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

Initial Study Checklist
(form updated January 2019)

1. Project Title: Nikolau Vineyard Track I Erosion Control Plan Application (ECP) #P22-00044-ECP-Exemption

2. Property Owner(s): Paul and Joyce Nikolau

3. Contact Person, Phone Number and Email: Dana Morrison, Planner III, (707) 253-4437, dana.morrison@countyofnapa.org

4. Project Location and APN:

   432 Dutch Henry Canyon Road
   APN: 018-050-072
   Lot 37, Township 9 North, Range 6 West, Mt. Diablo Principal Meridian
   Longitude - 122°31' 41.412"W; Latitude 38°35' 50.856"N

5. Project Sponsor: Applied Civil Engineering, Inc.
   Agent: Michael Muelrath (Registered Professional Engineer No. __67435__)
   2160 Jefferson Street, Suite 230
   Napa, CA 94559

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

7. Zoning: Agricultural Watershed (AW)

8. Background & History: The approximately 60-acre parcel includes a single-family residence, garage, shed, reservoir, well, driveway and associated landscaping. The property was burned in the 2020 Glass Fire and while the existing residence on the parcel survived, a large number of existing trees and vegetation were lost, in addition to the garage, and some additional accessory structures (of which only the garage and one (1) shed has been replaced; no other structures are planned to be replaced). There is no history of intensive agriculture, quarrying or mining on the subject parcel. However, based on historic aerials the site appeared to have been actively timbered in the late 19th and 20th century.

9. Description of Project:

   The proposed project involves the clearing of vegetation, earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 3.4 gross acres of new vineyard (i.e., development area, proposed clearing limits; approximately 2.5 net acres of vines) within one (1) vineyard block, located on an approximately 60-acre parcel (i.e., project site) (Figure 3). Average slopes within the development area range from 17 percent (%) to 24%, with 0.5 acres occurring on slopes over 30%. Per Ordinance No. 1438, Section 17 earthmoving activities associated with an agricultural project of five (5) acres or less on slope of less than 30% can utilize a one-time exemption whereby the project is required to comply with the Conservation Regulation in effect prior to the effective date of Ordinance No. 1438. As such, the project is exempt from the vegetation requirements of Napa County Code (NCC) Section 18.108.020. Trees within the proposed vineyards block were severely impacted by the 2020 Glass fire and a Notice of Emergency Timber Operations was granted in August 2021 for the removal of dead and dying trees (Exhibit G). A total of 95 trees have been harvested from the project site, the project proposes to removal an additional four (4) trees, if approved. Per new Bay Area Air Quality District Management District policies in regards to Green House Gas (GHG) emissions, the project is required to result in no net decrease in sequestration capabilities. As such, even though the project is exempt from NCC Section 18.108.020, it will require the preservation of 2.9 acres of comparable woodland to offset the 2.9-acres of Douglas Fir vegetation proposed for removal in order to meet the new air quality CEQA threshold. The applicant has identified 2.9 acres of Douglas-fir forest to be designated as a permanent preserve to meet the new greenhouse gas threshold. All temporary debris, vegetation, soil and soil amendment stockpiles and storage areas, if needed, will be located within the proposed vineyard development area and clearing limits. A small area below the proposed vineyard block has been identified for permanent disposal of stumps and rocks, and is included in the overall project area statistics. Rock generated as a result of site preparation will be disposed of within the development footprint by being buried in the vineyard roads or will be placed in the permanent stump and rock disposal area. Rock may also be processed and used for lining existing roads within the vineyard development. Temporary rock stockpiles and staging areas would be located inside of proposed clearing limits. No grading activities or ground disturbance would occur outside of the proposed clearing limits. The vineyard would be irrigated with water sourced from an

existing groundwater well, and pipelines would be located in existing roadways, vineyard avenues and/or within the proposed clearing limits. There is no existing deer fencing on the property and the project proposes to fence in the entire vineyard block. Said fencing will be outside of the required stream and reservoir setbacks. All roads required to provide access to the project site are existing and no new roads are planned as part of this project. (Exhibit A)

Erosion Control Measures: Temporary erosion control measures include straw wattles, water bars, straw bale dikes, and the application of straw mulch at a rate of 3,000 pounds per acre. Permanent erosion control measures include rolling dips and a permanent no-till cover crop maintained at a minimum vegetation cover density of 85%. Details of the proposed erosion control measures are provided in the Nikolau Vineyard ECP #P22-00044-ECP-Exemption, dated December 2021, prepared by Mike Muelrath (Registered Professional Engineer No. 67435) of Applied Civil Engineering, Napa, California (Exhibit A).

Earthmoving*:* Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation include, but are not limited to vegetation removal, soil ripping, rock removal, disking, and development of erosion control measures.

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

a. Clearing and grubbing of existing vegetation (grass, shrubs, trees, etc.) and root systems
b. Minor re-contouring of existing topography to promote sheet flow
c. Ripping as needed to fracture subsoils and rock to a depth of approximately 36 to 48 inches to prepare soil for planting and to incorporate soil amendments (ripping to be limited to vineyard block areas shown on the plans)
d. Mechanical and hand rock raking to remove loose rocks from the ground surface
e. Discing and harrowing to prepare seedbed for vegetative erosion control measures
f. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 5-foot by 7-foot spacing pattern (or 4-foot by 7-foot) for an approximate vine density ranging between ±1,245 and ±3,113 vines per acre.
g. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
h. Ongoing operation and maintenance of the vineyard, which includes the following: vine management (pruning, fertilization, pest and disease control), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. No pre-emergent herbicides would be used, and contact or systemic herbicides may be applied in the spring. The width of the spray strip shall be no wider than 18 inches in order to achieve 85% vegetative cover (based on a 7-foot row spacing).

Table 1 lists a general schedule for the construction of the proposed project as identified in #P22-00044-ECP-Exemption and Table 2 outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P22-00044-ECP-Exemption.

Table 1 – Implementation Schedule

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

[1] During the winter months (October 15 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Section 18.108.070(L).

Table 2 – Annual Operations Schedule

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

Project construction activities are anticipated to require up to approximately 50 one-way worker trips per day for work crews of between 2-3 workers per vehicle, with two (2) additional trips anticipated for project mobilization and demobilization for equipment and materials delivery and pick up. Construction equipment is anticipated to include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, pickup trucks, passenger vehicles, and other small to medium service vehicles.

Vineyard operations, including pruning and harvest is anticipated to require up to approximately 20 one-way worker trips per day for work crews of approximately ten (10) workers who are anticipated to carpool. Approximately two (2) to ten (10) additional one-way trip per day are anticipated for grape haul trucks during harvest, which is expected to be one (1) to five (5) days. Equipment for vineyard operations is anticipated to include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles. Vineyard operations would result in a maximum of 20 trips per day during peak days (harvest, pruning, weeding, etc.). This is less than the 110

daily trips designated by the Bay Area Air Quality Management District (BAAQMD), whereby projects are considered to have a less than significant impact on transportation GHG levels.

Implementation of the proposed project would be in accordance with the Nikolau ECP prepared by Applied Civil Engineering (December 2021 - Exhibit A-1). 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).

10. Describe the environmental setting and surrounding land uses.

The proposed project would occur on one (1) parcel totaling approximately 60 acres located at 432 Dutch Henry Canyon Road in Napa, California (Figures 1-3). The project site is located approximately 2.8 miles northeast of the City of Calistoga. The parcel consists of a single-family residence, garage, shed and associated infrastructure, landscaping and access roads, as well as undeveloped areas; consisting of nonnative grassland and predominantly Douglas-fir forest, along with some small communities of chamise chaparral, coast live oak, as well as madrone and foothill pine woodland. Surrounding land uses include rural residences, vineyards, and open space.

The project site is located within the Dutch Henry Creek watershed. There are no blue-line streams located on the subject parcel. Dutch Henry Creek is located 1,500 feet east of the project site. While Dutch Henry Creek is an identified County Significant Stream, the project well proposed to irrigate the vineyard is located outside of the 1,500-foot setback designated from a Significant Streams. Dutch Henry Creek is a blue-line stream that flows southerly for approximately 1.4 miles at which point it merges with Biter Creek. Biter Creek drains to the Napa River, which empties into the San Pablo Bay, which is part of the San Francisco Bay Watershed. An existing reservoir (named Horse Pond) is located on the parcel along with two (2) ephemeral drainages. The two (2) ephemeral drainages are located to the northeast and northwest of the project area and fill the existing reservoir. As proposed the project maintains the required 35 foot setback from all water sources identified on site (Exhibit A and A-1).

General topography of the parcel is gently to steeply sloped (5%-50%) with all aspects represented, and elevations ranging from 947 to 1,665 feet above mean sea level (msl), within the eastern hills of Napa Valley. The project site contains slopes within the development area that are gently to moderately sloped on southeastern-facing slope, with elevations ranging from approximately 1,202 to 1,252 feet above msl. The Napa GIS database indicates the potential presence of landslides in the vicinity of the property; however, the project Engineer reviewed the California Geologic Service web-based landslide inventory and the identified feature was a landslide deposit of historic nature. As such, given the onsite soil conditions and shallow bedrock depths historical landslide features should not affect the proposed project (Exhibit G).

The nearest unnamed fault is located approximately 2.3 miles west of the project site, and runs in a north-south direction. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 2014, USDA 1978, and USDA 1972) as Boomer gravelly loam (30-50%), Forward gravelly loam (30-50%), Rock outcrop-Kidd complex (50-75%) and water (Applied Civil Engineering, December 2021 - Exhibit A-1).

The vegetation types in the project parcel generally consist of Douglas fir forest (42.0 acres), developed and landscaped area (3.1-acres), non-native annual grassland (3.8-acres), chamise chaparral (0.5-acres), coast live oak woodland (1.9-acres), pacific madrone forest (3.2-acres), and foothill pine woodland (0.8-acres). An existing reservoir and two (2) unnamed ephemeral drainages are also located on the parcel; no vineyard development is proposed within 35 feet of the existing reservoir and identified drainages. The 3.4 acres of project area proposed for conversion to vineyard consist of the following community types: developed and landscaped area (0.3-acres), non-native annual grassland (0.3-acres), and Douglas fir forest (2.9-acres). None of the identified chamise chaparral, coast live oak woodland, pacific madrone forest and foothill pine woodland communities are situated within the proposed vineyard development area.

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

Responsible (R) and Trustee (T) Agencies	Other Agencies Contacted
California Department of Fish and Wildlife (CDFW) (T)	Middletown Rancheria
U.S. Army Corps of Engineers (USACE) (R)	Mishewal Wappo Tripe of Alexander Valley
Regional Water Quality Control Board (Regional Water Board) (R)	Yocha Dehe Wintun Nation
California Department of Forestry and Fire Protection/CalFire (R)	

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

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on January 19, 2022. As of February 28, 2022 there was only one (1) response, from the Yocha Dehe, who did not raise concerns regarding the project.

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

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, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with ECP #P22-00044-ECP-Exemption 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:

- Applied Civil Engineering, Submittal December 2021 (Resubmittal April 2022), Erosion Control Plan, Nikolau Vineyards, 432 Dutch Henry Canyon Road (Exhibit A).
- Applied Civil Engineering, December 2021, Erosion Control Plan Narrative, Nikolau Vineyards, 432 Dutch Henry Canyon Road (Exhibit A-1).
- WRA, Inc., February 2022 (Resubmittal April 2022), Biological Resources Reconnaissance Survey Report, Nikolau Vineyards: 432 Dutch Henry Canyon Road, Napa County, California (Exhibit B).
- Applied Civil Engineering, Submittal October 7, 2022, Tree Preservation Area, Nikolau Vineyards, 432 Dutch Henry Canyon Road (Exhibit B-1)
- David Steiner (CPESC + CPSWQ) for Applied Civil Engineering, July 2021, Hydrologic Analysis, Nikolau Vineyards, APN: 018-050-072 (Exhibit C).
- David Steiner (CPESC + CPSWQ) for Applied Civil Engineering, July 2021 (Resubmittal April 2022), Soil Loss Analysis, Nikolau Vineyards, 432 Dutch Henry Canyon Road, APN: 018-050-072 (Exhibit D).
- O'Connor Environmental, Inc., October 2021, Water Availability Analysis, Nikolau Vineyards, 432 Dutch Henry Canyon Road, (APN: 018-050-072), Soda Canyon Area, Napa County, California (Exhibit E).
- William Roop - Archeological Resource Services, February 2022, A Cultural Resource Evaluation of a Potential Vineyard Area Within 432 Dutch Henry Canyon Road, Napa County, California.
- Notice of Emergency Timber Operations (Exhibit F)
- Applied Civil Engineering, April 2022, Landslide Assessment, Nikolau Vineyards, 432 Dutch Henry Canyon Road (Exhibit G)
- Project Revision Statement, January 26, 2023 (Exhibit H)
- Site inspections conducted by Napa County Planning and Engineering Division staff conducted on March 17, 2022.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A *(SUBSEQUENT)* MITIGATED NEGATIVE DECLARATION will be prepared.

☐ 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.

Dana Morrison — 1/31/2023

Signature — Date

Dana Morrison
Napa County - Planning, Building and Environmental Services Department

		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) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

a-b.

The proposed project would not have a substantial adverse impact on a scenic vista or on scenic resources. The project site is located approximately 1.4 miles from the Silverado Trail, the closest County viewshed road. The vineyard development site is not located on a prominent hillside, a major or minor ridgeline (Napa County GIS, Ridgelines Layer), or within a scenic corridor (Napa County GIS, Scenic Corridors Layer). There are two (2) minor ridgelines approximately 2,065 sf west of the proposed project and approximately 1580 sf southwest. The majority of the parcels in the area are currently developed with agricultural and residential uses, as well as existing open space. Given the existing minor ridgeline, the visibility of the project site from public roads is nonexistent as it is shielded from view by the existing minor ridgelines, topography and vegetation. The highest elevation of the project site would be located approximately 1,252 feet above msl and would be more than 1,500 feet and 2,065 feet below the nearest minor ridgelines. The proposed project would not substantially damage scenic resources, as there are no significant rock outcroppings or historic buildings within the proposed development area. The proposed vineyard development has been designed in a way that would complement the natural contours of the project site. The proposed project is consistent with the Napa County AWOS land use and with surrounding land uses; therefore, the proposed project is anticipated to result in less than significant impacts to the scenic vistas, scenic resources and public views.

c.

The proposed project would not substantially degrade the existing visual character of the site or its surroundings. While the proposed project would remove 2.9 acres of an area designated by County GIS as Douglas fir forest (already removed under an Emergency Timber Harvest Permit (Exhibit F). This area consisted of a combination of standing dead trees consisting of predominantly Douglas fir, the project would avoid a majority of the trees on the parcel, as well as the existing ephemeral drainages and reservoir and their associated setbacks. In 2001, Napa County adopted a Viewshed Protection Ordinance for the purpose of preserving the scenic quality of Napa County. The ordinance provides development guidelines to 1) minimize man-made structures and grading on views of existing landscapes and open spaces as seen from designated public roads within the County; and 2) new hillside development with slope areas greater than 15% that may be within 25 vertical feet of a ridgeline. Silverado Trail, the closest designated scenic public road from the project, is located approximately 1.4 miles southwest of the proposed project, and the grading associated with the project would not be visible from the Silverado Trail due to existing topography, vegetation and development. No structures are proposed as part of this project; therefore, the proposed project would not be subject to the provisions of the Viewshed Protection Ordinance. Less than significant impacts are anticipated.

d.

Proposed agricultural operations on the parcel would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project parcel and in the surrounding area, which includes vineyard and agricultural uses. The proposed project would include nighttime harvesting and applications of sulfur (from 4 a.m. to dawn) occurring approximately 8 nights per year. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime activities. While some nighttime activities may occur for limited periods, the project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses; therefore, resulting 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 FOREST 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 Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
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 Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the development area as Other Land (X). Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, resulting in no impact.

b.

The project site has a General Plan designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 3.4 gross acres (2.5 net vine acres) is consistent with project site's land use and zoning designations. The subject property does not have a Williamson Act contract associated with it. Therefore, the proposed project would not conflict with its land use designation or a Williamson Act contract resulting in no impact.

c.

The subject parcel and project are not zoned forest land as defined in Public Resource Code Section 12220 (g), timberland as defined in Public Resource Code Section 4526, or a Timberland Production Zone (TPZ) as defined in Government Code Section 51104(g); therefore, no impact is anticipated.

d.

The project proposes to remove approximately 2.9-acres of vegetation classified as Douglas Fir forest. "Forest Land" is defined by the state as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one (1) or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resource Code Section 12220(g)). With respect to timberland, the approximate 2.9-acres of Douglas fir forest is presumed to contain commercial timber species; according to California Forest Practice Rules, Title 14, California Code of Regulations, species Group A and those in Group B that are found on lands where the species in Group A now exist of have grown naturally. As stated in the Napa County General Plan, the County has approximately 40,000-acres of land that may contain commercial timber species (Napa County, 2009).

The Napa County General Plan anticipated the conversion of Forest Land, including timberland, to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that between approximately 950 to 5,700 acres of this development would occur on "Forest Land". In the analysis specifically, and in the County's view generally, the conversion of forest land, including potential timberland, to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

While the proposed project would result in the conversion of potential timberland to non-timber use, because the subject property and project area are not located within a TPZ, the project site is not located within the commercial forest land base of California, and that the conversion of approximately 2.9-acres of the property's potential timberland represents a relatively small percentage of the timberland in the County, the proposed project is expected to have a less than significant impact on forest and timberland in the County. Also see the discussion in Section IV (Biological Resources) for additional discussion and disclosure regarding impacts to forest land.

Furthermore, as discussed in Sections IV (Biological Resources), VI (Geology and Soils), VIII (Hazards and Hazardous Materials), IX (Hydrology and Water Quality), and XVIII (Mandatory Findings of Significance) of this Initial Study, project impacts have been analyzed to determine their potential significance, all areas/categories of analysis were found to have a less than significant effect on the environment, and, where necessary, measures have been included to mitigate potentially significant impacts to a less than significant level; see section IV (Biological Resources) Mitigation Measure BR-1 and BR-2. Therefore, the conversion of approximately 2.9-acres of forest land to vineyard is anticipated to result in less than significant impacts to forest and timberland. Furthermore, as indicated in the Background/Project History and Environmental Setting Sections of this initial study, the project parcel was significantly damaged by the Glass Wildfire (2020) and a portion of the burned vegetation has already been removed in 2022 under a Notice of Emergency Timber Operation granted in 2021 (Exhibit F), which does not include a timber restocking requirement, and which has degraded the quality of the sites coniferous forest and timberland.

e.

The proposed project does not include the construction of roadways or other infrastructure that would result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would not have an impact on agricultural or forest resources of Napa County.

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

Discussion

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

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

The thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not

generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts.

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

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts: CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022[1]. The proposed thresholds to evaluate GHG and climate impacts from land use projects are qualitative; therefore, there is no bright-line (quantitative) level to mitigate below a threshold of significance. Projects that decline to integrate qualitative design elements can alternatively demonstrate consistency with a local Greenhouse Gas (GHG) Reduction Strategy that meets the criteria of the State CEQA Guidelines section 15183.5(b).

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

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

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

The potential impacts associated with implementation and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with guidance provided by BAAQMD (2017). These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O_3), ozone precursors oxides of nitrogen and reactive organic gases (NO_x and ROG), carbon monoxide (CO), nitrogen dioxide (NO_2), and suspended PM of ten micrometers or less and two and a half micrometers or less (PM_{10} and $PM_{2.5}$).

The thresholds of significance for use in determining whether a proposed project will have a significant impact on GHG's and climate change (BAAQMD, April 2022) did not affect the Air Quality CEQA Thresholds of Significance for the above mentioned air pollutants (i.e. ROG, NO_x, PM_{10} and $PM_{2.5}$) identified in Table 2-1 of the BAAQMD 2017 Guidelines. As such, those thresholds will be used to determine the significance of potential air quality impacts associated with air pollutant emissions. These air pollutant thresholds of significance are identified in Table 4 below.

BAAQMD has not officially recommended the use of its thresholds in CEQA analyses, and CEQA ultimately gives lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other

[1] Microsoft Word - FINAL CEQA Thresholds Report for Climate Impacts 03_30_22 revisions with tracked changes (baaqmd.gov): https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en

factual data. BAAQMD also states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAQMD provides as a reference for determining appropriate thresholds is the BAAQMD CEQA Guidelines described above, which outline substantial evidence supporting a variety of thresholds of significance.

In order to assess potential air quality and GHG emissions, a review of the emissions analysis associated with vineyard development/construction and operations performed for three (3) certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards[2] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[3] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[4] for an approximately 400-acre vineyard development[5].

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

Table 4 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Also shown in Table 4 are the BAAQMD CEQA Guidelines draft thresholds of significance for emission of the following criteria pollutants: ROG, NO_x, PM_{10}, and $PM_{2.5}$.

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

Table 4 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO_x	$PM_{2.5}$	PM_{10}
	Construction Emissions			
Pounds per day: 150-acre vineyard development[1]	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to14.53
Pounds per day: 150- to 250-acre vineyard development[2]	9.43 to11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development[3, 4]	4.6	42.3	5.21[4]	24.21[4]
Construction threshold	54	54	54	82
	Operational Emissions			
Pounds per day: 400-acre vineyard operation[1]	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard operation[2]	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard operation[3]	4.3	22.3	1.4	2.3
Operational threshold (lbs/day)	54	54	54	82
Tons per year (Metric)[1,5]	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

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

Because the proposed project's 3.4 gross acre vineyard (approximately 2.5 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less that those identified in Table 4 and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project.

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

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

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

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

Air Quality – Conditions of Approval:

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

1. 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.
2. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two (2) times per day.
3. Cover all haul trucks transporting soil, sand, or other loose material offsite.
4. 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.
5. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
6. Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
7. 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.
8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[6] or the PERP website[7].

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in Table 4, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in Table 4 during both installation and operation (see Section XVII [Transportation] for anticipated project trips). Therefore, implementation of the proposed project would result in less than significant air quality impacts, and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

c-d.

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

Land uses adjacent to the project site include rural residences, wineries, livestock grazing and vineyards. The project site consists of approximately 60.0 acres of land with 3.1 acres of developed areas, including one (1) residence, a garage, shed, pool, reservoir, well, access road and landscaped areas. The closest schools are Palisades High and Calistoga Junior/Senior High, which are located approximately 2.9 miles and 3 miles west of the project site in the City of Calistoga (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 885 feet to the west, and approximately 1,300 feet to the south. The closest residential area (Calistoga) is approximately 2.1 miles west of the project site.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur more than two (2) miles from the closest school and over two (2) miles from the closest residential neighborhood, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, resulting in a less than significant impact.

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

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

	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 US 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 were utilized in this analysis and are incorporated herein by reference and available in the project file for review.

- WRA, Inc., February 2022, Biological Resources Reconnaissance Survey Report, 432 Dutch Henry Canyon Road, Napa County, California (APN: 018-050-072) (Exhibit B).
- Applied Civil Engineering, Submittal October 7, 2022, Tree Preservation Area, Nikolau Vineyards, 432 Dutch Henry Canyon Road (Exhibit B-1)

Additionally, the following Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project site was compiled based on data in the CNDDB (CDFW, 2021a), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2021a), and the USFWS List of Federal Endangered and Threatened Species (USFWS, 2021b) that may be affected by projects in the Saint Helena, Chiles Valley, Lake Berryessa, Rutherford, Yountville, Capell Valley, Sonoma, Napa and Mount George USGS 7.5 minute quadrangles.

WRA conducted assessments of biological resources on the project site on May 2018, as well as March, April and June of 2021. As noted in report the study area did not cover the entire 60.0 acre parcel (57.6 acres according to WRA, but 60.0 according to county GIS records), the study area for the assessment was performed within the location of the proposed vineyard block and surrounding area (totaling 35.0 acres). The surveys were completed to determine: the presence of sensitive biological communities; the potential for biological communities on site to support special-status plant or wildlife species; and the presence of sensitive natural resources protected by local, state, or federal laws and regulations. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales.

The WRA assessment of the study area determined that the parcel consists of the following vegetation communities (land cover types): developed (3.1-acre; includes residence, garage, shed/barn, pool, landscaping, and paved areas including paved driveway), Douglas fir forest (42.8-acres), non-native annual grassland (3.8-acres), chamise chaparral (0.5-acres), pacific madrone forest (3.2-acres), foothill pine woodland

(0.8-acres), and a reservoir as well as ephemeral streams. The project area (vineyard and clearing limits) have been intentionally sited to avoid all aquatic resources and reduce potential impact to forest/woodland habitat.

Based on the Biological Resources Reconnaissance Survey Report (WRA 2022 – Exhibit B), land cover types (or biological communities) occurring within the property can be found in Table 4.

Table 4 –Land Cover Types/Biological Community Removal and Retention

Land Cover Type or Biological Community	Acreage within Parcel (Pre-Project)	Acreage Removed	Percent Removed	Percent Remaining	Post-Project Acreage
Developed Area	3.1	0.3	9.7%	90.3%	2.8
Douglas-fir forest	42.8	2.9	6.8%	93.2%	39.9
Non-native Annual Grassland	3.8	0.3	7.9%	92.1%	3.5
Chamise Chaparral	0.5	0.0	0.0%	100%	0.5
Pacific Madrone forest	3.2	0.0	0.0%	100%	3.2
Foothill Pine Woodland	0.8	0.0	0.0%	100%	0.8
Aquatic Resources	5.8	0	0.0%	100%	5.8

Sources: WRA September 2022

1.

Special Status Plants

Of the 108 special-status plants species documented from the greater vicinity, the project biologist found that 37 of these plant species have the potential to occur within the project area. Of the 37 plant species, which the Biological Assessments noted could occur within the Study Area, two (2) were found to be occurring: Napa lomatium (*Lomatium repostum*) and green monardella (*Monardella viridis*). However, both of these identified species are entirely confined to the chamise chaparral community and, as such, are located outside of the proposed vineyard development area.

The remaining 35 special-status species were not observed during the protocol-level rare plant surveys conducted in April and May 2018: Franciscan onion (*Allium peninsulare* var. *franciscanum*); Napa false indigo (*Amorpha californica* var. *napensis*); Twig-like snapdragon (*Antirrhinum virga*); Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*); Rincon manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*); Brewer's milk-vetch (*Astragalus breweri*); Clara Hunt's milk-vetch (*Astragalus claranus*); Big-scale balsamroot (*Balsamorhiza macrolepis*); CRPR 1B Narrow-anthered Brodiaea (*Brodiaea leptandra*); Brewer's calandrinia (*Calandrinia breweri*); Large-flowered mariposa lily (*Calochortus uniflorus*); Rincon Ridge ceanothus (*Ceanothus confusus*); Calistoga ceanothus (*Ceanothus divergens*); Point Reyes ceanothus (*Ceanothus gloriosus* var. *exaltatus*); Holly-leaved ceanothus (*Ceanothus purpureus*); Sonoma ceanothus (*Ceanothus sonomensis*); Mountain lady's-slipper (*Cypripedium montanum*); Streamside daisy (*Erigeron biolettii*); Greene's narrow-leaved daisy (*Erigeron greenei*); St. Helena fawn lily (*Erythronium helenae*); Nodding harmonia (*Harmonia nutans*); Sharsmith's western flax (*Hesperolinon sharsmithiae*); Bristly leptosiphon (*Leptosiphon acicularis*); Jepson's leptosiphon (*Leptosiphon jepsonii*); Broad-lobed leptosiphon (*Leptosiphon latisectus*); Redwood lily (*Lilium rubescens*); Hoover's lomatium (*Lomatium hooveri*); Cobb Mountain lupine (*Lupinus sericatus*); Lobb's aquatic buttercup (*Ranunculus lobbii*); Victor's gooseberry (*Ribes victoris*); Sanford's arrowhead (*Sagittaria sanfordii*); Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*); Slender-leaved pondweed (*Stuckenia filiformis* ssp. *alpina*); Dark-mouthed Triteleia (*Triteleia lugens*); and Oval-leaved viburnum (*Viburnum ellipticum*).

The chamise chaparral, and to a lesser extent, the forest and woodland within the property are considered potential special-status species habitat because they contain the biological and ecological characteristics necessary to support special-status plant species populations and individuals. The project property contains 0.5 acres of chamise chaparral, with none occurring within the proposed development area.

The proposed project would not result in the removal of special-status plant species or their habitat, and would be consistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-2[8] because it would assist in maintaining the existing level of biodiversity in the County, as well as contribute to minimization of potential

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

cumulative impacts associated with the loss of special-status plant species and associated habitat due to agricultural conversion projects; Goal CON-3[9] as it would protect the continued presence of special-status plant species or habitat; Policy CON-13[10] in that impacts to special-status habitat would be avoided; Policy CON-17[11] because the removal and disturbance of a sensitive natural plant community that contains special-status plant species would be prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it would preserve natural habitat or existing vegetation, and would not adversely affects sensitive, rare, threatened or endangered plants.

Special-Status Wildlife

Of the 58 special-status wildlife species that have been documented in the greater vicinity, one (1) was observed within the Study Area, and six (6) additional species have potential to occur. Two (2) adult Western pond turtles (*Emys marmarota*) were observed within the existing onsite reservoir during site visits in March and June of 2021. Additionally, as noted in the WRA study, the following species have the potential to occur within the parcel: pallid bat (*Antrozous pallidus*), fringed myotis (*myotis thysanodes*), long-legged myotis (*Myotis volans*), olive-sided flycatcher (*Contopus cooperi*), white-tailed kite (*Elanus leucurus*), purple martin (*Pronge subis*), and finally the northern spotted owl which is noted as unlikely to occur and was not observed.

Western Pond Turtle: The western pond turtle is the only freshwater turtle native to most of California. This species is highly aquatic, typically inhabiting perennial waters including lakes, ponds/reservoirs, rivers, streams, and canals that provide submerged cover and suitable exposed basking structures such as rocks, logs and mats of emergent vegetation. Nesting usually occurs in spring to early summer, with eggs hatching in the fall; nests are excavated in upland areas with friable soil, usually on unshaded slopes within approximately 300 feet of water. Hatchlings require shallow water with relatively dense emergent and aquatic vegetation to provide forage, usually aquatic invertebrates. [Exhibit B].

Pallid bat (*Antrozous pallidus*): The pallid bat is widely distributed throughout western North America, and occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas. Trees within the Study Area (conifers and oaks) may contain cavities or snags suitable for roosting by this species, and there are CNDDB occurrences in the vicinity. A targeted bat habitat assessment was not performed under this biological assessment. [Exhibit B].

Fringed myotis (Myotis thysanodes): The fringed myotis ranges throughout much of western North America. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree roosting has also been documented in Oregon, New Mexico, and California. Trees within the Study Area may contain cavities or exfoliating bark suitable for roosting. A targeted bat habitat assessment was not performed under this biological assessment. [Exhibit B].

Long-legged myotis (*Myotis volans*): The long-legged myotis ranges across western North America from southeastern Alaska to Baja California and east to the Great Plains. This species is usually found in coniferous forests, but also occurs seasonally in riparian areas and deserts. Preferred roost sites include abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark, and hollows within snags as summer day roosts. Caves and mines are used as hibernation roosts. Foraging occurs in and around the forest canopy and feed on moths and other soft-bodies insects. Trees within the Study Area may contain snags and hollows suitable for roosting. A targeted bat habitat assessment was not performed under this biological assessment. [Exhibit B].

Olive-sided flycatcher (*Contopus cooperi*): The olive-sided flycatcher is a summer resident in California, wintering in Latin America. It breeds in a variety of forested habitats, typically coniferous forests at higher elevations, but also in mixed forest and woodlands at lower elevations. Breeding habitat is often associated with forest openings and edges, both natural (e.g., meadows, canyons) and man-made (e.g., logged areas). Nests are usually in conifers, and placed at variable height on the outer portions of branches. This species forages for

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

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

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

insects, usually from prominent tree snags. The Study Area provide coniferous forest with tall snags and hard edges (e.g., clearings), and is suitable for nesting. [Exhibit B].

White-tailed kite (*Elanus leucurus*): Whitetailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The Study Area provides suitable year-round habitat for white-tailed kites, including stands of oaks for nesting and open areas in close proximity for foraging. This species was not observed; however, a bird survey was not performed during this assessment. [Exhibit B].

Purple martin (*Progne subis*): The purple martin is an uncommon summer resident in California, breeding in forest and woodlands at low to mid- elevations throughout much of the state. Nesting occurs primarily in tree cavities; trees selected are usually taller or isolated, with low canopy cover at the nest height, and situated on the upper portions of slopes and/or near bodies of water where large aerial insects (favored prey) are abundant. Conifers are the most frequently used tree type in northern California. Man-made structures with suitable cavities such as bridges or utility poles are also used. Taller tree snags within the Study Area ostensibly provide suitable nesting substrates for this species; there are two (2) documented nesting occurrences in CNDDB within 0.8 mile of the Project Areas. [Exhibit B].

Northern Spotted Owl (*Strix occidentalis caurina*): The NSO is the resident spotted owl subspecies found in cool temperate forests in the coastal portion of California, from Marin County northward. Typical habitats consist of old-growth or otherwise mature coniferous forest and mixed coniferous-hardwood forest; younger (second-growth) forest with stands of large/mature trees may also be occupied. The Study Area is unlikely to be occupied by NSO. According to CDFW's Spotted Owl Database, the nearest documented nesting occurrence is located greater than 3.8 miles to the south (across Napa Valley), and the nearest activity center otherwise greater than 3.1 miles to the northeast. While forested predominantly with conifers, the Study Area lacks a dense, structurally-complex canopy in comparison to occupied forest stands in the greater vicinity, and impacts from the Glass Fire further reduced the suitability of the site. No NSO were observed during the visits and the study determined that the species was unlikely to occur [Exhibit B].

Regarding pond turtles, because this species was observed in the onsite reservoir the project has been specifically designed to avoid the reservoir and its immediate shoreline (including basking substrates), thereby reducing the risk of harm to adult pond turtles. However, ground disturbance within the proposed vineyard block has the potential to impact turtle nests in the substrate, and also adult turtles and/hatchlings moving to/from the reservoir to upland areas and as such a mitigation measure is proposed.. With implementation of Mitigation Measure BR-1, the proposed project would result in less than significant impacts on western pond turtles.

Mitigation Measure BR-1: The Permittee shall include in #P22-00044-ECP-Exemption the following measures to minimize impacts of the proposed project on western pond turtles:

1. A targeted preconstruction survey for western pond turtle shall be completed between 7 days and 24 hours of the start of construction. Surveys shall take place between 9 a.m. and 3 p.m. and be conducted in areas that western pond turtle are likely to inhabit and focus on detection of basking and foraging turtles. Surveyors shall station in place for periods of 30 minutes in each area that is suitable for western pond turtle and use binoculars to visually detect and identify western pond turtle.
2. If a western pond turtle is detected, the following measures shall be implemented:
    i. A worker environmental awareness program that describes western pond turtle, its habitat affinities and its protections shall be given to project personnel prior to commencement of ground disturbing activities.
    ii. If any western pond turtle are observed in the work area, the western pond turtle shall be avoided and work shall stop within 50 feet of the western pond turtle and shall not resume until the western pond turtle moves from the work area.
    iii. If ground disturbing activities are to occur during the western pond turtle nesting season, between May 15 and July 15, an exclusion fence shall be installed around the work area to prevent western pond turtle from entering the work area. The design and installation of the fence shall be verified by a qualified biologist.
    iv. If work stoppage occurs for more than five (5) consecutive days, work shall cease and the owner/permittee shall contact a qualified biologist to determine further steps.

Regarding special-status bird species, the parcel provides suitable year-round habitat for white-tailed kites and long-eared owls, including stands of oaks for nesting and open areas in close proximity for foraging, and for grasshopper sparrows, which prefer to nest in moderately open grasslands with patchy bare ground. Neither white-tailed kites, grasshopper sparrows, nor long-eared owls were observed during the biological assessment; however, a targeted bird survey was not performed. In addition to these special-status bird species, a variety of non-status bird species with baseline protections under the Migratory Bird Treaty Act and California Fish and Game Code may use vegetation within the project areas for nesting.

Removal of any remaining or recovered vegetation, post-fire, could result in potentially significant direct, indirect and cumulative impacts on special-status and migratory birds through removal of shelter and foraging habitat, and indirect construction-related disturbance (e.g., noise) to nesting birds. Implementation of Mitigation Measure BR-2 would reduce potential impacts on special-status and migratory birds by requiring that a qualified biologist conduct a preconstruction survey, followed by preparation of avoidance measures and exclusion buffers prior to project initiation. With implementation of Mitigation Measure BR-2, the proposed project would result in less than significant impacts on special-status bird species.

Mitigation Measure BR-2: The Permittee shall include in #P22-00044-ECP-Exemption the following measures to minimize impacts associated with the loss and disturbance of nesting birds and raptors consistent with and pursuant Fish and Game Code Sections 3503 and 3503.5 and the California Endangered Species Act found in Fish and Game Code Section 2050 et seq.:

1. For earth-disturbing activities occurring between February 1 and August 31, (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with potential to occur at the project site) shall conduct preconstruction surveys for nesting birds and raptors within all suitable habitat in the project area, and within a minimum of 500 feet of all project areas. The preconstruction survey shall be conducted no earlier than 7 days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 7 days from the survey date, surveys shall be repeated. A copy of the survey results shall be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
2. After commencement of work, if there is a period of no work activity of 5 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
3. In the event that nesting birds are found, a qualified biologist shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
4. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist. Additionally, a qualified biologist shall monitor all active nests each day during construction for the first week, and weekly thereafter, to ensure that the exclusion buffers are adequate and that construction activities are not causing nest-disturbance. If the qualified biologist observes birds displaying potential nest-disturbance behavior, the qualified biologist shall cease all work in the vicinity of the nest and CDFW shall be consulted about appropriate avoidance and minimization measures for nesting birds prior to construction activities resuming. In this event, construction activities shall not resume without CDFW's written approval.
5. Alternative methods aimed at flushing out nesting birds prior to pre-construction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) shall be prohibited.

b-c.

There are no mapped blue-line streams located on the project parcel. Dutch Henry Creek is located within 1,500 feet of the proposed vineyard block development but is not located within 1,500 feet of the project well. There are no identified riparian habitats, sensitive natural communities, or vernal pools located within the project site property or project area (WRA April 2019).

There is one (1) primary intermittent (or ephemeral) stream located in the project parcel. This drainage is in-line with the man-made reservoir (see below). The flow is ephemeral, only running during and immediately following substantial precipitation. There is no distinctly riparian vegetation associated with these moderate-gradient and narrow channeled intermittent streams. The project site and parcel ultimately drain to Dutch Henry Creek, located approximately 1,500 feet east of the project site, which flows southerly for 1.4 miles before merging with Biter Creek. Biter Creek eventually joins the Napa River, which then drains into the San Pablo Bay. There is also an existing man-made reservoir located on the parcel.

The proposed project has been designed to include minimum 35-foot stream setbacks from the ephemeral/intermittent streams and drainage swales/channels on the subject property, in conformance with County Code Section 18.108.025 (General provisions – Intermittent/perennial streams). Therefore, the project has been designed to provide setbacks from aquatic features (i.e. ephemeral streams and ponds) creek setbacks consistent with code requirements. Furthermore, project approval, if granted, would be subject to the following standard conditions to prevent the potential encroachment into stream and wetland setbacks required pursuant to Section 18.108.025 and Section 18.108.026, further protecting these aquatic resources during project implementation and operation resulting in a less than significant impact.

Stream Protection – Standard Condition of Approval: The applicant/owner shall implement the following condition to prevent the inadvertent encroachment into specified stream setbacks during construction and subsequent vineyard operations:

1. The location of ephemeral stream and reservoir setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion

d. The project areas are not within a designated wildlife corridor, or within a mapped "Essential Connectivity Area" (CDFW and Caltrans, 2010). Wildlife nursery sites were not identified in the project site; therefore no impacts would occur in this regard.

The project parcel does not contain existing deer fencing, and the proposed project does propose to enclose the new vineyard block with deer fencing. The fence shall run along the edge of the vineyard avenues and encircle the vineyard block. The new fencing was intentionally sited away the existing reservoir and ephemeral drainages and maintains a 35' setback from these resources. There are no designated migratory corridors within the project area, nor wildlife nursery sites; therefore, no impacts would result from project implementation.

While the proposed fencing would not result in significant impacts to wildlife movement and use, in order to ensure that wildlife exclusion fencing is installed in a manner that is consistent with CDFW recommendations to minimize impacts to wildlife movement, habitat use and availability, and vegetation removal the following condition of approval would be incorporated should the proposed project be approved.

Fencing – Condition of Approval: The owner/permittee shall revise Erosion Control Plan #P22-00044-ECP-Exemption prior to its approval to include wildlife exclusion fencing detail that shall include the following components:

1. New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
2. Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
3. Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P22-00044-ECP-Exemption required by this condition shall be strictly prohibited, and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.

e.

The parcel consists of the following vegetation communities (land cover types): developed (3.1-acre; includes residence, garage, shed/barn, pool, landscaping, and paved areas including paved driveway), Douglas fir forest (42.8-acres), non-native annual grassland (3.8-acres), chamise chaparral (0.5-acres), pacific madrone forest (3.2-acres), foothill pine woodland (0.8-acres), and a reservoir as well as ephemeral stream (Exhibit B). The project would convert approximately 2.9-acres of Douglas fir forest, approximately 0.3-acres of non-native grassland, and 0.3-acres of ruderal land/vegetation (developed) (Table 4). The 2020 Glass Fire burned a large portion of the project parcel. A total of 95 trees were removed as part of an Emergency Timber Harvest Permit issued by Cal Fire in August 2021, see Exhibit F. (Exhibit B).

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

The project as proposed does include a mechanism for permanent preservation as required by NCC Section 18.108.020.E and to meet the newly required not net increase in greenhouse gas emissions; therefore, the project, as proposed is consistent with NCC Section 18.108.020(E). The project proposes to permanently preserve approximately 2.9 acres of existing woodland (Exhibit B-2). Implementation of the proposed Permanent Preservation - Condition of Approval requires that the vegetation canopy cover area be recorded in a deed restriction or conservation easement to permanently restrict development from the areas indicated in the Vegetation Canopy Cover Preservation Area consistent with Section 18.108.020.E. With implementation of this Condition of approval, the project will be consistent.

Permanent Preservation – Condition of Approval: The Owner/Permittee shall record a permanent preservation area as detailed in Exhibit B-1 to achieve consistency with the NCC Section s 18.108.020.E:

1. A Vegetation Canopy Cover Preservation Area (consistent 18.108.020(E) 2.9 acres of vegetation canopy cover, located outside of the boundaries of the existing and proposed developed area shall be designated as such in a deed restriction or conservation easement or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including, but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The Owner/Permittee shall record the deed restriction or conservation easement prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property, protects special-status species; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 50%). The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.

2. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P22-00044-ECP-Exemption shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval, that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three (3) years to ensure an 80 percent survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

f.

There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other similar plans applicable to the project site. Therefore, no impact would occur.

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

Discussion

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

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Archeological sensitive areas and Archeological sites layers: William Roop of Archeological Resource Services (ARS), February 2022, Cultural Resource Evaluation of Potential Vineyard within 432 Dutch Henry Canyon Road.

ARS conducted an archeological evaluation of the project site which included a check of information on file with the California Historical Resources Information System Northwest Information Center to determine presence or absence of previously recorded historic or prehistoric cultural resources; a check of relevant historic references to determine the potential for historic era archaeological deposits or structures; and a

surface reconnaissance survey of the all accessible parts of the approximately 3.4 acre project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a-c.

The cultural resource reconnaissance report (ARS, 2022) noted that no indications of the presence of a potentially significant cultural resource were observed. The report identified that there are no soil changes, rock alignments, non-native stone, historic era artifacts, or other indications of an archaeological deposit or site. The soils of the site are not alluvial, and are not likely to mask or cover buried cultural resources. It was noted that the entire project area has undergone significant modification during previous building projects. The report did indicated the presence of large amounts of obsidian within a specific soil body. However, it was determined that this specific soil body is not native to the site and was brought in result as fill material in the relatively recent past. The report concludes that this is not an indication of Native American use.

Furthermore, project approval, if granted, would be subject to the standard conditions identified below to protect cultural resources that may be discovered accidently. Therefore, with incorporation of the condition of approval, below, the proposed project would result in less than significant impacts to historic or archaeological resources.

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

1. 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 (RPA) and a Yocha Dehe Wintun Nation Tribal Cultural Monitor have had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.
2. 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.
3. 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 (6) months. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient compared with other similar agricultural construction sites within Napa County.

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

b.

The transportation sector is a major end-user of energy in California, accounting for approximately 39 percent of total statewide energy consumption in 2014 (U.S. Energy Information Administration 2016). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million vehicles consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in Napa County in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 - https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan).

With respect to transportation energy, existing energy standards are promulgated through the regulation of fuel refineries and products such as the Low Carbon Fuel Standard (LCFS), which mandates 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 USEPA and the California ARB such as Pavley II/LEV III from California's Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) GHG Regulation. Further, construction sites will need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five (5) minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation[13]. The proposed project would comply with these State requirements; see the Air Quality conditions of approval. Napa County has not implemented an energy action plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets, and impacts would be less than significant.

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

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

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 less than significant impact would occur. Additional information supporting this conclusion is identified below.

i) There is one (1) potentially active fault that is located 2.3 miles west of the project parcel, which runs in a north-south direction (Napa County GIS faults and earthquakes layers). The Napa GIS database indicates the potential presence of landslides in the vicinity of the property, however, the project Engineer reviewed the California Geologic Service web-based landslide inventory and the identified feature was a landslide deposit of historic nature. As such, given the onsite soil conditions and shallow bedrock depths historical landslide features should not affect the proposed project (Exhibit G). Therefore, no impact would occur.

ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological Society, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.

iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.

iv) As noted earlier, the Napa GIS database indicates the potential presence of landslides in the vicinity of the property, however, the project Engineer reviewed the California Geologic Service web-based landslide inventory and the identified feature was a landslide deposit of historic nature. As such, given the onsite soil conditions and shallow bedrock depths historical landslide features should not affect the proposed project (Exhibit G). Therefore, no impact would occur.

b.

Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 2014, USDA 1978, and USDA 1972) as forward silt loam with 12-57% slopes, and rock outcrop-kidd complex with 50-75% slopes (Exhibit B).

Installation and implementation of the ECP would involve vegetation removal and earthmoving activities within the proposed vineyard areas. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through a no-till cover crop with vegetative cover densities of at least 80%. 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 Applied Civil Engineering (Exhibit D), the proposed project is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (Table 6). Under existing conditions, the annual soil loss is anticipated to average 40.67 tons per acre per year across the development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 10.23 tons per acre per year, or a reduction of approximately 75% as compared to existing conditions.

Table 6 – USLE Soil Loss Analysis

Vineyard Block Transect	Proposed Development Acres	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
1	0.8	12.29	3.2	-9.09	-74%
2	1.6	19.78	5.04	-14.74	- 75%
3	0.5	3.99	0.72	-3.27	-82%
4	0.4	4.61	1.27	-3.34	-72.5%
Total	3.3	40.67	10.23	-30.44	-75%

Source: Applied Civil Engineering, Revised April 2022, Exhibit D

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the proposed project, *including soil loss experienced during vineyard and cover crop establishment, consist of permanent no-till cover, straw mulching, straw wattles, and other practices as needed.*

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

c.

As discussed above, the project site is not located in an area prone to landslides, ground failure or liquefaction. The proposed project identifies the soil types in the project site and addresses any potential soil instability. Therefore, impacts from offsite landslides, lateral spreading, subsidence, liquefaction or collapse would be less than significant.

d.

Soils on the project site have been classified as forward silt loam with 12-57% slopes, and rock outcrop-kidd complex with 50-75% slopes In addition, 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 vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.

f.

There are no 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 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:

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).[12] The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in Center for Biological Diversity v. Department of Fish & Wildlife (2015) *62 Cal. 4th 204). There is no proposed construction-related climate impact threshold at this time. Greenhouse gas (GHG) emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions.

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

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

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

necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

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

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

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

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

a-b.

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

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

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

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

are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (http://ncasi2.org/COLE/faq.html).[13]

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

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

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

Construction Emissions:

Equipment Emissions: As discussed in Section III (Air Quality), three (3) County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.[14] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 3.4 gross acres of new vineyard development would be approximately 31.96 MT CO_{2e} (3.4 acres multiplied by 9.4 MT CO_{2e}).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 3.4 acres of existing developed area, non-native grassland and Douglas-Fir vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the Greenhouse Gas Emissions Checklist and associated carbon stock factors developed as part of the 2012 CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the project site, total carbon stocks for the project site are estimated to be approximately 276.49 MT C or approximately 1,014.27 MT CO_{2e} (Table 7).

Table 7 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Storage/Stock per Acre (MT C/acre)[1]	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Ruderal/Developed[15]	0.3	1.4	0.42	1.54
Non-Native Grassland	0.2	1.4	0.28	1.03
Douglas-Fir Forest	2.9	95.1	275.79	1,012.15
Total			276.49	1,014.27

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

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20-25% while others have suggested 50%.[16] Using 50% as a more conservative estimate, the proposed project

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

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

[15] For the purpose of these GHG calculations the carbon stock associated with Grassland is applied to Ruderal/Developed lands.

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

could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 955.08 MT CO_{2e} (Table 8).

Table 8 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Loss/Emission per Acre (MT C/acre)	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO2e
Ruderal/Developed	0.3	0.8	0.24	0.88
Non-Native Grassland	0.2	0.8	0.16	0.59
Douglas-Fir Forest	2.9	89.6	259.84	953.61
Total			260.24	955.08

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

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor it is anticipated that Operational Equipment Emissions associated with the proposed 3.4-acre agricultural development would be approximately 2.28 MT CO_{2e} (3.4 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that coniferous forest sequesters 0.666 CO_2 acre per year, while grasslands, shrublands and developed are essentially zero. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 1.96 MT C per year or 7.19 MT CO_{2e} per year.[17]

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

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 987.04 MT CO2e and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 9.47 MT CO_{2e} per year (Table 9).

Table 9 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of $C0_{2e}$		Annual Ongoing Emissions in Metric Tons of $C0_{2e}$	
Source	Quantity	Source	Quantity
Vehicles and Equipment	31.96	Vehicles and Equipment	2.28
Vegetation and Soil	955.08	Loss of Sequestration	7.19
Total	987.04	Total	9.47

Source: Napa County Conservation Division, March 2022

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 671.37 MT CO_{2e} by considering the size of the proposed vineyard in relation to projected vineyard development in the County. The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008) projected 12,500 acres of new vineyard development in the County between 2005 and 2030. The County concluded in the General Plan EIR that emissions from all sources over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Because this determination was based on emissions from all sources, not just agriculture, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts.

Pursuant to Section 15183(a) of the California Code of Regulation, projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-

[17] 0.5 acres of grasslands/developed lands times 0.057 MT C = 0.029 MT C, and 2.9 acres Douglas-fir forest times 0.666 MT C = 1.93 MT C, totaling 1.96 MT C

specific effects which are peculiar to the proposed project or its site. Further, the BAAQMD update to the thresholds of significance do not include construction-related climate impact thresholds (April 2022). GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions, and the updated thresholds for land use projects were designed to address operational GHG emissions, which represent the vast majority of project GHG emissions.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.027% of the vineyard development anticipated in the General Plan EIR. The proposed project also contains measures to reduce and/or offset emissions from vineyard development and vineyard operations such as maintaining a permanent no-till cover crop density of a minimum 85%, vegetated vineyard avenues, and the maintenance and establishment of grape vines. These measures, in conjunction with the Air Quality conditions of approval (detailed in Section III [Air Quality]), would further reduce potential GHG air quality impacts associated with construction and ongoing operation of the proposed project. For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a "considerable" contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 9.47 MT CO_{2e} per year. As stated above, the updated BAAQMD thresholds of significance for land use projects are qualitative, with no "bright-line" (quantitative) level below which to mitigate. Projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal. 4th 204). As stated in Section IV, Biological Resources, the proposed project would result in the removal of approximately 2.9 acres of tree canopy (already removed under an emergency timber harvest notice), and would retain approximately 85% of the tree canopy on the parcel. With implementation of Mitigation Measure BR-2, the project would result in the permanent preservation of approximately 2.9 acres of tree canopy located on developable land (i.e., outside of stream setbacks and on land with slopes less than 30%) pursuant to the 1:1 canopy cover preservation requirements identified by the PBES Department to meet the no net loss in GHG. Therefore, the loss in carbon sequestration from the proposed removal of trees is more than offset after incorporation of Permanent Preservation Condition of Approval, by permanently protecting from development one (1) times the amount of lost carbon sequestration due to tree removal.

Further, as stated above, per the OPR Technical Advisory, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact. As detailed in Section XVII (Transportation), vineyard operations, including pruning and harvest is anticipated to require up to approximately 16 one-way worker trips per day for work crews of approximately 10 workers who are anticipated to carpool. Approximately one (1) additional one-way trip per day are anticipated for grape haul trucks during harvest which is expected to be one (1) to five (5) days. Equipment for vineyard operations is anticipated to include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles. Vineyard operations would result in a maximum of 20 trips per day during peak days (harvest, pruning, weeding, etc.). This is less than the 110 daily trips designated by the Bay Area Air Quality Management District (BAAQMD), whereby projects are considered to have a less than significant impact on transportation GHG levels.

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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 ECP and subsequent vineyard operation and maintenance would require a variety of equipment and vehicles that use fuel and other petroleum-based products such as oil and transmission fluids, which are considered hazardous materials. Ongoing vineyard operations would also involve the transport and use of chemicals such as herbicides, mildewcides, and fertilizers to the site that are considered hazardous materials. Herbicide applicators must be licensed by the state, and the Napa County Agricultural Commissioner enforces application of pesticides and regulates applicators.

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

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

Chemicals for vineyard operation would be stored at an off-site location and mixed onsite at the eastern most portion where Block 2 and Block 3 meet, as indicated on the ECP Plans (Exhibit A). The nearest water source (i.e., reservoir and two [2] ephemeral drainages) on the project site is a minimum of 35' from the proposed vineyard avenues and maintains a 50' setback from the vinerows, more than 50' from staging areas, and more than 100 feet from chemical mixing areas, consistent with NCC Section 18.108.025. Fertilizers would be applied as necessary to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vinerows for weed management. Project storage and staging areas would be located within proposed clearing limits per the ECP Plans and Narrative (Exhibit A and Exhibit A-1).

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) the proposed project would maintain buffers of greater than 50 feet from blue-lines streams (none are located near the proposed project); ii) project staging and storage areas would be a minimum of 100 feet from watercourses; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions 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.

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

1. Workers shall follow manufacturer's recommendations on use, storage and disposal of chemical products.
2. Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
3. During routine maintenance of equipment, properly contain and remove grease and oils.
4. Discarded containers of fuel and other chemicals shall be properly disposed of.
5. Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
6. 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.
7. To prevent the accidental discharge of fuel or other fluids associated with vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

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

c.

The closest schools are Palisades High and Calistoga Junior/Senior High, which are located approximately 2.9 miles and 3 miles west of the project site in the City of Calistoga (Napa County GIS, Schools Layer). There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.

d.

The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). Therefore, no impact would occur.

e.

The closest public airport to the project site is the Angwin-Parrett Field Airport, located approximately 5.2 miles southeast of the project, site, while the Napa County Airport located more than 29.5 miles south. No portion of the proposed project is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.

f.

The proposed project is anticipated to introduce a small number of workers visiting the project site on a temporary basis for ECP and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in a minor increase in the number of people working at the project site. However, given the relatively small size of the proposed project, it is not anticipated that the minor increase would impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

g.

No structures are proposed as part of the project. The project parcel is located in an area identified as having a high and very high; the proposed project development area is located in the very high designated portion and the Glass Fire impacted the parcel in 2020. The parcel is located within the State Responsibility Area (CALFIRE 2007 - https://egis.fire.ca.gov/FHSZ/). The risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and impacts 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

On April 21, 2021, Governor Gavin Newsom declared a drought emergency in the state of California and as of July 8, 2021, 50 counties are under the drought state of emergency, including Napa County. The Governor directed the Department of Water Resources to increase resilience of water supplies during drought conditions. On June 8, 2021, the Napa County Board of Supervisors adopted a resolution declaring a Proclamation of Local Emergency due to drought conditions which are occurring in Napa County. On October 19, 2021, the Governor issued a proclamation extending the drought emergency statewide. The County of Napa has not adopted or implemented any mandatory water use restrictions. In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.

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

The subject parcel is located within both the Maple Lane Area Drainage and the Dutch Henry Creek Drainage, which are both within the Napa River sub-watershed; however, the project site is located solely within the Dutch Henry Creek Watershed. The Napa River is designated as critical habitat for steelhead (Napa County GIS USFWS critical habitat layer). The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the Clean Water Act. Historically, the construction of large dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

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

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five (5) or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan[18]"; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four (four) significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two (2) of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four (4) sediment sources are effectively

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

controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board[19].

a.

Waste discharge is not anticipated as part of the proposed project or ongoing vineyard operations; therefore, the proposed project would not violate waste discharge requirements. The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P22-00044-ECP-Exemption 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 this impact would be less than significant.

b.

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

A Water Availability Analysis (WAA) was prepared in order to determine the increase in water demand as a result of the proposed project (O'Connor Environmental, Inc. [OEI], October, 2021 - Exhibit E). Typically, the annual irrigation season ranges from late May to September; water use for frost protection is not proposed. The WAA estimates the onsite groundwater recharge, overall availability, and existing and proposed use, in order to assess potential impacts on groundwater.

Water demands for the existing uses on the property (residence, accessory structures, pool and landscaping) have historically been provided by groundwater via the existing onsite well; completed to a depth of 240 feet in 1991. The nearest off-site well is located 360 feet to the northeast, in addition there is a shallow well approximately 550 feet south of the project well that is used for agricultural water supply. Due to the proximity of these two (2) wells a Tier 2 analysis (Well and Spring Interference Criterion) was required for this project. Estimate drawdown at both wells were determined to be 0.01-0.21 sf and 0.01 ft, respectively. Given that estimate drawdown at both locations is less than the screening criteria of 10 feet, the drawdown is considered to be less than significant.

Water demands for the existing onsite development (residence, pool and associated accessory structures/landscaping) have historically been and will continue to be met by pumping groundwater from the existing onsite well. The existing demand from the lower well includes water drawn for the residence, pool and landscaping; 0.75 and 0.10 respectively. For a total of 0.85 AF/yr. The future water demands for the new vineyard blocks are proposed to be met using groundwater pumped from the existing onsite well. Vineyard irrigation groundwater demand is anticipated to be 1.25 AF/yr, resulting in a total overall water demand of 2.1 AF/yr.

During the first year of project development (prior to vineyard installation), water would be used irrigate the cover crop; the cover crop would not be irrigated after the first year and irrigation demand would not overlap with irrigation demand for the vineyard (and demand would be less than the volume needed to irrigation the vineyard). Typically, the annual vineyard irrigation season ranges from late May to September. Water use for frost protection is not proposed. After full development, irrigation of the approximately 2.5 net acres of vineyard proposed would result in approximately 2.1 acre-feet per year (AF/year) of groundwater demand (Table 10).

Table 10 – Pre- and Post-Project Property Water Use

Property Water Use	Pre-Project (acre-feet/year)	Post-Project (acre-feet/year)
Residential landscaping + pool	0.85	0.85
Vineyard Irrigation	0.0	1.25
Total	0.85	2.10

Groundwater Recharge: Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the parcel that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the WAA, which uses an average annual rainfall (simulated for water year 2010, when annual precipitation totals across most of the County were close to their long-term 30-year average) of 21.9 inches per year over the approximate 39 acre project parcel (northeaster section of the 60 acre holding) estimates the average annual groundwater recharge of the parcels to be approximately 36.4 AF/year (Exhibit E). As noted, this study did

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

not utilize the 10-year prism data, instead the WAA looked at the 30 year average with 2010 simulating a water year and 2014 simulating a dry year. The rainfall for the 2010 water year used in the WAA was 43.4 inches and for the 2014 Dry Year was 23.8 inches. The parcel recharge estimated for the 2010 water year was 36.4 AF/yr and for the 2014 water year was 12 AF/yr. Total parcel usage with the proposed vineyard is 2.1 AF/yr or 17% of the Dry Year recharge. Compared the 10 year PRISM data the lowest tile covering this property is just over 34 inches per year for the 2012 to 2021 water years. As this is more than the Dry Year analysis presented in the WAA, County staff determined that the WAA adequately analyzed ground water recharge, as the study consider a more conservative scenario.

The estimated annual recharge volume of 36.4 AF/year is greater than the total estimated average annual groundwater demand for the proposed project of 2.10 AF/yr. Estimates of recharge that may occur during a "prolonged drought" (2014 utilized as base dry year) show a total of 12.0 AF of rainfall recharge is estimated. Even under drought condition the proposed water use of 2.10 AF/yr is less than the 12.0 AF recharge estimate. Neighboring parcels within the project recharge area contain two (2) primary residences, one (1) secondary residence, two (2) pools, and approximately 2.1 acres of vineyard. One (1) of these parcel also has a large (approximately 4,000 sf) lawn. Based on these uses, water demand within the project recharge area is approximately 13.75 AF/year. Of this, currently, 0.85 AF/yr is from the project parcel. The remaining 12.90 AF/yr comes from neighboring parcels, primarily vineyard irrigation on APN 018-050-058. The total proposed groundwater use within the project recharge area is estimated to be 15.0 acre-AF/yr. This use is equivalent to 10% of the 147.5 acre-ft of recharge received by the project recharge area during an average water year. A similar comparison can be drawn for the project parcel. Estimated use of 2.1 AF/yr, is 6% of the 36.4 AF/yr of recharge received on the parcel during an average year. Even during dry years, water use within the project recharge area and on the project parcel still only accounts of for a small fraction of annual recharge. Given the surplus of groundwater recharge available, water use associated with the proposed project is highly unlikely to result in reductions in groundwater levels or depletion of groundwater resources over time.

The total proposed water demand resulting from the proposed project would be 2.10 AF/yr, representing a 1.25 AF/yr increase in total groundwater use for the parcel from existing conditions. This is below the 12.0 AF/yr of estimate annual dry year recharge. Proposed project use represents 6% of the mean annual recharge across the project parcel while use across the large recharge area is estimated to be approximately 10% of total recharge.

Considering: i) anticipated annual water use of the project parcel for existing and proposed use of approximately 2.1 AF/year is below the parcel's existing groundwater usage rate of 12.0 AF/yr; and ii) incorporation of the standard water use condition below to monitor water use as a result of vineyard establishment and ongoing vineyard operations and maintenance (if approved), the proposed project is anticipated to result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

> Groundwater Management, Wells – Conditions of Approval: This condition is implemented jointly by the Public Works and PBES Departments:
>
> 1. The owner/permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data shall be provided to the County, if the PBES Director determines that substantial evidence indicates that water usage is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.
>
> 2. In order to support the County's groundwater monitoring program, well monitoring data as discussed above shall be provided to the County if the Director of Public Works determines that such data could be useful in supporting the County's groundwater monitoring program. The project well shall be made available for inclusion in the groundwater monitoring network if the Director of Public Works determines that the well could be useful in supporting the program.
>
> 3. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the ECPA would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the owner/permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Code and to protect public health, safety, and welfare.

c.

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

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include a no-till cover crop with vegetative cover density of at least 85% for the vineyard block and

the annual application of straw mulch cover on all disturbed areas at a rate of 3,000 pounds per acre. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to Exhibits A, C and D for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include straw wattles and mulching. Straw wattles would be placed on contour at various locations around the perimeter of the vineyard blocks and within vineyard avenues to slow and maintain surface/sheet flow. Straw wattles are spaced according to the USLE to maintain soil losses below the tolerable levels for the soil types found on the site and to ensure (in conjunction with the cover crop and other runoff control features) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the project. The design and location of straw wattles would have a negligible effect on existing drainage patterns in that they would not alter the existing topographic contours of the site. Erosion control features would maintain soil losses below the tolerable levels for the soil types found on the site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the proposed project. The erosion control features would not alter the existing topographic contours of the site.

A Hydrologic Analysis for the proposed project was prepared by the David Steiner (CPESC, CPSWQ) for Applied Civil Engineering, July 2021 - Exhibit C). The knoll-top topography of this small site drains to three (3) separate drainages, each of which is large enough (relative to its portion within the proposed vineyard) to buffer or mask the project's potential runoff increases from the drainage basin as a whole. For this reason the, the analysis exclude those area outside the proposed vineyard site, comparing pre- and post- project Runoff Curve Number within the proposed vineyards. This comparison uses Runoff Curbe Numbers function of USDA Technical Release 55 (WinTR55). The Hydrologic Analysis utilizing WinTR 55 concluded that there would be no change in peak flow for all watersheds in the development. The Hydrologic Analysis also concluded that the runoff time of concentration, which is the time it takes for runoff to flow from the upper most point in each watershed to the watershed's outlet, is anticipated to remain the same as existing conditions.

General Plan Conservation Element Policy CON-50c states that peak runoff following development cannot be greater than predevelopment conditions. As demonstrated above, the proposed project would not increase runoff flow rates, and, therefore, is consistent with Policy CON-50c. 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, 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 increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less than significant impact.

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three (3) years to ensure that the implemented erosion control plan is functioning properly[20]. Furthermore, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan will be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three (3) years to ensure that the implemented erosion control plan is functioning properly.

d.

The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). Therefore, no impact would occur.

e.

The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in Section IX (Hazards and Hazardous Materials), the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in Sections IV (Biological Resources) and IX (Hazards and Hazardous Materials), buffers provided in the ECP adjacent to 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 effect on or offsite

[20] Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted.

water resources. Because the proposed project as designed is not expected to increase runoff rates or 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 not anticipated to change the existing soil loss and sedimentation and would have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECP includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

Water Quality – Condition of Approval:

1. 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, water courses, 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 ECPX approval.

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

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

Discussion

a.

The proposed site is in a rural area of Napa County and the nearest established community, Calistoga, is approximately 2.1 miles west of the project site. Therefore, the proposed vineyard and subsequent vineyard operations would not physically divide an established community and no impact would occur.

b.

Surrounding land uses include rural residences, vineyard, and open space. Surrounding parcels are zoned Agricultural Watershed (AW) and designated Agriculture, Watershed and Open Space (AWOS) in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The proposed project is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. Biological Resources Reconnaissance Survey was prepared for the proposed project. The proposed project as proposed would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the project site. With implementation of Mitigation Measures BR-1 Mitigation and Measures BR-2, potential impacts to special-status birds and wester pond turtles would be avoided. Furthermore, implementation of this measure would not affect the feasibility of the proposed project in that, impacts to special-status species and their habitat can be avoided while allowing for agriculture to be developed and operated on the project site.
- The project site does not contain existing wetlands and would retain mature trees located upslope from the ephemeral stream located on the parcel. As a result, 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.
- As proposed, the project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey was prepared for the proposed project (Exhibit B).
- The proposed project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. The project as proposed does include the installation of additional deer fencing to enclose the new proposed vineyard blocks. However, the proposed fencing is approximately 35' feet away from the existing reservoir and ephemeral drainage and includes a Standard Condition of Approval regarding style, size and design of said fence, thereby allowing for wildlife movement along the drainage and through the property.
- The project as proposed 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 would reduce soil loss, potential sedimentation and 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 to be no greater than pre-project conditions. As discussed in Section VII (Geology and Soils) and Section X (Hydrology and Water Quality), with incorporation of the Permanent Erosion and Runoff Control Measures condition of approval, the proposed project would reduce soil loss and sedimentation, and result in no change to runoff.
- The project as proposed 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 project as proposed 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 project as proposed is consistent with General Plan land use designation of Agriculturel, Watershed and Open Space (AWOS), and is therefore consistent with Policy AG/LU-20.

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

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

Discussion

a-b.

The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map,

December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is located approximate 27.5 miles to the southeast of the project site. Proposed site improvements and development of vineyard on the parcel would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a-b.

The project site is located in a rural setting where surrounding parcels are generally undeveloped, planted with vineyards and contain wineries. The closest offsite residences are located approximately 885 feet to the west, and approximately 1,300 feet to the south. Additionally, adjacent proprieties and properties in the immediate area contain vineyard.

Activities associated with installation of the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. Table 11 characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in Table 11, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 11 – Construction Equipment Noise Emission Levels

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

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

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

Table 12 – Estimated Distance to dBA Contours from Construction Activities [1]

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

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

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

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, Version 1, November 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. Table 13 characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 13 – Estimated Distance to dBA Contours from Farming Activities [1]

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

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

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

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less than significant impact on ambient noise levels of the area.

During site preparation and vineyard installation, the use of heavy equipment could result in a temporary increase in ambient noise levels in the vicinity of the project site as described above. Compliance with measures identified in the County's noise ordinance for construction-related noise, such as a limitation of hours of construction activity and muffling of equipment, would result in temporary less than significant noise and vibration impacts, and would result in no permanent increase in ambient noise levels in the vicinity of the proposed project in excess of County standards.

c.

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

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

Discussion

a.

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

b.

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

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

Discussion

a.

The proposed project does not include the construction of residential or commercial structures, as discussed in Section XIV (Population and Housing), resulting in no substantial population growth in the area. It is anticipated that these temporary employees 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. Therefore, 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?	☐	☐	☐	☒

Discussion

a-b.

Currently, the project site is developed with existing dirt and paved roads, a single-family residence, garage, barn/shed, pool, well, utilities, reservoir and associated residential landscaping.

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

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

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

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

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

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

Construction of the proposed project is expected to generate approximately 50 one-way worker trips per day, for work crews of two (2) to three (3) people (who are anticipated to carpool). Approximately two (2) additional one-way trips are anticipated for project mobilization and demobilization for equipment materials delivery and pick up. Construction equipment is anticipated to include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles. Vineyard operations, including pruning and harvest is anticipated to require up to approximately twenty (20) one-way worker trips per day for work crews of ten (10) people (who are anticipated to carpool) during peak operational periods; less during standard operational periods. Approximately two (2) to ten (10) additional one-way trips per day is anticipated for a grape haul truck during harvest which is expected to be one (1) to five (5) days. Anticipated equipment for vineyard operations is anticipated to include a tractor/trailer, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles, and ATVs. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

As indicated above, the TIS Guidelines provide a screening criterion that could be used to determine whether a VMT analysis is warranted for small projects, which are defined as projects that would generate fewer than 110 trips per day and may generally be assumed to cause less-than-significant transportation impacts. As indicated above, construction of the proposed project would generate up to approximately 50 one-way worker trips per day, with an additional two (2) one-way trips for mobilization and demobilization. Harvest would generate up to approximately 20 one-way worker trips, and two one-way truck trips per day (resulting in up to 22 round trips per day) for approximately one (1) to five (5) days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 20 one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day. Additionally, daily trips associated with the project would be temporary and seasonal in nature, further supporting conformance and observance of this screening criterion.

The project site is accessed from an existing private road/driveway which is accessed off of Silverado Trail. Trucks and other equipment would use County roads or State highways for very short periods during construction and subsequent vineyard operation.

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

c.

The project proposes to utilize the existing paved private road, which connects to Silverado Trail, for project development (Figures 1-3). The proposed project does not include roadway improvements and/or modifications to said existing roadways, 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 property and other Agricultural Watershed and Agricultural Preserve zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation, substantial increase in hazards or hazards due to a geometric design feature and 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.

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

Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Discussion

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on December 20, 2021. On February 4, 2022, the County received a response letter from Yocha Dehe Wintun Nation, indicating that the project site is not within the aboriginal territories of the Yocha Dehe Wintun Nation, and declined to comment. The Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria did not request consultation within the 30-day notification period, and because no response to the consultation invitation was received, the consultation time period elapsed.

a-b.

As discussed in Section V (Cultural Resources), the proposed project's Cultural Resource Reconnaissance did not identify any historical or archaeological resources within the project area, although the probability of encountering cultural resources was determined to be high. Therefore, the proposed project would result in less than significant impacts to Tribal Cultural Resources, including those that may be eligible for the CHRIS 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 employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the property on an ongoing basis. It is anticipated that these employees 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 one (1) existing groundwater well would provide irrigation water to the vineyard.

Irrigation pipelines would be located within existing roadways, vineyards and vineyard avenues, and/or within proposed clearing limits. The proposed project would include the installation of a limited number of onsite storm water drainage features such as straw wattles and a permanent no-till vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage system is described in Sections IV (Biological Resources), VII (Geology and Soils), and X (Hydrology and Water Quality). As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources) and IX (Hazards and Hazardous Materials), would result in a less than significant impact.

b.

The approximately 3.4 gross acres of vineyard (approximately 2.5 net acres) would be irrigated by groundwater supplied by the existing onsite well. The WAA conducted by O'Connor Environmental Inc., (Exhibit E) concluded that after full development, water use for the project parcel is estimated to be approximately 2.10 AF/yr, an increase from the existing water demand of 0.85 AF/yr. The water demand of 2.1 AF/yr is below the 12 AF/yr of estimated annual recharge (the conservative dry year recharge estimate). Therefore the proposed project, in conjunction with the existing uses, is anticipated to have a less than significant impact on water supplies. Also, see Section X (Hydrology and Water Quality) for additional disclosures and analysis.

c.

Given the small number of employees that the proposed project would generate for construction and operation, wastewater generation by the proposed project would not be substantial enough to affect wastewater treatment capacity. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.

d-e.

Minimal rock is expected to be generated by vineyard development. All temporary debris, vegetation, soil and soil amendment stockpiles and storage areas, if needed, will be located within the proposed vineyard development area and clearing limits. A small area below the proposed vineyard block has been identified for permanent disposal of stumps and rocks, and is included in the overall project area statistics. Rock generated as a result of site preparation will be disposed of within the development footprint by being buried in the vineyard roads or will be placed in the permanent stump and rock disposal area. Rock may also be processed and used for lining existing roads within the vineyard development. Temporary rock stockpiles and staging areas would be located inside of proposed clearing limits. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, end posts, etc.) would be negligible. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of by being chipped and disposed of onsite. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, State, and local statues and regulations. Therefore, no impact would occur.

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

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

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as a High and Very High Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). General topography of the parcel is gently to moderately sloped with all aspects represented, and elevations ranging from 947 to 1665 feet above mean sea level (msl), within the eastern hills of Napa Valley.

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.

b-c.

Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary due to the short duration of construction (approximately six [6] months). The proposed project does not include any infrastructure that would exacerbate fire risk. 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, the proposed project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would be a decrease in peak flow in the development area (see Section X [Hydrology and Water Quality]). The onsite residence closest to the proposed vineyard is located on relatively flat terrain. Therefore, there are no structures or people that would be exposed to downslope or downstream flooding or landslides and the impact would be less than significant.

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

Discussion

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

a.

As discussed in this Initial Study, implementation of #P22-00044-ECP-Exemption, 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.

The currently no existing deer fence on the parcel. The project is proposing to install new deer fencing, that will encircle the proposed vineyard block. The new deer fencing location maintain the minimum 35' setback requirement from the reservoir and ephemeral stream; there are no existing streams on site, as such, the project will not impact wildlife movement along existing riparian corridors. The potential impacts associated with the removal of potential nesting habitat for birds, as well as potential indirect impacts would be reduced through implantation of Mitigation Measures BR-1 and Mitigation Measure BR-2. With implementation of the cultural resources conditions of approval to protect cultural resources that may be discovered accidently, significant impacts to cultural resources are not expected (Section V [Cultural Resources]). Therefore, the proposed project as designed with the incorporation of mitigation measures, the proposed vineyard development project would have a less than significant potential to degrade the quality of the environment.

b.

The subject parcel is located within the Maple Lane Area Drainage and the Dutch Henry Creek Drainage; however the proposed project site is located solely within the Dutch Henry Creek Drainage.

The Dutch Henry Creek Drainage contains approximately 2,570 acres. In 1993, vineyard acreage within this drainage was approximately 125 acres, or approximately 5% of the drainage. Since 1993, approximately 78 acres of additional vineyard (or 3% of the drainage) have been developed (or approved) to vineyard, resulting in approximately 8% of the drainage (approximately 202 acres) containing vineyard. It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Dutch Henry Creek Drainage, that there are approximately 227 acres (8.8% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 202-acres), this results in a total potential build out of approximately 429 acres or approximately 17% of the drainage. The PPS 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 quantify precisely the acreage and location of additional vineyard development that may be proposed by property owners in this drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount of reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the environment (i.e., Dutch Henry Creek Drainage) over the last 29 years (1993-2022) were used to project an estimation of vineyard development for the next three (3) to five (5) years. Over the past 29 years within the Dutch Henry Creek Drainage, approximately 6.9-acres of agriculture were developed per year (202 divided by 29).

Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 20.7 to 34.5-acres over the next three (3) to five (5) years within the Dutch Henry Creek Drainage is considered a reasonable estimate. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), setbacks of 50 feet from wetlands, and retention of 70% of a property's cover canopy, and General Plan Conservation Policy CON 24c that requires the retention of oak woodland at a 2:1 ratio, all of which limit the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three (3) to five (5) years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VIII:

The proposed project (#P22-00044-ECP-Exemption) includes the conversion of what would have been a post-fire Douglas-fir forest to a vineyard; no actual tree removal is proposed as the existing area was cleared of trees under an Emergency Timber Harvest Permit. The project, involving the installation of vineyard and erosion control measures concurrent with other projects in the air basin have the potential to generate emissions of criteria pollutants, including suspended particulate matter (PM) and equipment exhaust emissions. For construction-related dust impacts the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in Section III (Air Quality) and shown in Table 3 (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the

proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one (1) of the gases that contribute to climate change (Tables 5 and 6). As discussed in Section VIII (Greenhouse Gas Emissions), the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Additionally, the project proposes to create a permanent preserve of approximately 2.9 acres of existing woodland to help meet the new BAAQMD no net increase in greenhouse gas emissions requirements.

Biological Resources - Section IV:

There were 95 trees removed under a CalFire approved Emergency Timber Harvest Permit, an additional four (4) trees (located nearest the residence and at the very western edge of the vineyard block) are proposed for removal as part of the project. The trees removed were identified as Douglas-fir forest; blue oak and coast live oak woodlands, and coniferous forest are not considered sensitive by CDFW or included as sensitive in the NCBDR. The majority of the existing onsite forest/woodland (46.5 acres – 94%) is being preserved on the parcel, additionally approximately 2.9 acres are proposed to be permanently preserved under an easement. As noted in the project description the project is utilizing the Section 17 exemption and is therefore not subject the new 18.108 conservation regulations. A Condition of Approval has been included to require the recordation of a permanent preservation easement of the 2.9 acres of identified woodland to achieve consistency with the new no net loss in GHG sequestration capability requirements. Therefore, the proposed vineyard ECP, if approved, will comply with applicable County Code vegetation canopy cover retention requirements.

A project specific Biological Resources Reconnaissance Survey was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the proposed project. The reconnaissance survey included a records search to identify the presence or potential presence of special-status species within the project area. The records search included the USFWS, CNDDB, and CNPS databases. As discussed in Section IV (Biological Resources), no special-status plants were identified on the project site. Three (3) special-status bird species were identified as having the potential to occur on the project site. Potential impacts associated with the removal of potential nesting habitat for birds and western pond turtles would be reduced through implementation of Mitigation Measures BR-1 and Mitigation Measure BR-2. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII:

No potential cultural resources were identified in the project site (i.e., a structural debris and depression). With the incorporation of the cultural resources condition of approval to ensure protection of cultural and tribal cultural resources that may be discovered accidently, significant impacts to cultural and tribal cultural resources are not expected (see Section V [Cultural Resources] and Section XVII [Tribal Cultural Resources]). Therefore, with the incorporation of the identified conditions of approval, the proposed vineyard development project would have a less than significant project-specific and cumulative impact on cultural and tribal cultural resources.

Geology and Soils - Section VII:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 30.44 tons/year as compared to existing conditions (Table 5). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions the proposed project is not anticipated to contribute cumulatively to sediment production within the Dutch Henry Creek Watershed; therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

Because geologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA, the County's General Plan Goals and Policies, in particular General Plan Conservation Element Policy CON-48 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.

Hydrology and Water Quality - Section X:

As discussed in Section X (Hydrology and Water Quality), the total proposed water demand resulting from the proposed project would be 2.1 AF/yr, representing a 1.25 AF/yr increase in total groundwater use for the parcel from existing conditions. This is below the 36.4 AF/yr of estimate annual recharge for the project parcel.

As discussed in Section X (Hydrology and Water Quality) a Hydrologic Analysis utilizing the TR-20 Runoff Model has been prepared by David Steiner (CPESC, CPSWQ) (July 31, 2021 - Exhibit C). Because the proposed project does not include diversions, create concentrated flows or otherwise alter site drainage patterns, and does not materially alter site slopes no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions (Exhibit C), 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 that 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 be designed so that peak runoff following development is not greater than predevelopment conditions, it is not unreasonable to anticipate that those projects would also have a less than significant project specific and cumulative impact on hydrologic conditions.

Land Use and Planning - Section XI:

As discussed in Section XI (Land Use and Planning), the proposed project, with implementation of the mitigation measures and conditions of approval identified in this Initial Study, achieves compliance with applicable NCC requirements and General Plan Goals and Policies (also see Section VIII [Greenhouse Gas Emissions]).

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, Hazards and Hazardous Materials, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Nighttime activities are not proposed, therefore no impacts would result from lighting. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project does not conflict with any current zoning for agricultural or forestry use, nor does the proposed project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. 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, the proposed project would not adversely impact current or future public services, or require the need for utilities and service systems. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

Considering the project site's characteristics, surrounding environment, and the scope and scale of the proposed project, the proposed project with incorporation of identified mitigation measures and conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with this 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 property, and reasonably foreseeable projects would be activities at a level of intensity considered normal and reasonable for a property within Agricultural Watershed zoning district. Therefore, less than significant impacts on human beings are anticipated.

LIST OF FIGURES:

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