WAA is required. The nearest Significant Streams to the project wells include two unnamed tributaries to Conn Creek and one unnamed tributary to Rector Creek. The four project wells are all within 1,500 feet of these Significant Streams; therefore, a Tier 3 analysis was prepared (O'Connor Environmental, Inc. February 2020 - **Exhibit F**).

Regarding the tributaries to Conn Creek, Project wells PW1 and Well 15 are located approximately 740 feet and 825 feet from the northern watercourse, respectively. Project Well 15 is located 1,400 feet from the southern unnamed tributary to Conn Creek while PW1 is 1,550 feet away. Regarding the tributary to Rector Creek Project wells 14 and 2 are located 1,025 and 1,480 feet respectively from the head of this unnamed tributary see Figure 6 of **Exhibit F**).

In Well 14 the vertical separation from the water surface elevation (WSE) to the closest stream bed channel elevation is ±305 feet and ±180 feet from the top of screen. In Well 15 the vertical separation between the WSE and the closest stream channel elevation is ±445 feet and ±440 feet from the top of screen. In Well 2 the vertical separation between the WSE and the closest stream channel elevation is ±305 and ±180 feet from the top of screen. Well PW1 is expected to be constructed within very similar materials with a similar depth and extent of perforations to Well 15; therefore, it is expected to have a very similar depth to groundwater and vertical separation from its WSE the closet stream bed channel (±445 feet and ±440 feet from the top of screen), as seen with Well 15.

The Tier 3 WAA (**Exhibit F**) concluded that several existing factors demonstrate that the project wells are likely not hydraulically connected to nearby Significant Streams and that operation of the project wells for existing and proposed uses is not anticipated to adversely affect flows in the Significant Stream or result in significant impacts. As indicated in the WAA the lack of a connection between the unnamed Significant Stream and groundwater in the project wells is illustrated by the following factors: i) the low permeability of the project aquifer; ii) the relatively large vertical and horizontal separation between the project wells and surface waters of the tributaries (or significant Streams); and iii) these stream reaches have been identified as having intermittent flow in a 2015 mapping effort by the Napa County Resource Conservation District (LSCE, 2022), and intermittent streams are believed to have the potential to be connected for only limited periods of time: During the late summer and fall both creeks would most likely be disconnected from groundwater and not susceptible to potential impacts related to pumping of the project well.

For these reasons, the proposed project is not expected to have any significant impacts on streamflow in the nearby Significant Streams or be hydrologic connected to surface waters.

Groundwater Recharge: Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the project aquifer recharge area 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 29 inches per year over approximately 459-acres of the project aquifer recharge area available for recharge and a 23% deep percolate recharge estimate, estimates the average annual groundwater recharge to be approximately 255.3 AF/yr (see **Exhibit F** 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 46.59 AF/yr, which is below the estimated average annual recharge volume of 255.3 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 in the project aquifer is approximately 2,257 AF. The total maximum demand of 76.8 AF/yr for all parcels intersecting the recharge area under extreme drought conditions represents 3% of this storage. Estimated groundwater use in the project recharge area would be equivalent to between 182% and 255% of the extreme drought water year groundwater recharge of 30.1 AF/yr. Although there is uncertainty regarding the volume of groundwater storage, the magnitude of storage relative to use indicates that there is a significant quantity of water stored in the aquifer that would buffer imbalances in recharge and use that occurs in dry years. Higher rates of recharge in wet years compensate for extreme dry years when water use exceeds recharge. Water use greater than recharge may occur in some years, but aquifer storage is believed to be sufficient to maintain access to groundwater in wells in the project well groundwater recharge area (**Exhibit F**).

Considering: i) anticipated annual water use of the proposed project and project well groundwater recharge area of approximately 46.59 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 255.3 AF/yr; ii) aquifer storage is believed to be sufficient to maintain access to groundwater in wells in the project wells groundwater recharge area during an extreme drought; iii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; iv) that the WAA provides a more conservative assessment of anticipated project water demand because it is based on 34.2 planted acres rather than 33.1 planted acres; and v) 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 PBES Department:
>
> 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.

With respect to the public trust doctrine, it requires County to "consider," give "due regard," and "take the public trust into account" when considering actions that may adversely affect a navigable waterway. (*Environmental Law Foundation v. State Water Resources Control Bd.* [2018] 26 Cal.App.5th 844, 861, 868; *San Francisco Baykeeper, Inc. v. State Lands Com.* [2018] 29 Cal.App.5th 562, 569.) There is no "procedural matrix" governing how an agency should consider public trust uses. (*Citizens for East Shore Parks v. State Lands Com.* [2011] 202 Cal.App.4th 549, 576.) Rather, the level of analysis "begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust." (*Environmental Law Foundation*, 26 Cal.App.5th at p. 403.) As disclosed and assessed in this Initial Study, it has been concluded that no harm to (or less-than-significant impacts on) significant streams would result from the proposed project because it is unlikely that the wells have a hydrologic connection to a navigable waterway.

Furthermore, evaluating project impacts within a regulatory scheme like CEQA is sufficient "consideration" for public trust purposes. (*Citizens for East Shore Parks*, 202 Cal.App.4th at pp. 576–577.) The courts have refused to impose factual evaluation requirements or procedural constraints on agencies considering the public trust. (*Citizens for East Shore Parks*, 202 Cal.App.4th at p. 577). Additional justification related to the consideration of public trust resources can be found in **Exhibits B-1, B-2, D, E, F, and G**).

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.

d. 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 70% for proposed Block D, 80% for proposed Blocks A and B, and 85% for proposed Blocks C and E, 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 G** for details related to the following discussion.

e. Proposed erosion control and project features that have the potential to alter natural drainage patterns include sediment barriers, erosion control blankets, water bars, rolling dips, energy dissipators, rock surfaced vineyard avenues, 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 David Steiner, CPESC, CPSWQ (September 2021 - **Exhibit G**). The development area is contained within seven watershed basins: Watersheds 1, 2 and 3 encompass proposed vineyard Blocks A, B and the northern half of Block C, and Watersheds 4, 5, 6, and 7 encompass proposed vineyard Blocks D and E and the southern half of Block C. The Hydrologic Analysis utilized the TR-55 model to conclude that there would be a small peak flow increases in Watersheds 1, 2, 4, 5, 6

and 7 as originally proposed; however, no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions with the installation and maintenance of proposed outsloped vineyard avenues with rock benches (**Table 12**).

Table 12 – Hydrologic Modeling Calculations (TR-55) Results: Runoff Rates

Watershed	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Watershed 1				
Pre-project conditions	7.60	15.79	24.82	28.68
Post-project conditions	8.00	15.47	24.11	29.18
Change (cfs)	0.40	0.32	0.71	0.50
Change (%)	-5.3	-2.03	-2.86	-1.74
Watershed 2				
Pre-project conditions	10.54	18.54	26.76	30.18
Post-project conditions	10.94	18.29	26.22	30.61
Change (cfs)	0.50	0.25	0.54	0.43
Change (%)	-3.8	-1.35	-2.02	-1.42
Watershed 3				
Pre-project conditions	9.25	17.51	26.25	29.94
Post-project conditions	9.25	17.51	26.25	29.94
Change (cfs)	0	0	0	0
Change (%)	0	0	0	0
Watershed 4				
Pre-project conditions	7.75	14.66	21.96	25.04
Post-project conditions	8.09	14.44	21.49	24.49
Change (cfs)	0.34	0.22	0.47	0.45
Change (%)	-4.4	-1.50	-2.14	-1.8
Watershed 5				
Pre-project conditions	9.22	17.45	26.15	29.83
Post-project conditions	9.66	16.99	25.14	30.80
Change (cfs)	0.44	0.46	1.01	0.97
Change (%)	-4.8	-2.64	-3.86	-3.25
Watershed 6				
Pre-project conditions	2.75	5.22	7.83	8.93
Post-project conditions	2.88	5.14	7.65	9.08
Change (cfs)	0.13	0.08	0.18	0.15
Change (%)	-4.73	-1.53	-2.30	-1.7
Watershed 7				
Pre-project conditions	3.11	5.89	8.83	10.07
Post-project conditions	3.25	5.80	8.63	10.25
Change (cfs)	0.08	0.09	0.20	0.18
Change (%)	-4.5	-1.53	-2.27	-1.79

Source: David Steiner, CPESC, CPSWQ, December 2020 (**Exhibit G**)

As indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the project by ±1.1--acres to 41.8-acres (from 42.9-acres), reducing Vineyard Block A to 6.0 gross acres (from ±7.2-acres) (see **Exhibit A-1** through **Exhibit A-3**). The Project Engineer has reviewed this revision and determined that they do not affect the Project Hydrologic Analysis conclusions and accurately reflect the proposed conditions (**Exhibit A-3**).

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

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

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.[31] Furthermore, 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 Lake Hennessey and Rector Reservoir Sensitive Domestic Water Supply Drainages are required to be posted to ensure the all specified measures in the ECPA rare 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 *Subsection* 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 4.99 tons/acre/year, have no negative effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

Furthermore, project approval, if granted, would be subject to the following condition of approval, 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?	☐	☐	☐	☒
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?	☐	☒	☐	☐

[31] 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**).

Discussion

a. The project site is in a rural area of Napa County and the nearest established community is Yountville, approximately 5 miles southwest of the project site. The project site contains vineyard, and the surrounding areas contain vineyards, wineries, rural residential, 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.

b. The project site is zoned as Agricultural Watershed and is designated under the Napa County General Plan as AWOS. Surrounding parcels are also zoned AW and AWOS in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

The proposed project has been analyzed for consistency with applicable sections of the NCC and with the Napa County General Plan. With inclusion of the mitigation measures and conditions of approval, 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 4.99 tons per acre per year and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1** through **BIO-3** is consistent with the Conservation Regulations, and General Plan Policies CON-3 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-3**. 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-3**, 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-3**, 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.
- 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-1**).
- 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 increase in runoff.
- The proposed project is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The proposed project is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The proposed project is consistent with the General Plan land use designation of AWOS and is therefore consistent with Policy AG/LU-20.

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

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Napa Quarry, located approximately 15 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
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped chaparral and oak woodlands interspersed with vineyards, wineries, and rural residences. The nearest residences to the project site are located approximately 700 feet east and south of proposed Block B. Additionally, adjacent proprieties and other properties in the immediate area contain vineyards.

Activities associated with installation of the proposed project, including earthmoving, potentially 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 bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle, and/or light trucks.

Table 13 characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 13**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 13 – 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	Woodchipper	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 14 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 14 – Estimated Distance to dBA Contours from Construction Activities[1]

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

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

Based on distances to existing residences, noise associated with project construction would be approximately 60 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 tractors, backhoes, grape haul trucks, and ATVs and passenger vehicle and/or light trucks, which would occur on a temporary and seasonal basis. **Table 15** 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 15 – Estimated Distance to dBA Contours from Farming Activities[1]

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

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately between 50 and 55 dBA at the closest existing offsite residences.

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of approximately 60 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 2 miles of a public, public-use, or private airport (Napa County GIS: Napa Airport Compatibility Zones and USGS Quad layers). Therefore, no impact would occur.

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

Discussion

a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of vineyard. It does not involve the construction of new homes, businesses, roads, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of 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?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Discussion

a. The proposed project does not include the construction of residential or commercial structures, as discussed in **Section XIV (Population and Housing)**, resulting in no substantial population growth in the area. It is anticipated that these temporary 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?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	☐	☐	☒	☐

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒
e) Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	☐	☐	☐	☒

Discussion

a-b. As 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) that development projects 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 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, but 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 partially developed and contains gravel and dirt roads, two groundwater wells, one reservoir, approximately 12.8-acres of existing vineyard, and the related infrastructure to serve the existing uses. The project site is primarily accessed from an existing private driveway off Sage 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 30 vehicle round trips per day during construction, including truck trips for equipment supply and delivery. After vineyard installation, operational trips that include, but are not limited to irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vineyard inspection, are anticipated to generate 8 to 12 round trips per day. During peak operations for activities such as vineyard pruning, weed and pest control, and harvest, the project is anticipated to generate 10 to 30 round trips. 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 would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

Because the proposed project would be expected to generate up to approximately 30 daily round trips during construction and peak operations and up to 12 daily round 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 private driveway off Sage Canyon Road for project development. The proposed project does not include roadway improvements and/or modifications to the existing driveway or Sage Canyon Road or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The proposed project includes the construction of two short vineyard access roads to connect Vineyard Blocks D and E to Vineyard Block C, but construction would not result in design features that would result in hazardous conditions due to a geometric design feature or incompatible uses. The new access roads would facilitate site circulation and reduce any potentially hazardous conditions. 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 seven vehicles) during pruning periods which last up to 15 days and harvest periods which last up eight days. 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
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Discussion

Notice of the proposed project was sent certified mail to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on December 7, 2020. The County received a response email from the Middletown Rancheria of Pomo Indians of California on December 11, 2020, indicating that the project area is within their aboriginal territories and the correspondence requested project information and tribal consultation. On January 19, 2021, the County replied to the Middletown Rancheria and stated that the application is in process and subject to review pursuant to the California Environmental Quality Act (CEQA) so tribal consultation would be ongoing. The County sent consultation closure notices to the Mishewal Wappo Tribe of Alexander Valley and Yocha Dehe Wintun Nation on January 19, 2020, because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitations were provided.

On August 9, 2023, a site inspection was conducted with The Middletown Rancheria (Michael Rivera) and Napa County Conservation and Engineering Division staff (Donald Barrella and Alexei Belov) as part of requested consultation. In subsequent communications with The Tribe on August 24 and 25, 2023, the follow conditions approval was agreed to further protect and avoid impacts to potential tribal cultural resources:

Tribal Cultural Resources – Conditions of Approval:

- Prior to the commencement of vegetation removal and earth-moving activities pursuant to #P21-00206-ECPA, the owner/Permittee shall provide documentation to Napa County demonstrating that they have engaged with The Middletown Rancheria to provide cultural monitors (if necessary) and that cultural sensitivity training has been provided to site workers.
- Should the owner/Permittee be unsuccessful in engaging with The Middletown Rancheria, the owner/Permittee shall provide, for review and approval by Napa County, a Cultural Monitoring Plan prepared by a professional archaeologist certified by the Registry of Professional Archeologists (RPA). The Cultural Monitoring Plan shall outline monitoring requirements including but not limited to, sensitivity training for site workers, find procedures, and monitoring documentation and reporting procedures.

a-b. As discussed in **Section V (Cultural Resources)** the proposed projects cultural resources study (Archaeological Resource Service, August 2019), no cultural resources were identified or anticipated within the development area. Furthermore, no resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified in the development area. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)**, with incorporation of the conditions specified above because of tribal consultation, would further avoid and reduce potential impacts to unknown resources. The owner/permittee, as part of this ECPA and described in the project description, has also included environmental commitments in the project design and implementation if archaeological, cultural, or historical resources are discovered during construction.

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

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

Discussion

a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater and groundwater would provide irrigation water to the vineyard (see the Groundwater Management, Wells conditions of approval in **Section X [Hydrology and Water Quality]**). 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 sediment barriers, erosion control blankets, water bars, rolling dips, energy dissipators, rock filled vineyard avenues, 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 17.5 AF/yr, with a total of 46.59AF/yr of groundwater for all uses in the project well groundwater recharge area from two existing and two proposed groundwater wells to irrigate the approximately 33.9 net acres of new vineyard[32]. The WAA prepared by O'Connor Environmental, Inc (**Exhibit F**) concluded that after full development, total groundwater demand for the new 33.9 net acres of vineyard on the project site and potential future demands in the project well groundwater recharge area is estimated to be 46.59 AF/yr. Based on site-specific recharge and analysis the project site is estimated to have a total average annual groundwater recharge of 255.3 AF/yr. The project well groundwater recharge area's estimated groundwater demand of 46.59 AF/yr with the proposed project represents approximately 18% of the average annual groundwater allotment. The WAA estimated approximately 2,257 AF of groundwater is currently in storage in the project aquifer, and the total maximum demand of 76.8 AF/yr under extreme drought conditions represents 3% of this storage. Although there is uncertainty regarding the volume of groundwater storage, the magnitude of storage relative to use indicates that there is a significant quantity of water stored in the aquifer that would buffer imbalances in recharge and use that occurs in dry years. Higher rates of recharge in wet years compensate for extreme dry years when water use exceeds recharge. Water use greater than recharge may occur in some years, but aquifer storage is believed to be sufficient to maintain access to groundwater in wells in the project well groundwater recharge area. Therefore, the proposed project would have a less-than-significant impact on water supplies.

   Further supporting this significance determination, as indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the net planted acreage by 1.1-acres, from 34.2-acres to 33.1-acres. While the Project WAA bases its analysis and conclusions on 34.2-acres of planted vineyard, rather than 33.1-acres, the values disclosed in the WAA and herein reasonably reflect proposed conditions and have been determined by the County to be adequate and appropriate for CEQA disclosure, review, and impact assessment purposes of the subject application, and that the WAA provides a more conservative assessment of anticipated project water demand because it is based on 34.2 planted acres rather than 33.1 planted acres. 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 for road base on existing roads on the project site and nearby properties or used to create a level bench in the new vineyard avenue areas. The rock also may be buried back into the vineyard as mulch or temporarily stored in the 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. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statues and regulations. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. **WILDFIRE.** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or	☐	☐	☒	☐

[32] As indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the net planted acreage by 1.1-acres, from 34.2-acres to 33.1-acres.

other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slop instability, or drainage changes? ☐ ☐ ☒ ☐

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). Typical slopes within the project area range from 6% to 23%, with an averaging slope of approximately 13%. Slopes within the proposed access road range from 14% to 31%. The project area generally consists of moderate to steep slopes, with elevations ranging from approximately 1,350 to 1,850 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. Any woody vegetation cleared from the development area and burned would be in accordance with CalFire and BAAQMD requirements. 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
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have the impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

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

a. As discussed in this Initial Study, implementation of #P21-00206-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, green monardella, narrow-anthered brodiaea, nodding harmonia, and Sharsmith's western flax (CNPS List 1B and 4 species) and their habitat has been identified in the project site. With incorporation of **Mitigation Measure BIO-1**, a majority of these special-status plants and their habitat would be avoided and preserved and impacted plants would be replanted at a 3:1 ratio. Implementation of **Mitigation Measures BIO-2** and **BIO-3** would avoid potential impacts to special-status and protected bird species, and FYLF, respectively.

The proposed project includes 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) would result in portions of the site having reduced potential for on-site wildlife movement, the proposed fencing would be limited to the vineyard blocks within the proposed project area and would avoid riparian corridors along existing streams in the area. 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 one primary intermittent stream which is an unnamed dashed blue-line stream on the USGS Yountville 7.5-minute topographic quadrangle. Two ephemeral tributaries of the stream as well as five additional ephemeral streams are also present within the project site. 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 accidently, 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-3** 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 Lake Hennessey and Rector Reservoir watersheds, which both flow into Napa River and San Pablo Bay. The Lake Hennessey Drainage area contains approximately 5,165-acres. In 1993, vineyard acreage within this drainage was approximately 318-acres, or 6.2% of the drainage. Since 1993 approximately 149-acres of additional vineyard (or 2.9% of the drainage) have been developed to vineyard, resulting in approximately 9% of the drainage (or approximately 467-acres) containing vineyard. The Rector Reservoir Drainage area contains approximately 6,972-acres. In 1993, vineyard acreage within this drainage was approximately 335-acres, or 4.8% of the drainage. Since 1993 approximately 1,218-acres of additional vineyard (or 17.5% of the drainage) have been developed to vineyard, resulting in approximately 22.3% of the drainage (or approximately 1,553-acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Lake Hennessey Drainage, that there are approximately 1,027-acres (19.9% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 467-acres), results in a total potential build out of approximately 1,494-acres or approximately 28.9% of the drainage. 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-acres (32.6% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 1,553-acres), results in a total potential build out of approximately 3,823-acres or approximately 54.8% 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., Lake Hennessey and Rector Reservoir watersheds) over the last 28 years (1993-2021) were used to project an estimation of vineyard development for the next three to five years. Over the past 28 years within the Lake Hennessey Drainage, approximately 17-acres of agriculture were developed per year (467 divided by 28). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 51 to 85-acres over the next three to five years within the Lake Hennessey Drainage are considered reasonable estimates. Over the past 28 years within the Rector Reservoir Drainage, approximately 55-acres of agriculture were developed per year (1,553 divided by 28). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 165 to 275-acres over the next three to five 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 to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VIII:

The proposed project (#P21-00206-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 4** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less-than-significant air quality effects of the proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 8** and **9**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project with implementation of Mitigation **Measure BIO-1** is not anticipated to result in substantial or significant GHG emissions and includes the installation of grapevines and a permanent no-till cover crop, in addition to the permeant preservation of no less than 2.48-acreas of oak woodland and 24.5-acres of shrubland/chaparral habitat, which is anticipated to off-set potential impacts related to reductions in carbon sequestration,. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

Project-specific Biological Resources Reconnaissance Surveys (WRA Environmental Consultants, February 2020 - **Exhibit B-1**) 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 CNDDB, CNPS, and USFWS databases. As discussed in **Section IV** (**Biological Resources**), two special-status plant species (holly-leaved ceanothus and green monardella) were identified in the development area. With implementation of **Mitigation Measure BIO-1**, the project would permanently preserve 24.5-acres of the project site's special-status plant species habitat and 2.48-acres oak woodland and associated cover canopy, , and 70%-80% of the project site's special-status plant populations/individuals, which 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 and protected animal species (white-tailed kite, black-chinned sparrow and other protected birds, and FYLF) would be avoided and reduced through implementation of **Mitigation Measures BIO-2** and **BIO-3**. Streams within the project site are outside of the proposed development area and would not be affected by the proposed project. Therefore, the project with mitigation 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 Resource Service, August 2019) did not identify cultural resources in the development area. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidently, 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 4.99 tons/acre/year as compared to existing conditions (**Table 7**). The reason for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of erosion control features which reduce 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 or Lake Hennessey watersheds. Further, As indicated in the Background Section of this Initial Study (Page 4) recent

project revisions have reduced the project by approximately 1.1-acres to 41.8-acres (from 42.9-acres), reduced Vineyard Block A to 6.0 gross acres (from 7.2-acres) (see **Exhibit A-1** through **Exhibit A-3**). The Project Engineer has reviewed this revision and determined it does not affect the Project Soil Loss Analysis conclusions and accurately reflect the proposed conditions (**Exhibit A-3**). Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant. Refer to **Section VII (Geology and Soils)** for additional discussion related to project soil loss.

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 O'Connor Environmental, Inc (Revised January 2023 - **Exhibit F**) indicate that the proposed development consisting of approximately 33.9 net acres of planted vineyard would result in approximately 17.5 AF/yr of groundwater use, with a total water demand of approximately 46.59AF/yr in the project well groundwater recharge area. 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 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. Further, As indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the net planted acreage by 1.1-acres, from 34.2-acres to 33.1-acres. While the Project WAA bases its analysis and conclusions on 34.2-acres of planted vineyard, rather than 33.1-acres, the values disclosed in the WAA and herein reasonably reflect proposed conditions and have been determined by the County to be adequate and appropriate for CEQA disclosure, review, and impact assessment purposes of the subject application, and that the WAA provides a more conservative assessment of anticipated project water demand because it is based on 34.2 planted acres rather than 33.1 planted acres. Refer to **Section X (Hydrology and Water Quality)** for additional discussion related to project water supply and demand.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the TR-55 model was prepared by David Steiner, CPESC, CPSWQ (December 2020 - **Exhibit G**). 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 with the installation and maintenance of the proposed outsloped vineyard avenues with rock benches (**Exhibit G**). Further, as indicated in the Background Section of this Initial Study (Page 4) project revisions have reduced the project by ±1.1-acres to 41.8-acres (from 42.9-acres), reducing Vineyard Block A to 6.0 gross acres (from ±7.2-acres) (see **Exhibit A-1** through **Exhibit A-3**). The Project Engineer has reviewed this revision and determined that they do not affect the Project Hydrologic Analysis conclusions and accurately reflect the proposed conditions (**Exhibit A-3**). 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.

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:

LIST OF TABLES:

LIST OF EXHIBITS: