

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:** Maxville Vineyard Track 1 Erosion Control Plan Application (ECPA) File #P23-00130-ECPA
2. **Property Owner(s):** Koko Nor Corporation
3. **Contact Person, Phone Number and Email:** Dana Morrison, Supervising Planner, (707) 253-4437, dana.morrison@countyofnapa.org
4. **Project Location and Assessor's Parcel Number:** 4000, 4105, 4128, 4300 and 4321 Chiles Pope Valley Road, Saint Helena, CA 94574
Assessor's Parcel Numbers (APN) 025-020-023, 025-020-027, and 025,020-028
(Figures 1 and 2)
Sections 11 and 12, Township 8 North Range 5 West, Mt. Diablo Base and Meridian
Latitude 38° 33' 45" N / Longitude 122° 22' 42" W
5. **Project Sponsor:** Garvey Vineyard Management
2721 Las Amigas Road
Napa, CA 94559
Agent: Coda Rainsford, (CPESC #9225)
HD Vine LLC
Santa Rosa, CA
6. **General Plan Designation:** Agricultural Resource (AR) and Agriculture, Watershed and 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 56.2 gross acres of vineyard (i.e., proposed development area or project area) with approximately 42 net planted acres in ten vineyard blocks (Blocks A through J, located on an approximately 1,025-acre property (i.e., project site). The acreages of each of the ten vineyard blocks are indicated in **Table 1**. The proposed project includes the removal of approximately 306 trees greater than 6-inch diameter at breast height (DBH) within the proposed development area (see **Exhibit A-2.a**).

Table 1 – Proposed Vineyard Block Acreage

Block	Net Acreage	Gross Acreage
A	0.8	1.2
B	0.7	1.1
C	8.9	11.7
D	5.2	6.7
E	2.6	3.8
F	1.6	2.3
G	5.6	7.5
H	1.1	1.7
I	12.7	16.5
J	2.8	3.7
Total	42.0	56.2

HDVine LLC, 2024 – Exhibit A-2

Rock removed during vineyard development would be used for vineyard avenues or landscaping. Short-term stockpiles, if needed, would be located within the proposed development area; no long-term stockpiles are proposed. There would be no transportation of spoils off-site. The proposed vineyard would be irrigated with water diverted to storage from Maxwell Creek under existing water right License 5300 (Application 13711) and License 6874 (Application 16960); the anticipated water demand for irrigation would be approximately 34 acre-feet per year (AF/yr). Irrigation pipelines would be located in roads, vineyards and vineyard avenues, and/or within the proposed development area (**Exhibits A-1, A-2, and A-2.a**).

Erosion Control Measures: Temporary erosion control measures include installation of fiber rolls, straw wattles, silt fences, straw bale dikes, straw mulch applied at 4,000 pounds an acre on areas with a slope greater than 5% and other practices as needed. Permanent erosion control measures include rock benches and a permanent cover crop to achieve minimum density of 80% for all proposed vineyard blocks. Details of the

proposed erosion control measures are provided in the Maxville Track I Erosion Control Plan (dated September 12, 2024) prepared by Coda Rainsford (CPESC #9225) of HDVine LLC, Santa Rosa, California (**Exhibits A-1, A-2 and A-2.a**).

Earthmoving: Earthmoving and grading activities associated with the land contouring and the installation of erosion control measures and subsequent vineyard operations include, but are not limited to, vegetation removal, soil ripping, rock removal and processing, disking, recontouring, incorporation of soil amendments, 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 6 foot by 4 foot spacing pattern for an approximate vine density of approximately 1,816 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 a 12-inch-wide strip by contact or systemic herbicides; no pre-emergent spraying would be utilized as part of cover crop management.

Table 2 lists a general schedule for the construction of the proposed project as identified in #P23-00130-ECPA and **Table 3** outlines typical general ongoing vineyard operations. The vineyard would be developed in two phases, with construction occurring for up to six months during the year. The final implementation schedule is pending action on #P23-00130-ECPA.

Table 2 – Implementation Schedule

April 1 – September 1 ¹	Remove existing vegetation, complete ripping, grading and disking, planting
September 15 ²	All winterization complete, including seeding, straw mulching, and straw wattle installation.
September 16 – March 31	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 to October	a. Harvest. b. Winterize vineyard and vineyard avenues.
November to April	a. Monitor and maintain erosion control measures and repair as necessary during rain events.

Vineyard construction is anticipated to generate about six trips per day for anticipated work crews of up to 24 employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would be limited to tracklaying and rubber-tired vehicles and could include bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Proposed vineyard operations are anticipated to generate eight truck trips annually. Typical operations 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 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 up to four round trips per day for anticipated work crews of up to 20 employees. A tractor and trailer would transport grapes to the onsite winery during harvest. Anticipated equipment for vineyard operations would be limited to track-laying vehicles, rubber-tired vehicles, and ATVs.

Implementation of the proposed project would be in accordance with the Maxville Track I Erosion Control Plan prepared by HDVine LLC (September 2024 – **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 <https://pbes.cloud/index.php/s/wCMQyPRHxWqNRj>.

9. Describe the environmental setting and surrounding land uses.

The approximately 1,025-acre project site (APNs 025-020-023, 025-020-027, and 025,020-028) includes the addresses 4000, 4105, 4128, 4300, and 4321 Chiles Pope Valley Road, approximately 5.4 miles east of the City of Saint Helena, California (**Figures 1 through 3**). Existing dirt or gravel avenues off Chiles Pope Valley Road would provide access to the proposed development area. Existing improvements on the project site include a residence, fencing, existing vineyard (9.75 acres), access roads, worker housing, the Maxville Winery and tasting room, Maxwell Lake, three ponds, four groundwater wells that serve domestic, residential and winery uses, and associated water diversion infrastructure. Water right License 5300 (Application 13711) currently allows for the diversion of water from Maxwell Creek to storage for irrigation of 50 acres¹ (i.e., place of use), License 6874 (Application 16960) allows for diversion to storage for irrigation of 2.5 acres² and stockwatering, and Licenses 32173 and 32174 allow for diversion of water from Maxwell Creek to storage in the ponds for stockwatering, aesthetic, recreational and fish and wildlife preservation and enhancement (**Exhibits A-3 through A-9**). Approximately 520 acres of the project site are protected in a Forever Wild Zone as part of an existing conservation easement (Record #2001-0046663 from 2001 and amended in 2019 with Record #2019-0009087). Surrounding properties are generally used for agricultural and rural residential purposes. The proposed vineyard blocks are located adjacent to rural residential uses to the north, east, and south and is generally surrounded by vineyards. The nearest off-site residences to the project site are located approximately 216 feet to the south, 270 feet to the north, and 982 feet west; the majority of which contain vineyards as well.

The project site is located in Chiles Valley on the east side of Napa County. The general topography in the vicinity of the project site consists of the relatively long, narrow, and flat Chiles Valley which is surrounded by rolling mountains in all directions. Average slopes in the proposed development area range from 5% to 37%, with an average slope of 20%; approximately 1.7 acres are on slopes over 30%. Elevations in the project site range from approximately 920 feet above mean sea level in the valley to approximately 1,680 feet above mean sea level on the ridgeline of the eastern project site.

Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Bressa-Dribble complex, 15 to 30 percent slopes and 30 to 50 percent slopes, and Haire Loam, 2 to 9 percent slopes. There are landslide deposits mapped on the project site and in the immediate vicinity. The closest active faults are located approximately 0.79 mile west and 3.9 miles east of the project site (Napa County GIS faults and earthquakes layer).

The project site is located within the Napa River Watershed (Chiles Creek) and the Sacramento River Watershed (Maxwell Creek), within the Lake Hennessey Sensitive Domestic Water Supply Drainage. Maxwell Creek, a U.S. Geological Survey (USGS) blue-line stream that is tributary to Pope Creek thence Putah Creek, runs through the project site. Maxwell Creek is a County of Napa designated Significant Stream. The project site also contains a number of ephemeral tributaries to Maxwell Creek.

The vegetation types on the project site include Oregon white oak woodland, coastal live oak woodland, blue oak woodland, mixed oak forest, Douglas fir forest, ghost pine forest, red willow thicket, interior live oak scrubland, leather oak chaparral, Baltic rush marsh, hardstem bulrush marsh, wild oat grassland, walnut orchard, vineyard, and ruderal.

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

Responsible (R) and Trustee (T) Agencies

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

Other Agencies Contacted

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

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

Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on February 16, 2024. No request for consultation was received and more than 30 days have elapsed since the County's consultation invitations were provided. Based on confirmation from the Middletown Rancheria Tribe on April 11, 2019, during preparation of the cultural resources study for the proposed project that the project site is within their ancestral area of concern, Middletown Rancheria participated in the fieldwork for the cultural resources study. Mitigation requiring tribal monitoring during construction and cultural sensitivity training for all

¹ Pending Amendment to Petition for Change for License 5300 filed with the State Water Resources Control Board Division of Water Rights by Wagner & Bonsignore Consulting Civil Engineers on October 6, 2014, would change the place of use to 212 acres.

² Pending Amendment to Petition for Change for License 6874 (Application 16960) filed with the State Water Resources Control Board Division of Water Rights by Wagner & Bonsignore Consulting Civil Engineers on October 6, 2014, would change the place of use to 126 acres.

project personnel has been incorporated into the proposed project in **Section XVIII (Tribal Cultural Resources)**. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and 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 #P23-00130-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 <https://pbes.cloud/index.php/s/wCMQyPRHrxWqNRj>.

- HDVine LLC, September 12, 2024, P23-00130 Track 1 ECPA (REV1) Maxville-Site Plan (**Exhibit A-1**)
- HDVine LLC, September 6, 2024, P23-00130 Track 1 ECPA Narrative for Maxville Winery REV 1, Project Site: APN 025-020-023, 027, 028, 4000, 4105, 4128, 4300, 4321 Chiles Pope Valley Rd., St. Helena, CA 94574 (**Exhibit A-2**)
- HDVine LLC, August 19, 2025, P23-00130 Track 1 ECPA Narrative Addendum for Maxville Winery REV 1, Project Site: APN 025-020-023, 027, 028, 4000, 4105, 4128, 4300, 4321 Chiles Pope Valley Rd., St. Helena, CA 94574 (**Exhibit A-2.a**)
- Northwest Biosurvey, September 10, 2017, Updated May 6, 2022, Updated December 30, 2022, Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Maxville Winery & Vineyard Project, APS 025-020-002, 008, & 023, Napa County, CA (**Exhibit B-1**)
- Northwest Biosurvey, August 26, 2024, Response to Napa County Comments AND Addendum to "Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Maxville Winery & Vineyard Project, APS 025-020-002, 008, & 023", Napa County, CA (**Exhibit B-2**)
- Northwest Biosurvey, September 2, 2024, Review of Proposed Woodland Conservation Plan for the Maxville Lake Vineyard Project (**Exhibit B-3**)
- HDVine LLC, March 13, 2025, Maxville – Canopy Preservation Area REV2, APN 025-020-023, 027, 028, Chiles Pope Valley Road, St. Helena, CA (**Exhibit B-4**)
- Land Trust of Napa County, April 4, 2024 (**Exhibit B-5**)
- Tom Origer & Associates, May 8, 2019, Cultural Resources Study for the Maxville Lake Potential Vineyard Project, St. Helena, Napa County, California (contents confidential)
- PJC & Associates, Inc, March 7, 2024, Stability Report, Proposed Vineyard Development, Maxville Winery, 4105 Chiles Pope Valley Road, St Helena, California (**Exhibit C**)
- HDVine LLC, April 12, 2023, Soil Loss Analysis-Maxville Winery, Includes: USLE Calculations (**Exhibit D-1**)
- HDVine LLC, September 3, 2024, USLE Flowline Map APNs 025-020-023, 027, 028, 4105 Chiles Pope Valley Road, St Helena, CA 94574 (**Exhibit D-2**)
- O'Connor Environmental, Inc. June 12, 2024, Baseflow Water Availability For Diversion at Maxville Winery, (APNs 025-020-025, 025-020-028) (**Exhibit E-1**)
- HDVine LLC, August 29, 2024, Maxville-Water Rights – POU, APNs 025-020-023, 027, 028, 4105 Chiles Pope Valley Road, St Helena, CA 94574 (**Exhibit E-2**)
- State of California, State Water Resources Control Board, Division of Water Rights, May 5, 2000, Amended License for Diversion and Use of Water, Application 13711, Permit 8526, License 5300 (**Exhibit E-3**)
- Wagner & Bonsignore, October 6, 2014, Koko Nor Corporation – Amendment to Petition for Change – Napa County, License 5300 (Application 13711) (**Exhibit E-4**)

- State of California, State Water Resources Control Board, Division of Water Rights, May 5, 2000, Amended License for Diversion and Use of Water, Application 16960, Permit 10990, License 6874 (**Exhibit E-5**)
- Wagner & Bonsignore, October 6, 2014, Koko Nor Corporation – Amendment to Petition for Change – Napa County, License 6874 (Application 16960) (**Exhibit E-6**)
- State of California, State Water Resources Control Board, Division of Water Rights, August 11, 2014, Registration L032173, Certificate L241 (**Exhibit E-7**)
- State of California, State Water Resources Control Board, Division of Water Rights, August 11, 2014, Registration L023174, Certificate L242 (**Exhibit E-8**)
- HDVine LLC, September 3, 2024, 8G: Hydrology Report-Maxville Winery (REV 1) (**Exhibit F-1**)
- HDVine LLC, September 3, 2024, p23-00130 Track-Maxville Vineyard Hydrology Map (Land Cover)-REV 1 (**Exhibit F-2**)
- Project Revision Statement (**Exhibit G**)
- Application Submittal Materials and photos (**Exhibit H**)
- Site inspection conducted by Napa County Planning, Building and Environmental Services staff July 5, 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 G** is the signed Project Revision Statement.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Dana Morrison
Printed Name

Napa County Planning, Building and Environmental Services

ENVIRONMENTAL CHECKLIST FORM

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
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-c. The project site is located adjacent to a designated scenic corridor as it is located in proximity to Chiles Pope Valley Road, which is a Napa County designated viewshed road (Napa County GIS, Viewshed roads and Scenic Corridors Layers; Baseline Data Report, Chapter 12, 2005). However, due to topography and existing vegetation most of the project site is not visible from Chiles Pope Valley Road. Additionally, the proposed use is vineyard, which is a common visual land use aesthetic in the valley floor and along Chiles Pope Valley Road. The addition of 42 net acres of vineyard would be consistent within the surrounding environment which consists primarily of agricultural, residential uses and open space. The project site is not located within the vicinity of an officially designated state scenic highway; State Route 128, which is listed as eligible, is the closest and it is approximately 5.1 miles to the southeast (Napa County GIS Road Layer; California State Scenic Highway System Map). The project site is in the Agricultural Watershed (AW) zoning district which is dominated by vineyards and typifies the visual character of the area (Napa County GIS, Zoning Districts Layer).

The project site is not located on a prominent hillside or a major or minor ridgeline (Napa County GIS, Ridgelines Layer). The site is not located near a scenic vista, and there are no historic buildings on site. There are also no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. The proposed project includes the removal of approximately 306 trees within the proposed development area; however, all trees along Chiles Pope Valley Road frontage would remain (**Exhibit A-1**). Further, the project site currently contains an approximately 520-acre conservation easement, known as a Forever Wild Zone, which protects much of the canopy cover on the project site. The Forever Wild Zone is located outside of the proposed development area and would not be impacted by construction of the proposed project (see also **Section IV [Biological Resources]**).

Therefore, for the reasons described above, the proposed project would have less-than-significant impacts on a scenic vista, scenic highway, historic buildings, scenic trees, rock outcrops, and the visual character and quality of the site and surroundings.

d. Proposed agricultural operations on the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring in 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 between 12 a.m. and 7 a.m.) approximately 45 days per year. Other nighttime activities would include sulphur and pesticide/herbicide application (typically between 4 a.m. and 7 a.m.) approximately 15 days per year each. 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 includes areas mapped as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land by the California Department of Conservation (California Important Farmland Finder³). The proposed project would result in an increase in productive agricultural farmland on the project site. 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 is designated Agricultural Resource (AR) and Agriculture, Watershed, and Open Space (AWOS) by the General Plan and is zoned Agricultural Watershed (Napa County GIS Zoning Layer). Therefore, the establishment of vineyard totaling approximately 56.2 gross acres with approximately 42 net planted acres is consistent with project site's land use and zoning designations. The project site does not have a Williamson Act contract associated with it (Napa County GIS, Williamson Act Parcels). The proposed project would not convert any land within the project site to non-agricultural use; therefore, implementation of the proposed project would not conflict with the project site's land use designation or a Williamson Act contract. No impact would occur.
- 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 proposed development area does not contain forest land or coniferous forest (Napa County GIS Zoning Layer). The project site is zoned as Agricultural Watershed 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 would not construct new roads to the project site and construction of the proposed vineyard would not result in the conversion of existing farmland or forestland to non-agricultural or non-forestland uses. As such, the proposed project would have no impact on agricultural or forest resources of Napa County.

³ <https://maps.conservation.ca.gov/DLRP/CIFF/>

	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?	☐	☐	☒	☐

Discussion⁴

The Bay Area Air Quality Management District (BAAQMD) has published CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017; referred to as CEQA Guidelines) to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans.⁵ 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 greenhouse gas (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 2017 CEQA Guidelines. The potential air quality impacts associated with construction and operation of the proposed project were evaluated consistent with BAAQMD's 2022 CEQA Guidelines.

The project site is generally located along the eastern side of Napa Valley, within the Napa County climatological subregion of the SFBAAB, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities.

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 (PM₁₀), 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 for the federal 8-hour ozone standard, state 1-hour and 8-hour ozone standards, state annual and 24-hour PM₁₀ 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 PM₁₀ and PM_{2.5}.

- a. 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).⁶ 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 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

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

⁵ 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>.

⁶ 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.

toxic air contaminants (TACs); reduce emissions of methane and other “super-GHGs”⁷ that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.⁸

The BAAQMD’s current guidance requires consideration of the following questions in determining whether a project is consistent with an air quality plan. A project would be considered to be consistent with the Clean Air Plan if:

- 1) the project supports the primary goals of the Clean Air Plan
- 2) the project includes all applicable control measures from the Clean Air Plan
- 3) the project does not disrupt or hinder implementation of any control measures in the Clean Air Plan.

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.

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 vegetation⁹. In the long term, potential air quality impacts may 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 traveling to and from the site, truck trips hauling harvested grapes, and use of equipment necessary for ongoing vineyard maintenance. Refer to **Section XVII (Transportation)** for the anticipated number of construction- and operation-related trips.

As indicated in the discussion in Question b below, the proposed project would result in less than significant impacts from construction with the implementation of **Mitigation Measure AQ-1** and from 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 with the implementation of **Mitigation Measure AQ-1**.

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 proposed 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.

In summary, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan. The impact would be less than significant with mitigation.

- b. 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 4**.

Table 4 – 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	Best management practices (BMPs)		None

^a Includes PM emissions from exhaust only.

Source: 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

⁷ “Super-GHGs” are climate pollutants that have a powerful ability to contribute to global warming, such as methane, black carbon, and fluorinated gases.

⁸ 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.

⁹ Assuming burning to be conservative.

regard to fugitive dust emissions of PM₁₀ and PM_{2.5} if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air pollutant emissions from the proposed project, a review of the analysis of emissions associated with vineyard development/construction and operations performed for the CEQA analysis of three recent vineyard projects in Napa County was completed: Stagecoach North Vineyards¹⁰ for an approximately 91-acre vineyard development, KJS and Sorrento Vineyard¹¹ for an approximately 98-acre vineyard development, and Le Colline Vineyards¹² for an approximately 28-acre vineyard development¹³.

All three vineyard projects involved similar activities associated with land clearing, construction, and installation of vineyards as the proposed project. Construction emissions estimated for each of these projects were divided by the development area for each to derive an estimate of the pounds per acre per day for each criteria air pollutant. Construction emissions included emissions from the use of off-road equipment and construction vehicles.

Table 5 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in construction emissions between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as construction trips, construction equipment and duration of use/operation. Variations in operational emissions between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as operational year and number of vehicle trips generated, level of off-road equipment use in operation, and the use of electric equipment and vehicles.

The proposed project would involve clearing existing vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 56.2 gross acres of vineyard. During construction, vineyard installation is anticipated to generate up to six truck trips per day to transport construction equipment and materials and for anticipated work crews of up to 24 employees. Anticipated construction equipment would be limited to tracklaying and rubber-tired vehicles and could include typical vineyard construction equipment such as bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Daily construction emissions associated with the proposed project's 56.2 gross acre vineyard development (approximately 42 net planted acres) were estimated using the average pounds per day per acre estimated for the three vineyard projects described above and are shown in **Table 5**. As shown in Table 5, short-term construction NO_x emissions associated with the proposed project would exceed the BAAQMD daily construction threshold. All other construction related emissions would be well below the thresholds.

¹⁰ #P18-00446-ECPA, November 2022, SCH #2019100250

¹¹ #P17-0432-ECPA, March 2023, SCH #2018092042

¹² #P14-00410-ECPA, December 2022, SCH #2016042030

¹³ These EIRs are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services permanent files.

Table 5 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Construction Emissions			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North vineyard ¹ (pounds per acre per day)	0.08	0.75	0.03	0.03
KJS and Sorrento vineyard ² (pounds per acre per day)	0.5	0.42	0.02	0.02
Le Colline vineyard ³ (pounds per acre per day)	0.24	2.33	0.10	0.09
Average (pounds per acre per day)	0.12	1.17	0.05	0.05
Project Construction Emissions based on Average (pounds per day)	6.75	65.5	2.76	2.54
Construction threshold	54	54	82	54
Significant?	No	Yes	No	No
Emissions and Thresholds	Operational Emissions ^{4, 5}			
Stagecoach North 91-acre vineyard operation ¹ (pounds per acre per day)	0.01	0.08	0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ² (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ³ (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Average (pounds per acre per day)	<0.01	0.03	<0.01	<0.01
Project Operational Emissions based on Average (pounds per day)	0.17	1.65	0.17	<0.01
Operational threshold (pounds per day)	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions ⁴ (tons per year)			
Stagecoach North 91-acre vineyard operation ¹ (tons per year)	<0.01	0.01	<0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ² (tons per year)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ³ (tons per year)	<0.01	0.01	<0.01	<0.01
Average (tons per year)	<0.01	<0.01	<0.01	<0.01
Project Operational Emissions based on Average (tons per year)	0.03	0.29	0.03	0.02
Operational threshold (tons per year)	10	10	15	10
Significant?	No	No	No	No

¹ As identified in Stagecoach North EIR

² As identified in KJS and Sorrento EIR

³ As identified in Le Colline Vineyard 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: Stagecoach North Vineyard EIR 2022; KJS and Sorrento Vineyard EIR 2023; Le Colline Vineyard Initial EIR 2023; BAAQMD CEQA Guidelines April 2023.

NO_x emissions from the proposed project (66 pounds per day) would exceed the BAAQMD's 54 pounds per day construction threshold. Therefore, construction activities would result in a **potentially significant** impact related to air quality. To reduce NO_x emissions from construction equipment to a less than significant level, **Mitigation Measure AQ-1** would be implemented.

Mitigation Measure AQ-1: The owner/permittee shall ensure that all off-road diesel-powered construction equipment greater than 50 horsepower used to develop or maintain the vineyard project meets EPA Tier 4 Final emission standards.

Using all Tier 4 Final construction equipment would reduce NO_x emissions by at least 50 percent according to CalEEMod construction equipment factors and a California Polytechnic State University construction equipment research paper (Maag 2021)¹⁴. A 50 percent reduction in project related construction NO_x emissions would generate approximately 33 pounds per day, which is below the BAAQMD threshold of 54 pounds per day, resulting in a less-than-significant impact.

Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval below, which include standard air quality and construction BMPs consistent with BAAQMD BMPs identified in Table 5-2 of the BAAQMD CEQA Guidelines and would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project.

¹⁴ Maag, Sheldon. *Alternative Options to Diesel Fuel in Construction Equipment*. June 2021. Available online at:

<https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1540&context=cmisp>

Air Quality – Conditions of Approval:

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- 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 should be provided for construction workers at all access points.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- 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 FAQ¹⁵ or the PERP website¹⁶.

Once completed, primary project operations would include activities such as vineyard pruning, weed and pest control, and harvest. Peak operations are anticipated to generate up to four round trips per day for anticipated work crews of up to 20 employees. A tractor and trailer would transport grapes to the onsite winery during harvest. Anticipated equipment for vineyard operations would be limited to track-laying vehicles, rubber-tired vehicles, and ATVs. Vineyard operations would be similar to the other three vineyard projects discussed above whose operational emissions were found to be below thresholds. As shown in Table 5, operational emissions associated with the proposed project would also be well below both the daily and annual operational thresholds.

Project-level thresholds used in the analysis above represent emission levels above which a project's individual emissions would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. The thresholds would be an evaluation of the incremental contribution of a project to a significant cumulative impact. As the proposed project's emissions would be below thresholds for construction with the implementation of Mitigation Measure AQ-1 and operation, the project would not 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. This impact would be less than significant with mitigation.

- 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.

There are no schools within 0.25 mile of the project site. The closest schools, Pacific Union College Elementary School, Pacific Union College, and the St. Helena Montessori School, are located approximately 5.5 and 5.8 miles to the northwest, and 6.6 miles to the southwest of the project site, respectively (Napa County GIS, Schools Layer). The nearest off-site residences to the project site are located approximately 216 feet to the south, 270 feet to the north, and 982 feet west.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, TACs and odors would be created through the use of construction, grading, and farm equipment (e.g., tractors, trucks, bulldozers, and an excavator). These sources would occur approximately 5.5 miles from the closest school and approximately 216 feet from the nearest rural residence. Because the construction sources would temporarily occur in two phases with construction occurring for up to six months during the year, and operational sources

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

¹⁶ <http://www.arb.ca.gov/portable/portable.htm>

are seasonal in nature, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors. Therefore, these 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?	☐	☐	☒	☐
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 used in this analysis and are incorporated herein by reference and available in the project file for review:

- Northwest Biosurvey, September 10, 2017, Updated May 6, 2022, Updated December 30, 2022, Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Maxville Winery & Vineyard Project, APS 025-020-002, 008, & 023, Napa County, CA (**Exhibit B-1**)
- Northwest Biosurvey, August 26, 2024, Response to Napa County Comments AND Addendum to “Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Maxville Winery & Vineyard Project, APS 025-020-002, 008, & 023”, Napa County, CA (**Exhibit B-2**)
- Northwest Biosurvey, September 2, 2024, Review of Proposed Woodland Conservation Plan for the Maxville Lake Vineyard Project (**Exhibit B-3**)
- HDVine LLC, March 13, 2025, Maxville - Canopy Preservation Area REV2, APN 025-020-023, 027, 028, Chiles Pope Valley Road, St. Helena, CA (**Exhibit B-4**)
- Land Trust of Napa County, April 4, 2024 (**Exhibit B-5**)

Northwest Biosurvey conducted an assessment of biological resources present or potentially present in a study area that included the proposed development area¹⁷. Biological resource surveys were conducted on May 26¹⁸, June 15, August 29, and September 3, 2017, and April 12, 2022. Since surveys were conducted the site has continued to be managed as a mix of grazing land, existing vineyard, residential, a commercial winery and open space. The surveys focused on the proposed development area and immediate surrounding habitat located within the project site and documented: the presence or potential for special-status plant and animal species and their habitats, potential substantial

¹⁷ The total project site acreage is 1,025 acres; of this a 59-acre study area encompassing the proposed development area was assessed for present or potentially present biological resources.

¹⁸ A late and heavy rainy season in 2017 delayed the blooming season of most species and required initiation of early surveys later in the spring.

adverse effects on sensitive habitats or communities, potential impacts to federal or state protected wetlands and waters of the U.S., and interference with native wildlife species, wildlife corridors, or native wildlife nursery sites.

Prior to conducting the biological surveys, biological information for the project site was obtained from the following sources: the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (CDFW, 2022) and California Native Plant Society (CNPS) Electronic Inventory (CNPS, 2022). The CNDDDB and CNPS database searches included the St. Helena, Aetna Springs, Calistoga, Chiles Valley, Detert Reservoir, Kenwood, Rutherford, Walter Springs and Yountville USGS 7.5-minute quadrangles.

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. Vegetation communities were identified based on the nomenclature of *A Manual of California Vegetation* (Sawyer et al., 2009) as modified by CNPS. Plant taxonomy and nomenclature is from the *Jepson Manual, Higher Plants of California*, 2012. Other texts, such as Munz's *A California Flora and Supplement*, 1973, and Mason's *Flora of the Marshes of California*, 1957, were used as supplemental texts.

The vegetation types in the project site include Oregon white oak woodland, coastal live oak woodland, blue oak woodland, mixed oak forest, Douglas fir forest, ghost pine forest, red willow thicket, interior live oak shrubland, leather oak chaparral, Baltic rush marsh, hardstem bulrush marsh, wild oat grassland, walnut orchard, vineyard, and ruderal (Northwest Biosurvey, December 2022 – **Exhibit B-1**). The vegetation types and their acreages in the project site and proposed development area are shown in **Table 6**.

Table 6 – Vegetation Types in the Project Site and Proposed Development Area

Vegetation Types	Approximate Pre-Project Acres in Project Site	Approximate Acres in Proposed Development Area ¹
Oregon White Oak Woodland	33.78	0.8
Coastal Live Oak Woodland	111.27	2.8
Blue Oak Woodland	216.12	6.9
Mixed Oak Forest	121.43	0.1
Douglas Fir Forest	25.42	0
Ghost Pine Forest	33.04	0
Red Willow Thicket	2.20	0
Interior Live Oak Shrubland	10.14	0
Leather Oak Chaparral	21.95	0
Baltic Rush Marsh	6.98	0
Hardstem Bulrush Marsh	3.01	0
Wild Oat Grassland	301.65	43.5
Walnut Orchard	0.15	0.15
Vineyard	100.59	0
Ruderal (Includes Roads and Structures)	30.55	1.9
Open Water (Pond, Lake)	13.38	0
Total	1,031.66	56.2

¹ Table 1 in Exhibit B-1 lists acreages for Plant Communities and Other Cover Types Present from an early planning design that has since been revised, resulting in an overall reduction in the proposed development area acreage, see Exhibit A-2.a for updated habitat specific impacts..

Source: Northwest Biosurvey, December 2022 – Exhibit B-1; Data compiled by Napa County in 2025

- a. **Special-Status Plants:** Based upon a review of the biological resource databases listed in **Exhibit B-1**, 41 special-status plant species have been documented in the vicinity of the project site. Of those, 37 species have a moderate to high chance to occur in the project site, including: Napa false indigo (*Amorpha californica* var. *napensis*), Brewer's milk-vetch (*Astragalus breweri*), Clara Hunt's milk-vetch (*Astragalus claranus*), Cleveland's milk-vetch (*Astragalus clevelandii*), narrow-anthered brodiaea (*Brodiaea leptandra*), serpentine reed grass (*Calamagrostis ophitidis*), Mt. St. Helena morning glory (*Calystegia collina* ssp. *oxyphylla*), Rincon ridge ceanothus (*Ceanothus confusus*), Calistoga ceanothus (*Ceanothus divergens*), holly-leaf ceanothus (*Ceanothus purpureus*), Sonoma ceanothus (*Ceanothus sonomensis*), Tracy's clarkia (*Clarkia gracilis* ssp. *tracyi*), serpentine collomia (*Collomia diversifolia*), serpentine bird's-beak (*Cordylanthus tenuis* ssp. *brunneus*), swamp larkspur (*Delphinium uliginosum*), Green's narrow-leaved daisy (*Erigeron greenei*), St. Helena fawn lily (*Erythronium helenae*), nodding harmonia (*Harmonia nutans*), serpentine sunflower (*Helianthus exilis*), two-carpellate western flax (*Hesperolinon bicarpellatum*), Sharsmith's western flax (*Hesperolinon sharsmithiae*), Colusa layia (*Layia septentrionalis*), Jepson's leptosiphon (*Leptosiphon jepsonii*), broad-leaved leptosiphon (*Leptosiphon latisectus*), Napa lomatium (*Lomatium repostum*), Cobb Mountain lupine (*Lupinus sericatus*), cotula navarretia (*Navarretia cotulifolia*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*), Lobb's aquatic buttercup (*Ranunculus lobbii*), Sanford's arrowhead (*Sagittaria sanfordii*), Cleveland's ragwort (*Senecio clevelandii* var. *clevelandii*), marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*), green jewel flower (*Streptanthus hesperidis*), marsh zigadenus (*Toxicoscordion fontanum*), Napa bluecurls (*Trichostema ruygii*), and dark-

moulted triteleia (*Triteleia lugens*). The biological surveys, which were timed to correspond to the period sufficient to observe and identify those special-status plants determined to have the potential to occur in the project site, identified two special-status plant species (holly-leaf ceanothus and Jepson's leptosiphon) and one plant with sensitive regulatory status (Mt. St. Helena morning glory) in the survey area (Northwest Biosurvey, December 2022 – **Exhibit B-1**, Tables 2 and 3).

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-3.¹⁹ Additionally, pursuant to Napa County General Plan Policy CON-13,²⁰ the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

The project as proposed would not remove special-status plants and/or populations. The populations identified in the biological resources assessment (Northwest Biosurvey, December 2022 – **Exhibit B-1**) would not be located in the proposed development area and would be included within the boundaries of a proposed canopy preservation area (**Exhibit B-4**; see Question e below). This is consistent with the following Napa County General Plan Conservation Element goals, policies, and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status species habitat can be avoided while allowing for the development of up to approximately 56.2 gross acres of agriculture in the project site; Policy CON-17 because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affect sensitive, rare, threatened, or endangered plants.

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 24c²¹, specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible replacement of oak woodland at a 2:1 ratio is required. The proposed development area includes 6.9 acres of blue oak woodland (3% of the existing habitat type, avoiding 97%), 2.8 acres of coastal live oak woodland (2 % of the existing habitat type, avoiding 98%), 0.1 acres of mixed oak forest (<1% of the existing habitat type, avoiding 99%), 0.8 acres of Oregon White Oak woodland (2% of the existing habitat type, avoiding 98%), and 43.5 acres of wild oat grassland (14% of the existing habitat type, avoiding 86%). Canopy impacts and mitigation are discussed in Question e below.

Special-Status Animals: Based upon a review of the biological resource databases listed in **Exhibit B-1**, 27 special-status animal species have the potential to occur in the vicinity of the project site. Eighteen of these species have a moderate to high potential to occur in the project site, including: obscure bumble bee (*Bombus oliginosus*), steelhead-Central California Coast DPS (*Oncorhynchus mykiss irideus* pop. 8), California giant salamander (*Dicamptodon ensatus*), foothill yellow-legged frog (*Rana boylei*), California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), white-tailed kite (*Elanus leucurus*), purple martin (*Progne subis*), yellow warbler (*Dendroica petechia brewsteri*), northern spotted owl (*Strix caurina occidentalis*), tri-colored blackbird (*Agelaius tricolor*), Lewis' woodpecker (*Melanerpes lewis*), Lawrence's goldfinch (*Carduelis lawrencei*), loggerhead shrike (*Lanius ludovicianus*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), Yuma myotis (*Myotis yumanensis*), and pallid bat (*Antrozous pallidus*). The biological surveys identified habitat for these special-status animal species within the proposed development area; no special-status animal species were observed during the surveys. These species are discussed in further detail below (Northwest Biosurvey, December 2022 – **Exhibit B-1**).

Obscure bumble bee is native to the west coast; in the Coast Range it inhabits meadows. It is similar in appearance and co-exists with the common *Bombus vosnesenskii* and may be mistaken for this bee. *B. oliginosus* is threatened by climate change and loss of habitat and does not thrive in developed urban or agricultural areas. This species of bee has been identified in the CNDDDB in the vicinity of Angwin and Pope Valley. It has a potential to occur in mesic grassland habitat adjacent to Baltic rush marsh on the east shore of Maxwell Lake, and in similar habitat within this mapped habitat along drainages on the project site.

¹⁹ 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.

²⁰ Policy Con-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to: Provide protection for habitat supporting special-status species through buffering or other means.

²¹ Policy CON 24(c): Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

Steelhead require cool perennial streams. The CNDDDB lists this species as occurring in a perennial stream northwest of the city of St. Helena. Steelhead have historically been found in the upper reaches of Maxwell Creek. Young steelhead may persist in shaded perennial segments of Maxwell Creek within the project site.

California giant salamanders are found in damp forests in cool, rocky streams, and occasionally in ponds and lakes. They prefer humid coastal forests, including Douglas fir, redwood, montane and valley-foothill riparian habitats. Cold flowing water is necessary for egg-laying and maturing. Larvae and adults in their aquatic state hide between rocks in streambeds; on land they may be found under litter or underground. Food includes snails, slugs, small rodents and mammals, fish, and other amphibians. The salamanders are mostly nocturnal. California giant salamanders have been found in a cool, spring-fed creek in the Las Posadas State Forest south of Angwin. The stream and forest habitats along the west shore of Maxwell Lake and along shaded perennial segments of Maxwell Creek have a potential to support these salamanders.

Foothill yellow-legged frogs are relatively common along the shaded banks of perennial headwater streams, and they are heavily dependent on the presence of perennial water and are seldom far from pools where they can seek shelter from predation. These frogs require either perennial or long-duration stream flows as successful breeding sites due to the lengthy period required for metamorphosis of larvae. Breeding begins between mid-March and May and lasts about two weeks. The larvae require three to four months to mature, making most ephemeral streams unsuitable as breeding sites. The Maxwell Creek stream channel has potential to provide habitat for this species.

California red-legged frogs are typically pond frogs or frogs of slow-moving streams with dense bank vegetation and three or more feet of depth. The frogs may be found outside of these habitats during wet weather, but nearby ponded water is necessary. This frog is threatened by vineyard and other development, and predators. The CNDDDB records an occurrence from 1979 in a roadside channel along Howell Mountain Road. Maxwell Lake and the various livestock ponds on the project site could provide suitable habitat for red-legged frogs.

Western pond turtles prefer slow or ponded water but will range widely through less suitable habitat in search of these sites. There are several ponds within the project site that have adjacent cover vegetation that would provide habitat for pond turtles. Potential habitat is enhanced by the large pond's proximity to a perennial stream (Maxwell Creek).

White-tailed kites are usually found near agricultural areas. The kite prefers open terrain near woodlands and water. These raptors hunt over open country and prefer large, deciduous trees surrounded by expanses of grassland, meadows, farmland and/or wetlands for nesting and roosting sites. The grasslands, open woodlands and vineyards throughout the project site may support hunting and nesting habitat for this species.

Purple martins prefer open, old growth, multilayered woodlands and conifer forests with nearby water or riparian areas. It is a California Species of Special Concern while nesting. These birds may nest as pairs in old woodpecker cavities or in colonies in large hollow snags. There are CNDDDB accounts of purple martins nesting in burned Douglas fir snags east of Howell Mountain and Conn Valley Roads. Moderate habitat for this species is found in the cooler woodlands on the project site, much of which is contained within the existing conservation easement on the project site.

Yellow warblers require riparian woodland with a dense shrubby understory for nesting and cover. They arrive in these areas in April and are typically gone by October. Fledging is usually completed by August. Nests are constructed in shrubs and small trees in the lower canopy of the woodland, and they forage for insects in the upper canopy. There is suitable habitat in the willow habitats around the ponds on the project site.

Northern spotted owls are usually found in dense, multi-layered old-growth conifer, redwood, and fir forests, although they may also be found in otherwise-suitable newer-growth forests in California. They are intolerant of high temperatures and inhabit cool, moist, well shaded habitats. In summer, the owls roost in north-facing slopes in dense overhead canopy, while in winter they may roost in oak habitats. They nest in tree or snag cavities, or in broken tops of large trees. Mature multi-layered forests are required for breeding. The territories for this owl are very large. This species is threatened by habitat disturbance and destruction, predation by other birds, and low reproductive success. These habitat requirements may be met within the dense conifer forests on the north facing slopes on the project site.

Tri-colored blackbirds are colony nesters in fresh emergent wetland habitat (tule or cattail marsh) but may also occur in dense blackberry or willow shrub communities adjacent to water. Cover is required for nesting. Proximity to insects is preferred, although food includes seeds and grain. Breeding occurs April through June. The species is usually readily observed when present. The tule and rush communities near the ponds on the project site provide suitable habitat for the species.

Lewis' woodpeckers' nest in excavated cavities, often in dead trees and dead limbs of live trees in open woodlands. Open woodlands or forests with open perches are required to provide good visibility for catching flying insects, and a shrubby understory is preferred. Food is mainly insects which they catch in the air or glean from the ground or trees, but includes nuts from orchards, fruits, and berries throughout the spring and summer; they shift their diet to cached acorns and emerging insects in the fall and winter. Breeding occurs between early May and July. The open woodlands within project site provide habitat for this species.

Lawrences' goldfinch prefer to nest in the dense foliage of oaks in open woodland. Their diet consists primarily of seeds but includes some insects. They frequently nest near other pairs during a breeding season that extends from late March through July, with birds migrating in August. The open oak woodlands within the project site provide habitat for this species.

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

Long-eared myotis, fringed myotis, Yuma myotis, and the pallid bat prefer conifer and/or riparian woodland habitats with sources of water over which to feed. These species may roost in rocky outcrops, trees, and buildings or other manmade structures. Many of the bats, most notably pallid, are extremely sensitive to human disturbance. Long-eared myotis, fringed myotis, and Yuma myotis do not have state or federal sensitive status at this time. Pallid bats, long-eared myotis, and Yuma myotis have been found in numerous locations and in varied habitats throughout the Napa, Pope, and Chiles Valleys. There is an account of pallid bats near Baldy Mountain and Hardin Creek, southeast of the project site. The Douglas fir forest and Oregon white oak woodland along Maxwell Lake and Maxwell Creek provide suitable habitat for these bats.

The special-status bat and bird species identified above have the potential to be impacted during tree removal. Foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle have the potential to be impacted during project construction activities in proximity to the streams and ponds within the project site. Further, 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 Wildlife 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. These are considered potentially significant impacts.

Obscure bumble bee has the potential occur near mesic grasslands adjacent to Baltic rush marsh communities on the project site; these areas have been avoided and the proposed development area is more than 20 feet from the Baltic rush communities and waterways, so no impact would occur.

Conservation staff reached out to CDFW to request early review of the proposed Biological Mitigation Measures, correspondence can be reviewed in **Exhibit I – Correspondence**. CDFW requested an amendment to Mitigation Measure BIO-2, which was incorporated here in, and also requested a Condition of Approval be added to require Lake and Stream Bed Alteration Permits and/or 1602 permits for any work performed within riparian zone for any watercourse on the subject parcels including any new stream crossings. This COA has been included later in this section of the Initial Study.

To reduce potentially direct and indirect significant impacts on special-status bat species to a less-than-significant level, **Mitigation Measure BIO-1** would be implemented.

Mitigation Measure BIO-1: The owner/permittee shall revise Erosion Control Plan #P23-00130-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status bat species:

- a. August 31 through October 15, and March 1 to April 15: Under the supervision of a qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying), bat habitat trees shall be removed or trimmed in a two-phased system conducted over two consecutive days. The first day (in the afternoon), limbs and branches will be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures will be avoided, and only branches or limbs without those features will be removed. On the second day, the entire tree will be removed. All felled trees shall remain on the ground for at least 24 hours prior to disposal to allow any present bats within the trees to escape.
- b. Bat habitat tree removal or trimming between October 16 and February 28/29 of the following year or between April 16 and August 30: A qualified biologist shall conduct pre-construction survey within 14 days of project initiation to

determine absence or presence of special-status bat species. A copy of the survey results shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present removal can proceed as prescribed. If bats are found to be present a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Planning Division and CDFW. The removal or exclusion plan shall be reviewed and authorized by the County Planning Division and implemented prior to commencement of the ECPA.

To reduce potentially direct and indirect significant impacts on special-status and protected bird species to a less-than-significant level, **Mitigation Measure BIO-2** would be implemented.

Mitigation Measure BIO-2: The owner/permittee shall revise Erosion Control Plan #P23-00130-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 (specifically 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 the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
- e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

To reduce potentially direct and indirect significant impacts on foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle to a less-than-significant level, **Mitigation Measure BIO-3** would be implemented.

Mitigation Measure BIO-3: The owner/permittee shall revise Erosion Control Plan #P23-00130-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle:

- a. A qualified biologist shall conduct a worker education program to construction personnel prior to commencement of earthmoving activities with information regarding the identification and ecology of foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle, 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 foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle, and the role of the on-site biologist.
- b. If water is present at the time of construction, a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, and western pond turtle) shall conduct two surveys along the intermittent stream at least 14 days prior to commencement of earthmoving activities. The surveys shall have remarkably different light angles (e.g., early morning and early afternoon), but can be conducted on the same day. Survey areas (streams) shall be systematically walked upstream, zig-zagging between the bank and the thalweg in wide areas, and bank-to-bank in narrow areas. All areas along the streams that could support frogs, salamanders, turtles, or fish shall 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, salamanders, turtles, or fish could be present. Surveyors shall use binoculars to reduce the likelihood of disturbing frogs and flashlights for searching darkened crevices and shaded areas. Slow-moving and/or

still waters shall be closely inspected for the presence of tadpoles, larvae, hatchlings, or fry. If water is not present, no pre-construction surveys are required.

- c. If no foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, or western pond turtle are present during the pre-construction survey, no additional measures are warranted.
- d. If foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, or western pond turtle are determined to be present, a qualified biologist shall conduct one daytime survey for pre-construction activities within 48 hours of commencement of earthmoving activities. If foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, or western pond turtle are or will likely be present at the time of commencement of earthmoving activities, protective measures shall be deployed. Such measures include: (1) installation of exclusion fencing, (2) presence of on-site biologist during ground disturbance activities, and (3) implementation of a worker education program. Exclusion fencing shall be installed along the inhabited stream(s) immediately adjacent to the proposed development area, extending 100 feet beyond the terminus of the proposed development area in each direction. The on-site biologist shall be present to perform a survey of the proposed development area in the morning prior to that day's commencement of earthmoving activities. If a foothill yellow-legged frog, California giant salamander, California red-legged frog, steelhead, or western pond turtle is present within the proposed development area, individual frogs, salamanders, turtles, or fish 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 and the County Conservation Division.

- b-c. Maxwell Creek, a blue-line stream which is tributary to Pope Creek thence Putah Creek, runs through the project site approximately 250-600 feet south of the proposed development area. The project site also contains a number of ephemeral tributaries to Maxwell Creek, 0.47 acre of wetlands, and 14.41 acres of ponds. Minimum 35-foot stream setbacks have been maintained from the ephemeral drainages and minimum 50-foot setbacks have been maintained from the wetlands and ponds in accordance with NCC 18.108.025 (**Exhibit A-1**). The proposed project has also been designed to reduce 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 drainages, wetlands or ponds. Riparian habitat occurs along Maxwell and Chiles Creeks. Given that the proposed project would implement a minimum 35-foot stream setback, riparian habitat would not be significantly altered due to the proposed project. Therefore, the proposed project would not result in a significant impact to riparian habitat, wetlands or other sensitive natural community. Impacts would be less than significant.

CDFW review the proposed project and, while the project has been specifically designed to avoid any work within require stream or ephemeral setbacks, they have specifically requested a Condition of Approval be added to require Lake and Stream Bed Alterations and/or 1602 permits for any new crossings or work within the riparian zone. As such, the following COA has been added to the project.

Lake and Streambed Alteration and/or 1602 permits - Condition of Approval

Any work occurring within the riparian zone of the on site ephemerals or stream, such as any new crossings, shall obtain necessary approvals from the California Department of Fish and Wildlife, such as a Lake and Streambed Alteration Permit or 1602 permit, as applicable.

The project site contains two sensitive biotic communities listed in the Napa County Baseline Data Report: Douglas fir forest and leather oak. The leather oak chaparral community contains populations of three plant communities with sensitive regulatory status: Mt. St. Helena morning glory, Jepson's leptosiphon, and holly-leaf ceanothus. Neither of these communities are located in the proposed development area and no impact would occur.

- d. Wildlife corridors are natural areas interspersed with developed areas that are important for animal movement, increasing genetic variation in plant and animal populations, the reduction of population fluctuations, and the retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also preserve watershed connectivity. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that corridors should be at least 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape.

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 project site is not within a movement area as defined by the CalWild database. At a localized scale the project site provides connectivity along riparian corridors primarily in the form of oak-dominated woodland (north, west, and south) and open grassland (east) capable of hosting a variety of wildlife species. The Maxwell Creek riparian corridor (Oregon white oak woodland) and the riparian corridor of its unnamed tributary which runs along the northern project site are important wildlife movement corridors within this region and connect to the conservation easement on the project site, known as the Forever Wild Zone, along the northern and southern portions of the project site, which currently protect 520 acres of the project site from development. Most of the project site would remain undeveloped, including the majority of the site's oak woodland, resulting in direct

connectivity with similar habitats within the project site and undeveloped lands to the north, west, and south. The proposed development area maintains substantial oak woodland to the south, west and north of the proposed vineyard blocks allowing for continued wildlife movement at the localized and regional scale following along the riparian corridors mentioned above. This would allow for continued wildlife movement. Given the relatively small size of the proposed development area (relative to the area of the greater corridor tract), the apparent lack of development impacts within the northern portions of this tract, and the retention of the oak woodland within the project site, the proposed project is not anticipated to result in any potentially significant impacts to wildlife movement or migration (Northwest Biosurvey, December 2022 – **Exhibit B-1**).

Though the proposed project would incrementally reduce a small amount of habitat in the project area, resulting in changes in avifauna and rodent utilization in the area, the proposed project would not lead to significant impacts to habitat fragmentation in the region, significant species exclusion, or a significant change in species composition in the region.

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.

No new wildlife exclusion fencing is proposed as part of the proposed project.

- e. The project site contains approximately 111.27 acres of coast live oak (2.8 acres of which occurs in the proposed development area), 216.12 acres of blue oak woodland (6.9 acres of which occurs in the proposed development area), 121.43 acres of mixed oak forest (0.1 acres of which occurs in the proposed development area), and 33.78 acres of Oregon White Oak woodland (0.8 acres of which occurs in the proposed development area). The proposed development area contains 306 trees with DBH greater than 6 inches that are proposed for removal.

Oak woodland is the most common land cover in the County occurring on approximately 167,000 acres (33% of the County's area). Approximately 733 acres of oak woodland or 0.5% of the total area of oak woodland in the County has been cleared for residential and agricultural purposes between 1993 and 2002 (Napa County Baseline Data Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 2005). While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

Because the project site is located in the Lake Hennessey Sensitive Domestic Water Supply Drainage – specifically the Chiles Creek-Main Fork drainage, pursuant to NCC Section 18.108.027(B) (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 70% of the tree canopy and a minimum of 40% of the grass/brush cover existing on the parcel in 1993 is required to be retained as part of the project. Based on information provided in the ECP Narrative Addendum (**Exhibit A-2.a**), approximately 158.6 acres in the southeastern portion of the project site is located in the Lake Hennessey – Chiles Creek – Main Fork drainage watershed. In 1993, this area contained 95.3 acres of shrub, brush and grassland cover. With the proposed project, 11.5 acre of shrub/brush/grass cover subject to Section 18.108.027(B) would be removed in the Lake Hennessey Drainage, which would result in the retention of approximately 88% of the brush/shrub cover in 1993 (11.5 acres /95.3 acres). In 1993, this area contained 54 acres of tree canopy cover. With the proposed project, 1.4 acres of tree canopy cover subject to Section 18.108.027(B) would be removed in the Lake Hennessey Drainage, which would result in the retention of approximately 97% of the tree canopy cover in 1993 in the Lake Hennessey Drainage.

The remaining project development area is located in the Maxwell Creek – Upper Reach which drains to the Sacramento River. NCC Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the Agricultural Watershed zoning district retain 70% of the vegetation canopy cover²² based on the on-site canopy present on June 16, 2016. Approximately 10.8 acres of oak woodland canopy would be removed with the proposed project (**Exhibit A-2.a**). The proposed project would retain approximately 530.4 acres (or 98%) of the canopy cover that existed in 2016 (**Exhibit A-2.a**), consistent with NCC Section 18.108.020(C) which requires a minimum of 70% preservation.

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

²² NCC Section 18.108.030 defines "vegetation canopy cover" as "the biotic communities classified as oak woodland, riparian oak woodland, or coniferous forest based on the current Manual of California Vegetation (MCV) and as described in the Napa County Baseline Data Report (2005 or as amended)."

Vegetation Canopy Cover) requires preserved vegetation canopy cover to be protected (or otherwise enforceable restricted) through a perpetual protective easement or deed restriction preserving and conserving the preserved vegetation canopy cover.

For the proposed project to comply with NCC Section 18.108.020(D) and preserve 3 acres of canopy cover (i.e., oak woodland) for every 1 acre impacted, a minimum of 32.4 acres of canopy cover must be preserved on the project site for the approximately 10.8 acres of oak canopy that would be removed in the proposed development area. Currently about 520 acres of the project site (including about 395 acres of canopy) are protected in a Forever Wild Zone as part of an existing conservation easement filed in 2001 (Record #2001-0046663) and amended in 2019 (Record #2019-0009087). The conservation easement was granted voluntarily by the owner at the time of filing and was not recorded as mitigation for any property clearing or grading activity, as discussed in **Exhibits A-1, B-4, and B-5**. Given that the conservation easement was granted voluntarily, the Forever Wild Zone could serve as mitigation for the removal of 10.8 acres of canopy cover. However, the Land Trust of Napa County recommended that the proposed project preserve the full 32.4 acres in an area outside of the existing conservation easement (**Exhibit B-5**). The ECP prepared for the proposed project identified an approximate 32.4-acre proposed preservation area on the project site, 11.2 acres of which is on slopes less than 30%, as shown in **Exhibit B-4**. Although 21.2 acres of the proposed preservation area is located on slopes greater than 30%, the identified preservation area provides the advantages of preserving the remaining sensitive plant population areas that are not already within the Forever Wild Zone, providing a large and contiguous area of mixed plant communities to provide meaningful habitat value, and it is contiguous with surrounding undeveloped wildlands to the southwest and southeast. To reduce impacts on canopy cover to a less-than-significant level and comply with NCC Section 18.108.020(D), **Mitigation Measure BIO-4** would be implemented.

Mitigation Measure BIO-4: The owner/permittee, prior to approval, shall implement the following measure to minimize canopy impacts:

- a. A Preservation Area, totaling a minimum of 32.4 acres as shown in **Exhibit B-4** shall be designated as such in a deed restriction, mitigation easement or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The owner/permittee shall record the deed restriction or mitigation easement prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of oak woodland within the project property; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 50%). The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.

The land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should be otherwise restricted by the existing goals and policies of Napa County.

The owner/permittee shall provide an endowment to the accredited land trust that is sufficient to ensure that the mitigation easement is monitored, enforced, and defended in perpetuity. The amount of the endowment shall be calculated using the Center for Natural Land Management's Property Analysis Record software, or an equivalent methodology if preferred by the land trust and accepted by the Land Trust Alliance, which provides the systematic and objective determination of the amount of the endowment in light of the conservation values to be protected by the easement. The record showing how the amount of the endowment was calculated shall be provided to County Counsel as part of its review of the mitigation easement. Any county staff time spent assessing and monitoring said provision shall be charged to the permittee, at the rate in effect at the time assessment and monitoring occurs, pursuant to County Fee Policy Part 80.

- b. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the proposed development area (typically within approximately 50-feet of the proposed development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the proposed development area.
- d. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P23-00130-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning

director. A replacement plan shall be prepared for county review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

With the implementation of **Mitigation Measures BIO-1 through BIO-4**, the proposed project would have less-than-significant impacts on special-status plants and wildlife as well as wildlife movement and result in conformance with policies protecting biological resources in the Napa County General Plan and Conservation Regulations. Further, as discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, under existing conditions, the annual soil loss is anticipated to average 187.2 tons per acre per year across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, soil loss is anticipated to total 105.7 tons per acre per year, or a reduction of approximately 56% as compared to existing conditions. Therefore, the findings can be made that highest biological and water quality protections have been incorporated into the project, as proposed, with incorporation of **Mitigation Measures BIO-1 through BIO-4**, consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108, resulting in less-than-significant impacts.

- 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 Public Resources Code 21080.3.1 (Assembly Bill 52 - Gatto).

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

- Tom Origer & Associates, May 8, 2019, Cultural Resources Study for the Maxville Lake Potential Vineyard Project, St. Helena, Napa County, California (contents confidential).

Tom Origer & Associates conducted a cultural resource reconnaissance within 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 Lands 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 all accessible parts of the proposed development area²³ to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

- a-b. The cultural resource reconnaissance (Tom Origer & Associates, 2019) identified several archaeological resources (including five isolated obsidian specimens, a site with bedrock mortars, a midden site, and a historic-era site) and one built environment resource (a fence ditch) in the survey area. The areas of the proposed vineyard blocks evaluated in the cultural resource reconnaissance were from an early planning design and have since been revised and reduced with the proposed project to meet recommendations to fully avoid the resources. Further, through consultation with Middletown Rancheria, **Mitigation Measure CUL-1** and the Cultural Resources Conditions of Approval below were developed and will be implemented to mitigate and condition the project to ensure there are no significant impacts to cultural resources.

²³ The survey area included approximately 85 acres and approximately 3 miles of existing and proposed access roads.

Mitigation Measure CUL-1: The owner/permittee shall comply with the Tribal Monitoring Agreement which requires tribal monitors on site during project development and ground disturbance activities and additionally requires cultural sensitivity training for all project personnel.

- Prior to the commencement of vegetation removal and earth-moving activities pursuant to #P23-00130-ECPA, the owner/permittee shall provide documentation to Napa County demonstrating that they have engaged with the Middletown Rancheria Tribe to provide cultural monitors during project construction as necessary, and that cultural sensitivity training has been provided to site workers.
- Should the owner/permittee be unsuccessful in engaging with the Middletown Rancheria Tribe, 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.

- 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 six months in two phases. 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 consumed more than 13 billion gallons of gasoline and more than 3 billion gallons of diesel each year (CEC 2024). 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 Revised Draft Climate Action Plan, July 2018).

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 would 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?	☐	☐	☐	☒

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

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.
- i) The project site is not located on an active fault or within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The nearest faults are located approximately 0.79 mile west and 3.8 miles east of the project site (Napa County GIS faults and earthquakes layer). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) Although the project site is located in an area that may be subject to moderate 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, the project would not contribute to an increased risk of loss, injury or death involving seismic ground shaking. 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 General Plan-Safety Element, 2023). 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) There are landslide deposits mapped on the project site and in the immediate vicinity (Napa County GIS, Faults Layer). A Stability Report was prepared by PJC & Associates (**Exhibit C**) to evaluate potential effects of slope stability as a result of construction activities. Notable active landslide features were identified within or near the proposed vineyard Blocks D, G, H, I, and J, and previously proposed vineyard Blocks K and L. The evaluation recommended that proposed blocks be set back at least 25 feet from the active landslide features. In response to the findings and the geologist's recommendations, vineyard blocks were selectively removed from the ECP and the recommended 25-foot setbacks from the landslide features identified in the report were incorporated into the ECP. Therefore, given the agricultural nature of the proposed project and the proposed erosion control measures, the proposed project would not directly or indirectly cause potential substantial adverse effects involving landslide potential; a less-than-significant impact would occur (see Question c below for additional discussion regarding slope stability and landslides).
- b. Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Bressa-Dribble complex, 15 to 30 percent slopes; Bressa -Dribble complex, 30 to 50 percent slopes; and Haire Loam, 2 to 9 percent slopes. Installation and implementation of the proposed 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 one that the project site is 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) to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through cover crops with a minimum vegetative cover density of 80% for all proposed vineyard blocks. 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 HDVine (**Exhibits D-1 and D-2**), the proposed conversion of approximately 56.2 gross acres of vegetation to vineyard is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions. Under existing conditions, the annual soil loss is anticipated to total 187.2 tons per acre across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to total 105.7 tons per acre, or a reduction of approximately 56% as compared to existing conditions²⁴.

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 fiber rolls, straw wattles, silt fences, straw mulching, straw bale dikes, and other practices as needed.

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

²⁴ See Table 1 in Exhibit E; totals include the following vineyard block/USLE ID numbers: A/1, B/2, B/3, C1/5a, C1/5b, C1/4, C1/6, C2/6, C2/7, C3/8, D1/9a, D1/9b, D1/10, D1/11, D2/12, D2/13, E/15, E/16, F/17, G/18, G/19, G/20, H/21, H/22, I/23, I/24, I/25, J/26

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval:

The following conditions shall be incorporated by reference into Erosion Control Plan #P23-00130-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- **Permanent Erosion and Runoff Control Measures:** Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including but not limited to permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than 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 (#P23-000130-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 a permanent cover crop to achieve a minimum vegetative cover density of 80% for all proposed vineyard blocks. The cover crop may be strip sprayed, with a strip no wider than 1 foot (12 inches) wide at the base of vines, with post-emergent herbicides; no pre-emergent sprays shall be used. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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, the project site is not located in an area susceptible to liquefaction and the proposed project has been designed to avoid landslide deposits mapped on the project site with minimum 25-foot setbacks. The proposed development area is in an area with low chances of ground failure 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 in the proposed development area exhibit a low to moderate shrink-swell potential (USDA, 1978). However, 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 for the proposed project. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.

- f. The proposed project would not destroy any unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below, that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

Paleontological Resources – Conditions of Approval:

Discovery of paleontological resources during construction, grading, or other earth moving activities:

- In the event that a discovery of a breas, true, and/or trace fossils are discovered during ground disturbing activities, all work within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	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.

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including CO₂, methane, nitrous oxide, and fluorocarbons, which contribute to climate change. CO₂ is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. GHG emissions are reported as carbon dioxide equivalent (CO_{2e}) which is a metric used to compare the emissions from various GHGs on the basis of their global warming potential (GWP), by converting amounts of other gases with different GWPs to an equivalent amount of carbon dioxide with a GWP of one. CO₂ is used as the reference gas to calculate atmospheric carbon effects of GHGs. Carbon stocks and sequestration 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>).²⁵

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)²⁶ and included them in its updated CEQA guidance published in April 2023 (referred to as the 2022 CEQA Guidelines). The updated thresholds to evaluate GHG and climate impacts are qualitative in nature and geared toward reducing building energy and transportation emissions from land use development projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., a qualified 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 the 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 construction-related climate impact threshold at this time. As GHG emissions from construction represent a 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 a project's GHG emissions.

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

²⁵ "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO₂. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

²⁶ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

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 emissions to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that 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 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>. However, 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, construction and operational GHG emissions from the project are evaluated against the 1,100 metric tons (MT) per year GHG threshold from the neighboring Sacramento Metropolitan Air Quality Management District (SMAQMD). While air quality emission thresholds are difficult to apply to across air districts due to the regional nature of air quality impacts, GHG emission impacts are global in nature. Therefore, the use of neighboring air district thresholds is an adequate evaluation given the absence of GHG thresholds from BAAQMD or a qualified CAP for the County. However, the County, as the Lead Agency, has opted to use a no net increase threshold for the evaluation of carbon dioxide (CO₂) emissions through carbon sequestration and carbon stock from vegetation at the project site.

Carbon sequestration refers to the ongoing process by which plants, such as vines, trees, and grasses absorb CO₂ from the atmosphere through photosynthesis, converting it into carbon that is stored in their biomass (roots, stems, leaves) and soil. This process helps remove CO₂ from the atmosphere over time. Any changes in land use or vegetation that reduce carbon sequestration—such as removing natural vegetation or converting land for other uses—lead to ongoing reductions in this CO₂-capturing benefit, potentially increasing the amount of CO₂ that remains in the atmosphere annually. A decrease in carbon sequestration is considered an increase in CO₂ emissions.

Carbon storage refers to the carbon stocks held in the soil and vegetation. When land is altered or vegetation is removed, the carbon stored in plants and soil can be released back into the atmosphere as a one-time event. Similarly, adding vegetation to a site would increase carbon stock. Unlike sequestration, which is an active, recurring process, changes to carbon stock typically result in a one-time change of CO₂, and not an ongoing loss or gain over time.

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.

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.

Because BAAQMD does not provide significance thresholds for operational emissions that could be applied to the proposed project, the operational emissions are compared to the SMAQMD annual GHG threshold to provide context for the magnitude, or lack thereof, of operational emissions global impacts.

Emissions from change in vegetation associated with the proposed project 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, released when soil is ripped in preparation for vineyard development and planting (referred to as Carbon Stock Emissions); iii) ongoing carbon sequestration that is gained or lost by altering vegetation or conserving specific vegetation types (referred to as Carbon Sequestration Emissions).

Construction Emissions:

Construction emissions associated with vineyard development projects include emissions from fuel used in construction equipment and vehicle trips used to develop and prepare the development area and plant vineyard. As discussed in **Section III (Air Quality)**, three County Certified CEQA documents 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 highest emissions results of the three projects; the KJS EIR anticipated approximately 1,880 metric tons (MT) CO_{2e} of construction emissions for a 142-acre vineyard development, resulting in approximately 19.2 MT CO_{2e} of construction equipment emissions per acre of vineyard development.²⁷ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed project's 56.2 gross acres of vineyard development would be approximately 1,081 MT CO_{2e} (56.2 acres multiplied by 19.24 MT CO_{2e}). Construction emissions are seasonal in nature and would only occur during the dry season (April-September) of any given year. While BAAQMD has no quantitative GHG threshold for comparison, the project's construction equipment emissions are below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e} and therefore can be considered less than significant.

Operational Emissions:

Emissions associated with the operation of the vineyard capture ongoing emissions from the use of equipment and vehicles to maintain and farm the vineyard, including vehicles (such as haul trucks, pick-up trucks) and worker vehicle trips. The three vineyard development project analyses referenced above also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential operational emissions per acre of vineyard development were derived using the highest emissions results of the three projects; the Stagecoach North Vineyard EIR estimated approximately 322 MT CO_{2e} of operational emissions per year for a 116-acre vineyard, resulting in approximately 2.77 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission rate, it is anticipated that operational equipment emissions associated with the proposed 56.2-acre agricultural development would be approximately 156 MT CO_{2e} per year (56.2 multiplied by 2.77 MT CO_{2e}). Operational emissions are also seasonal in nature, mostly occurring during the harvest season. While the BAAQMD's qualitative operational thresholds do not apply to projects such as the proposed project which do not generate emissions from building energy and transportation, the project's operational emissions can be considered less than significant when compared to SMAQMD's operational threshold of 1,100 MT CO_{2e} per year.

Emissions from Change in Vegetation:

Converting existing land uses into vineyard can impact both carbon stock and sequestration from vegetation and soil. Approximately 10.8 acres of oak woodland canopy would be removed with the proposed project. In compliance with NCC Section 18.108.020(D), the ECP prepared for the proposed project identified an approximate 32.4-acre proposed preservation area on the project site, 11.2 acres of which is on slopes less than 30%, as shown in **Exhibit B-4** and described in **Mitigation Measure BIO-4**. Therefore, the proposed project would permanently preserve greater than 1:1 acres of canopy on slopes less than 30% and outside of stream setbacks. The full 32.4-acre preservation area consists of a mix of oak woodland, mix oak forest, and Douglas fir forest. The proposed preservation area is contiguous to existing the existing Forever Wild Zone and connects to existing riparian corridors, further increasing protection, use and availability of these areas by local wildlife. By preserving a minimum of 32.4 acres of vegetation, the project is considered to have a no net change to carbon vegetation or soil stock and sequestration. Therefore, the impact would be less than significant.

²⁷ 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.

	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 used for ongoing vineyard maintenance and operation of the proposed vineyard is provided within Supplemental Project Information forms on file at the Planning Department.

Onsite storage of hazardous materials is proposed to occur in a locked garden shed adjacent to proposed vineyard Block E. Chemical mixing or cleaning and washing of chemical application equipment would occur at this same location. Fertilizers (i.e., 12-26-26 and 0-0-30) would be applied via drip twice every year. Mildewcides (i.e., sulphur) would be dusted onto the vines up to five times per year. Herbicides (i.e., Lifeline) would be sprayed once every year.

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).

Maxwell Creek, which runs through the project site, is the nearest blueline stream located approximately 250-600 feet south of the proposed development area, and a number of ephemeral drainages are located adjacent to the proposed vineyard blocks and have minimum 35-foot setbacks in accordance with NCC 18.108.025 (see Figure W2 in **Exhibit B-1**). Minimum 50-foot setbacks have been maintained for other sensitive aquatic resources such as wetlands and ponds in accordance with NCC 18.108.025 (**Exhibit A-1**). Therefore, no waterways have the potential to be significantly impacted by the proposed project.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) there are no streams located within 35 feet or wetlands located within 50 feet of the proposed development area; and ii) 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, Pacific Union College Elementary School, Pacific Union College, and the St. Helena Montessori School, are located approximately 5.5 and 5.8 miles to the northwest, and 6.6 miles to the southwest of the project site, respectively (Napa County GIS, Schools Layer). There are no schools within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer; GeoTracker, 2024). Therefore, no impact would occur.
- e. 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 Airport Land-use Compatibility Plan, 1991, and Napa County GIS Airport Layer). The closest airfield, Angwin-Parrett Field, is located approximately 2.7 miles northwest. Therefore, no impact would occur.
- f. During construction, there would be negligible numbers of workers (up to 24 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 Responsibility Area (SRA) and has a Very High Fire Hazard Severity Zone designation (CalFire, Fire Hazard Severity Zone 2024; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zones). The risk of fire in vineyards due to the proposed project is low due to the limited amount of fuel, combustibles, and ignition sources that would be 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 the vineyard may result in an overall reduction of fuel loads within the project site as compared to 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; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

The majority of the project site is located within the Sacramento River watershed (Maxwell Creek), which flows through the eastern side of the Napa Valley and is a tributary to the Sacramento River; a small portion of the project site is located within the Napa River Watershed (Chiles Creek), which flows through the Napa Valley and is a tributary to the San Pablo Bay. The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the CWA. Historically, the construction of large dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002). The project site is not located within the Groundwater Sustainability Area (GSA) Subbasin.

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).

Maxwell Creek, which runs through the project site, is the nearest blueline stream (and county designated significant stream) located approximately 250-600 feet south of the proposed development area, and a number of ephemeral drainages are located adjacent to the proposed vineyard blocks (Figure W2 in **Exhibit B-1**). Minimum 35-foot stream setbacks have been maintained from the ephemeral drainages in accordance with NCC Section 18.108.025.

Public Trust: The public trust doctrine requires the state and its legal subdivisions 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.; *San Francisco Baykeeper, Inc. v. State Lands Com.*) There is no “procedural matrix” governing how an agency should consider public trust uses. (*Citizens for East Shore Parks v. State Lands Com.*) 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 demonstrated in the Environmental Law Foundation vs State Water Resources Control Board Third District Appellate Court Case, that arose in the context of a lawsuit over Siskiyou County’s obligation in administering groundwater well permits and management program with respect to Scott River, a navigable waterway (considered a public trust resource), the court affirmed that the public trust doctrine is relevant to extractions of groundwater that adversely impact a navigable waterway and that Counties are obligated to consider the doctrine, irrespective of the enactment of the Sustainable Groundwater Management Act (SGMA).

On January 10, 2024, Napa County released the Interim Napa County Well Permit Standards and WAA Requirements - January 2024, providing guidance to comply with the Public Trust.

The proposed project will utilize existing surface water rights to irrigate the proposed new vineyard and continue to irrigate the existing vineyard. No new or expanded reservoirs are proposed and no use of groundwater is proposed as part of this ECPA. Although the development area is within 1,500 feet of a County-designated “Significant Stream” for the assessment of groundwater pumping impacts, no groundwater would be pumped for or stored in the reservoir and therefore a WAA was not required or prepared for this project. Additionally, the California State Water Resources Control Board (Waterboard) assesses public trust values when evaluating water rights permit applications. It is an “overriding concern” in their decisions, and they must balance proposed water use with public trust resources like fisheries, wildlife, and aesthetics and since the project proposes to utilize existing water rights permit, with no increase in allocation, public trust has already been analyzed.

- 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 #P23-00130-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.

Portions of the project are located within a Sensitive Domestic Drainage (Lake Hennessey), and as such the project was routed to and reviewed by the Local Water Purveyor (City of Napa). The City determined that the proposed erosion control plan application is sufficient to address their requirements. A copy of the email correspondence and memo from the City can be found in **Exhibit I – Correspondence**.

- b. The County requires all ECPA applicants to complete necessary water analyses to document that sufficient water supplies are available for a proposed project. Because the project would not rely on groundwater it is not subject to the County’s WAA Guidance Document.

The anticipated water demand for irrigation of the proposed 42 net acres of vineyard would be approximately 34 AF/yr (based on water use table from **Exhibit A.2 ECP Narrative**). The proposed vineyard would be irrigated using surface water diverted to storage under water right License 5300 (Application 13711) and License 6874 (Application 16960). License 5300 allows for the diversion to storage of up to 183 AF/yr from Maxwell Creek (at a point of diversion at Maxwell Lake) from November 1 to April 1 of the succeeding year; maximum withdrawal from storage in Maxwell Lake in any one year cannot exceed 123 acre-feet. License 6874 allows for the diversion to storage of up to 12 AF/yr from Maxwell Creek (at a point of diversion located on the downstream side of an existing onstream pond) from November 1 to June 1 of the succeeding year. Copies of existing water rights permits and amendment, as well as the water rights place of use map can be found in **Exhibits E-2 through E-8**.

License 5300 currently allows for the diversion of water from Maxwell Creek to storage for irrigation of 50 acres (i.e., place of use). Pending Amendment to Petition for Change for License 5300 filed with the State Water Resources Control Board Division of Water Rights by Wagner & Bonsignore Consulting Civil Engineers on October 6, 2014, would change the place of use to 212 acres; the net proposed vineyard acreage would be located within this place of use. License 6874 currently allows for the diversion of water from Maxwell Creek to storage for irrigation of 2.5 acres (i.e., place of use). Pending Amendment to Petition for Change for License 6874 filed with the State Water Resources Control Board Division of Water Rights by Wagner & Bonsignore Consulting Civil Engineers on October 6, 2014, would change the place of use to 126 acres (which partially overlaps with the place of use for License 5300); the net proposed vineyard acreage would be located within this place of use. The existing vineyard on-site is already watered utilizing the existing water rights and utilizes 64.1 AF/yr. The new vineyard would require an additional 34 AF/yr, as noted earlier in this discussion, for a total new vineyard water use of 98.1 AF/yr. In addition to the 2 AF/yr of water use from the existing residential uses, and 6.6 AF/yr for the existing winery, total site water use will go from 72.7 AF/yr to 106.7 AF/yr. This is less than the 195 AF/yr of diverted surface water permitted under the aforementioned water right’s licenses.

A Baseflow Water Availability Memorandum was prepared to document that streamflow availability in Maxwell Creek is sufficient to meet the surface water allotments of the points of diversion at Maxwell Creek under Licenses 5300 and 6874 (O'Connor Environmental, Inc. June 2024 – **Exhibit E-1**). For License 5300, in an average water year (2010), runoff to the point of diversion was calculated as 386 AF/yr, with the diversion under License 5300 representing 47% of the runoff. In a dry water year (2014), runoff to the point of diversion was calculated as 192.6 AF/yr, with the diversion under License 5300 representing 95% of the runoff. In the 10-year (2012-2021) average water year scenario, runoff to the point of diversion was calculated as 415.7 AF/yr, with the diversion under License 5300 representing 44% of the runoff. For License 6874, in an average water year (2010), runoff to the point of diversion was calculated as 52 AF/yr, with the diversion under License 6874 representing 23% of the runoff. In a dry water year (2014), runoff to the point of diversion was calculated as 23.6 AF/yr, with the diversion under License 6874 representing 51% of the runoff. In the 10-year (2012-2021) average water year scenario, runoff to the point of diversion was calculated as 56.4 AF/yr, with the diversion under License 6874 representing 21% of the runoff. The analysis demonstrated that the proposed vineyard could be irrigated with water under Licenses 5300 and 6874 without the need for groundwater in dry year conditions as well as in average year conditions.

Considering: i) anticipated annual water use of the proposed project is below the streamflow availability in Maxwell Creek at the point of diversion at Maxwell Lake under License 5300; and ii) incorporation of the water supply conditions of approval below, there is sufficient surface water available to meet the allotment of the point of diversion at Maxwell Lake under License 5300 and no groundwater use is proposed. Therefore, the proposed project (if approved) would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Water Supply – Conditions of Approval:

- The approved water source for vineyard developed and maintained pursuant to #P23-00130-ECPA shall be surface water appropriated under State Water Resources Control Board, Division of Water Rights License 5300 (Application 13711) and License 6874 (Application 16960). The owner/permittee shall provide a copy of Water Right Licenses 5300 and 6874 to the County prior to commencing any earthmoving activity associated with vineyard development documenting that water appropriated under the licenses is approved for place of use within the 42 acre net vineyard area associated with #P23-00130-ECPA.
 - No new or existing on-site or off-site water sources, other than that evaluated as part of this ECPA (i.e., water right License 5300 and 6874) shall be used for vineyard irrigation. Any other proposed irrigation source, including but not limited to wells, imported water, new or existing ponds/reservoir(s) or other surface water impoundments, to serve the vineyard, shall not be allowed without additional environmental review conducted by the County, if necessary, and may be subject to a modification to this ECPA.
- c. Earthmoving activities have the potential to alter the natural pattern of surface runoff, which could lead to areas of concentrated runoff and/or increased erosion. The conversion of existing vegetation to vineyard would alter the composition of the existing land cover and infiltration rates, which could affect erosion and runoff. The proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of impervious surfaces that would concentrate runoff.

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include establishment of a no-till cover crop with vegetative cover density minimum of 80% for all proposed vineyard blocks, and the application of straw mulch cover on all disturbed areas as needed to achieve the required coverage. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibits F-1 and F-2** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include installation of temporary erosion control measures such as straw wattles, straw mulching, fiber rolls, and other practices as needed. Permanent erosion control measures include rock benches and a permanent 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 Hydrology Report for the proposed project was prepared by HD Vine LLC (September 2024 – **Exhibit F-1**). The Hydrology Report used an analysis that compares area-weighted land cover factors before and after vineyard development. These calculations indicate that the proposed project would not result in a change in land use cover factors and therefore no increase in peak flow and runoff, 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.²⁸

- 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, 2023). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the ECP to area watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact on or offsite water resources. Because the proposed project as designed is not expected to increase overall runoff rates or decrease times of concentration in relation to existing conditions (as discussed in Question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 81.5 tons per 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?	☐	☐	☐	☒

²⁸ 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)**.

- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

☐☐☒☐

Discussion

- a. The project site is located on Chiles Pope Valley Road and the nearest established community is Saint Helena, approximately 5.4 miles southwest of the project site. Existing improvements on the project site include a residence, fencing, existing vineyard, access roads, worker housing, the Maxville Winery and tasting room, Maxwell Lake, three ponds, four groundwater wells that serve domestic, residential and winery uses, and associated water diversion infrastructure. Surrounding areas contain agricultural, winery and rural residential areas. Therefore, the proposed vineyard and subsequent vineyard operations are consistent with surrounding land uses and would not physically divide an established community. No impact would occur.
- b. The project site is zoned as Agricultural Watershed and is designated under the Napa County General Plan as Agricultural Resource and Agriculture, Watershed, and Open Space. Surrounding parcels are also zoned Agricultural Preserve and Agriculture, Watershed and Open Space 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 measure 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 81.5 tons per year and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and reduce runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1 through BIO-4** is consistent with Policies CON-13, CON-16 and CON-17 which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources, as well as the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities. A Biological Resources Assessment was prepared for the proposed project (**Exhibits B-1 and B-2**). The project as proposed would minimize potential direct, indirect, and cumulative impacts to special-status species and associated habitat occurring in the project site with implementation of **Mitigation Measures BIO-1 through BIO-4**. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that impacts to special-status species and their habitat can be minimized.
- With implementation of **Mitigation Measures BIO-1 through BIO-4**, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- 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.
- With the implementation of **Mitigation Measure BIO-4**, the proposed project exceed the preservation requirements exceed the preservation requirements of Policy CON-24, of 2 acres of oak woodland for every 1 acre impacted.
- The project site contains 0.47 acre of wetlands within its boundaries, minimum 50-foot setbacks have been maintained from the wetlands in accordance with NCC Section 18.108.025 and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands.
- 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 would not increase 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 Agriculture, Watershed and Open Space (AWOS) and is therefore consistent with Policy AG/LU-20.

- The proposed project is consistent with the General Plan land use designation of Agricultural Resource and is therefore consistent with Policy AG/LU-21.

For these reasons, the proposed project, with the mitigation measure and conditions of approval incorporated, would not 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, 2-3 and Map 2-1, 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, California Department of Conservation, 2016). The nearest known mineral resources area in Napa County is the Vulcan, located approximately 21 miles southeast of the project site. The proposed 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 used for agriculture (vineyard), winery and rural residential uses interspersed with undeveloped grasslands and woodlands. The closest residences to the nearest project development area are located approximately 216 feet to the south, 270 feet to the north, and 982 feet west.

Activities associated with installation of the proposed project, including earthmoving, and subsequent vineyard operations, could generate noise levels above existing conditions. Several 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 vehicles and/or light trucks. **Table 7** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 7**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 7 – Construction Equipment Noise Emission Levels

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

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

Table 8 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 8 – Estimated Distance to dBA Contours from Construction Activities¹

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be approximately 75 dBA at the nearest existing offsite residence.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, chapter 6, 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 track and rubber wheel farming tractors and equipment, which would occur on a temporary and seasonal basis. **Table 9** 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 9 – Estimated Distance to dBA Contours from Farming Activities¹

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

¹ Based on a source noise level of 84 dBA.

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 70 dBA at the closest existing offsite residence.

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

During site preparation and vineyard installation, the use of heavy equipment could result in a temporary increase in ambient noise levels in the vicinity of the project site as described above. Compliance with measures identified in the County's noise ordinance for construction-related noise, such as a limitation of hours of construction activity and muffling of equipment, would result in temporary less-than-significant noise and vibration impacts, and would result in no permanent increase in ambient noise levels in the vicinity of the 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). The closest airfield, Angwin-Parrett Field, is located approximately 2.7 miles northwest. 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, 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 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. The closest residences to the project site are located approximately 216 feet to the south, 270 feet to the north, and 982 feet west. The proposed vineyard would not interfere with existing nearby residences. 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 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 part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

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

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

The County maintains a set of Transportation Impact Study Guidelines (Napa County TIS Guidelines, 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 includes a residence, fencing, existing vineyard, access roads, worker housing, the Maxville Winery and tasting room, Maxwell Lake, three ponds, four groundwater wells that serve domestic, residential and winery uses, and associated water diversion

infrastructure. The project site is accessed from existing private driveways off Chiles Pope Valley Road. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to six 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. During peak operations for activities such as vineyard pruning, weed and pest control, and harvest, the project is anticipated to generate up to four round trips per day. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance would also be intermittent during the non-peak hours, generally arriving between 12 a.m. and 4 a.m. and departing between 7 a.m. and 9 a.m.

Because the proposed project would be expected to generate up to approximately six daily round trips during construction and up to four round trips for ongoing operations and maintenance, be well 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. Further, operational trips are not anticipated to substantially increase because of the project due to the existing vineyard on the project site.

- c. The proposed project would use the existing private driveways off Chiles Pope Valley Road for project development. The proposed project does not include roadway improvements and/or modifications to the existing driveway or Chiles Pope Valley Road or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the project site and other Agricultural Watershed zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less-than-significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX (Hazards and Hazardous Materials)**, for additional discussion related to emergency access.
- e. The proposed project would generate its largest demand for parking (approximately four vehicles) during harvest, which would occur over approximately 45 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	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion

Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on February 16, 2024. No request for consultation was received and more than 30 days have elapsed since the County's consultation invitations were provided. Based on confirmation from the Middletown Rancheria Tribe on April 11, 2019, during preparation of the cultural resources study for the proposed project that the project site is within their ancestral area of concern, Middletown Rancheria participated in the fieldwork for the cultural resources study.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project's cultural resources reconnaissance (Tom Origer & Associates, 2019) identified several archaeological resources (including five isolated obsidian specimens, a site with bedrock mortars, a midden site, and a historic-era site) and one built environment resource (a fence ditch) in the survey area. The areas of the proposed vineyard blocks evaluated in the cultural resource reconnaissance were from an early planning design and have since been revised and reduced with the proposed project to meet recommendations to fully avoid the resources. Further, through consultation with Middletown Rancheria, **Mitigation Measure CUL-1** and the Cultural Resources Conditions of Approval in **Section V (Cultural Resources)** were developed and will be implemented to mitigate and condition the project to ensure there are no significant impacts to Tribal cultural resources.

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

	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 ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater, and surface water sourced from Maxwell Creek would provide irrigation water to the vineyard (see the Water Supply conditions of approval in **Section X [Hydrology and Water Quality]**). Irrigation pipelines would be located in 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 straw wattles, straw bale dikes, silt fences, fiber rolls, straw mulch applied at 4,000 pounds per acre, and a permanent 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), IX (Hazards and Hazardous Materials), and XVIII (Tribal Cultural Resources)** would result in a less-than-significant impact.

b. Typically, the annual irrigation season ranges from late May to September. A Baseflow Water Availability Memorandum was prepared to document that streamflow availability in Maxwell Creek is sufficient to meet the surface water allotments of the points of diversion at Maxwell Creek under Licenses 5300 and 6874 (O'Connor Environmental, Inc. June 2024 – **Exhibit E**). For License 5300, in an average water year (2010), runoff to the point of diversion was calculated as 386 AF/yr, with the diversion under License 5300 representing 47% of the runoff. In a dry water year (2014), runoff to the point of diversion was calculated as 192.6 AF/yr, with the diversion under License 5300 representing 95% of the runoff. In the 10-year (2012-2021) average water year scenario, runoff to the point of diversion was calculated as

415.7 AF/yr, with the diversion under License 5300 representing 44% of the runoff. For License 6874, in an average water year (2010), runoff to the point of diversion was calculated as 52 AF/yr, with the diversion under License 6874 representing 23% of the runoff. In a dry water year (2014), runoff to the point of diversion was calculated as 23.6 AF/yr, with the diversion under License 6874 representing 51% of the runoff. In the 10-year (2012-2021) average water year scenario, runoff to the point of diversion was calculated as 56.4 AF/yr, with the diversion under License 6874 representing 21% of the runoff. The analysis demonstrated that the proposed vineyard could be irrigated with water under Licenses 5300 and 6874 without the need for groundwater in dry year conditions as well as in average year conditions. Water availability and water use are discussed in greater detail in **Section X (Hydrology and Water Quality)**.

- c. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.
- d-e. Rock removed during vineyard development would be used for vineyard avenues or landscaping. 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 in accordance with BAAQMD regulations, or a combination of the two practices. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

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

Discussion

The project site is located in a State Responsibility Area (SRA) and has a Very High Fire Hazard Severity Zone designation (CalFire, Fire Hazard Severity Zone 2022; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zones). The general topography in the vicinity of the project site consists of the relatively flat and narrow Chiles Valley which is surrounded by rolling mountains in all directions. Average slopes in the proposed development area range from 5% to 37%, with an average slope of 20%; approximately 1.7 acres are on slopes over 30%.

- 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; no impact would occur. 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. The proposed project does not include any infrastructure that would exacerbate fire risk. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk, and this impact would be less than significant.

- 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 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 #P23-00130-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. Habitat for special-status bird, bat, amphibian, reptile, insect and fish species has been identified in the project site. Implementation of **Mitigation Measures BIO-1 through BIO-4** would avoid potential impacts to special-status and protected species.

No new wildlife exclusion fencing is proposed. 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 would result in portions of the site having reduced potential for on-site wildlife movement, the proposed project would preserve 32.4 acres of land contiguous to the existing Forever Wild Zone and connecting to existing riparian corridors, further increasing protection, use and availability of these areas by local wildlife. As such, the proposed project would not introduce any new significant movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant. The range of special-status plant species would not be restricted and cumulative impacts are anticipated to be less than significant. To reduce impacts on water quality within streams, the proposed project has been designed to avoid drainages with minimum 35-foot setbacks and wetlands and ponds with minimum 50-foot setbacks in accordance with NCC Section 18.108.025.

With the incorporation of standard conditions of approval and the implementation of **Mitigation Measure CUL-1** to protect cultural and Tribal cultural resources that may be discovered accidentally, significant impacts to cultural and Tribal cultural resources are not expected (**Section V [Cultural Resources]** and **XVIII [Tribal Cultural Resources]**).

Therefore, the proposed project as designed with the incorporation of **Mitigation Measures BIO-1 through BIO-4, CUL-1**, and the conditions of approval, would have a less-than-significant potential to degrade the quality of the environment or eliminate important examples of the major periods of California history or prehistory.

The project site is located in the Maxwell Creek – Upper Reach drainage of the Putah Creek Watershed which drains to the Sacramento River, and the Chiles Creek – Main Fork drainage of the Napa River Watershed which drains to the Napa River.

The Chiles Creek – Main Fork drainage area (Napa River) contains approximately 4,125.8 acres. In 1993, vineyard acreage within this drainage was approximately 184.83 acres, or 4.48% of the drainage. Since 1993, approximately 149.46 acres of additional vineyard (or 3.62% of the drainage) have been developed to vineyard, resulting in approximately 8.1% of the drainage (or approximately 334.29 acres) containing vineyard. It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Chiles Creek – Main Fork drainage, that there are approximately 513.06 acres (12.44% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 334.29 acres), results in a total potential build out of approximately 847.35 acres or approximately 20.54% of the drainage.

The Maxwell Creek – Upper Reach Drainage area (Sacramento River) contains approximately 5,238.63 acres. In 1993, vineyard acreage within this drainage was approximately 90.82 acres, or 1.73% of the drainage. Since 1993, approximately 161.36 acres of additional vineyard (or 3.08% of the drainage) have been developed to vineyard, resulting in approximately 4.81% of the drainage (or approximately 252.18 acres) containing vineyard. It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Maxwell Creek – Upper Reach Drainage, that there are approximately 1,103.27 acres (21.06% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 252.18 acres), results in a total potential build out of approximately 1,355.45 acres or approximately 25.87% 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., Napa River watershed and Sacramento River watershed) over the last 31 years (1993-2024) were used to project an estimation of vineyard development for the next three to five years.

Over the past 31 years within the Chiles Creek – Main Fork Drainage (Napa River), approximately 10.78 acres of vineyard was developed per year (334.29 acres divided by 31 years). 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 32.35 to 53.92 acres over the next three to five years within the Drainage are considered reasonable estimates.

Over the past 31 years within the Maxwell Creek – Upper Reach Drainage (Sacramento River), approximately 8.13 acres of vineyard was developed per year (252.18 divided by 31). 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 24.39 to 40.65 acres over the next three to five years within the Sacramento River 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 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. As discussed in **Section III (Air Quality)** and shown in **Table 5** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be below identified thresholds for all emissions except NOx. To reduce NOx emissions from construction equipment to a less than significant level, **Mitigation Measure AQ-1** would be implemented. Therefore, the proposed project is 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 air quality effects of the proposed project and ongoing operation. While BAAQMD has no quantitative GHG threshold for comparison, the project's construction and operational equipment emissions are below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e} and can be considered less than significant.

With the implementation of **Mitigation Measure BIO-4**, the proposed project would permanently preserve greater than 1:1 acres of canopy on slopes less than 30% and outside of stream setbacks. The full 32.4-acre preservation area consists of a mix of oak woodland, mix oak forest, and Douglas fir forest, therefore, the project is considered to have a no net change to carbon vegetation or soil stock and

sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources – Section IV:

A project-specific biological resources assessments (Northwest Biosurvey, December 2022 – **Exhibits B-1 and B-2**) were performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species due to the proposed project. The surveys included database records searches to identify the presence or potential presence of special-status species within the project site. As discussed in **Section IV (Biological Resources)**, two special-status plant species and one plant species threatened in California were identified on the project site outside of the proposed development area. No special-status animal species were identified in the proposed development area. There are no streams or wetlands within the proposed development area that would be affected by the proposed project; minimum 35-foot stream setbacks have been maintained from the ephemeral drainages and minimum 50-foot stream setbacks have been maintained from other aquatic features in accordance with NCC 18.108.025. With the incorporation of **Mitigation Measures BIO-1 through 4**, special-status birds, bats, amphibians, reptiles, and fish, as well as bird nests and bat roosts, and oak woodland and canopy cover would be protected. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Cultural Resources – Sections V and XVIII:

The cultural resources reconnaissance (Tom Origer & Associates, 2019) identified several archaeological resources and one built environment resource in the project site. With the incorporation of standard conditions of approval and implementation of **Mitigation Measure CUL-1** to protect cultural and Tribal cultural resources that may be discovered accidentally, significant impacts to cultural and Tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**); therefore, 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 81.5 tons/year as compared to existing conditions. The reasons for this reduction are 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 Sacramento River or Napa River watersheds. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hazards and Hazardous Materials – Section IX:

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

Hydrology and Water Quality – Section X:

Water use calculations provided in the Baseflow Water Availability Memorandum prepared by O'Connor Environmental, Inc. (June 2024 – **Exhibit E**) indicate that the proposed development consisting of approximately 42 net acres of planted vineyard would result in approximately 34 AF/yr of surface water use under water right License 5300 (Application 13711) and License 6874 (Application 16960). The proposed project would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels given that the proposed vineyard would be irrigated with water under Licenses 5300 and 6874 without the need for groundwater in dry year conditions as well as in average year conditions.

As discussed in **Section X (Hydrology and Water Quality)** a Hydrology Report was prepared by HD Vine LLC (September 2024– **Exhibit F-1**). Because the proposed project would not result in a change in land use cover factors, 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 project (**Exhibit F-1**). Therefore, no significant impacts due to changes in hydrology are expected.

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

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

Land Use and Planning – Section XI:

As discussed in **Section XI (Land Use and Planning)**, the proposed project, with implementation of the mitigation measures and conditions of approval identified in this Initial Study, achieves compliance with applicable NCC requirements and General Plan Goals and Policies. The proposed project would not conflict with 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 the conversion of important farmland, forestland, or timberland. 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 measure and conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

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

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LIST OF EXHIBITS:

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Exhibit A-2	Erosion Control Plan Narrative
Exhibit A-2.a	Erosion Control Plan Narrative - Addendum
Exhibit B-1	Biological Resource Assessment
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Exhibit B-3	Review of Woodland Conservation Plan
Exhibit B-4	Canopy Preservation Area
Exhibit B-5	Land Trust Consent Letter
Exhibit C	Stability Report
Exhibit D-1	Soil Loss Analysis
Exhibit D-2	USLE Flowline Map
Exhibit E	Baseflow Water Availability
Exhibit E-1	Water Right Place of Use Map
Exhibit E-2	Amended License for Diversion and Use of Water License 5300
Exhibit E-3	Amendment to Petition for Change License 5300
Exhibit E-4	Amended License for Diversion and Use of Water License 6874
Exhibit E-5	Amendment to Petition for Change License 6874
Exhibit E-6	Right to Divert and Use Water Registration L032173
Exhibit E-7	Right to Divert and Use Water Registration L023174
Exhibit F-1	Hydrology Report
Exhibit F-2	Hydrology Map
Exhibit G	Project Revision Statement
Exhibit H	Application and Photos
Exhibit I	Correspondence