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

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

1. **Project Title**: Three Twins LLC Erosion Control Plan Application (ECPA) #P18-00435-ECPA

2. **Property Owner:** Richard Talmadge

3. **County Contact Person, Phone Number and email:** Pamela Arifian, Planner II, (707) 259-5934, pamela.arifian@countyofnapa.org

4. **Project Location and APN:** 704 Greenfield Road, St. Helena, CA 94574, APN: 025-380-017 (**Figures 1** and **2**)
   Section 26, Township 08 North, Range 5 West,
   Longitude 38°30'41"N, Latitude 122°23'18"W

5. **Project sponsor:** Three Twins LLC
   Attn: Richard Talmadge
   22 Bisbee Lane
   Bedford Hills, NY 10507

   Agent: James R. Bushey (Registered Professional Engineer No. 49931)
   PPI Engineering
   2800 Jefferson Street
   Napa, CA 94558

6. **General Plan description:** Agricultural, Watershed and Open Space (AWOS)

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

8. **Background / Project History:** The parcel includes a single family residence, garage, pool, tennis court and accessory structures, two 10,500-gallon water storage tanks, and 5.4 gross acres of existing vineyard covered by Agricultural Erosion Control Plan #P05-0121-ECPA (approved August 18, 2005). The project site is currently being grazed.

   Because the original submittal (dated April 16, 2018) contained the requisite application materials required by the County ECPA Application Checklist at that time the application was determined to be 'substantially conforming' and a 'qualified permit application' pursuant to the recently enacted Water Quality and Tree Protection Ordinance (WQTPO) (Ordinance #1438), that became effective May 9, 2019. Therefore, continued processing and review of this application will not be subject to the County Conservations Regulations (NCC Chapter 18.108) as amended by the WQTPO: this application is subject to the County Conservations Regulations that were in effect prior to May 2019.

9. **Description of Project:**

   The project involves the clearing of brush and trees within the proposed clearing limits, earthmoving, and the installation and maintenance of erosion control measures in connection with the development of 1.7 net acres of new vineyard within 2.5 gross acres on the 22.96 acre parcel (**Figure 2**). Typical slopes within the project area range from 10-23%, with approximately 0.2 acres on slopes over 30%. The project would include the removal of 1.37 acres of non-riparian blue oak woodland (approximately 60 trees, including 21 coast live oak and 39 blue oak) measuring 6 inches or greater diameter at breast height (dbh). The project proposes to retain 87% of the tree canopy and 47% of the brush and open (grass) cover that existed on the property in 1993. Rock generated as a result of site preparation

may be crushed and used on the existing roads; rock not used immediately will be stockpiled for future use inside the proposed clearing limits, in stockpiles that are expected to be less than 20 feet in height. Temporary rock stockpiles and staging areas would be located inside of proposed clearing limits. No grading activities, ground disturbance or rock storage 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 and/or within the proposed clearing limits. The entire parcel is enclosed by deer fence, and no additional fencing is proposed.

Erosion Control Measures: Temporary erosion control measures include water bars, straw wattles and application of straw mulch at a rate of 3,000 lbs per acre prior to September 15 of the year of construction. Permanent erosion control measures include installation of water bars and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80%. Details of the proposed erosion control measures are provided in the Three Twins LLC ECP #P18-00435-ECPA, revised date April 2019, prepared by James Bushey (Registered Professional Engineer No. 49931) of PPI Engineering, Napa, California (Exhibit A).

Earthmoving: Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation including, but are not limited to vegetation and tree removal, soil ripping (maximum depth of 4 feet) blasting, rock removal, disking, and the development or erosion control measures.

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

a. Installation of vineyard trellis and drip irrigation systems, and planting rootsock on a 4 foot by 6 foot spacing pattern. In areas where the cross-slope exceeds 15%, the row spacing shall be increased as needed to ensure there is adequate room for equipment. Width of tillage equipment would be no more than 75% of row width to allow for bench formation and to minimize erosion.
b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
c. Ongoing operation and maintenance of the vineyard, which includes: vine management (pruning, fertilization, pest, and disease control, and frost protection), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. Herbicide used to control weeds within the vineyard would be limited to contact or systemic herbicides applied within 12-inch wide spray strips in the spring (no earlier than February 15th to ensure adequate vegetative cover in the spray strips for the remainder of the rainy season)..
d. Improvements to the existing dirt access road to the project site from the gravel driveway, including installation of two water bars.
e. **Environmental Commitments** – the Owner/Applicant, as part of this ECPA, has included the following project components to minimize the impacts to the surrounding environment[1]:
    i. Bird Protection (all species, including non-special-status): Implementation of the following protection measures i) tree and vegetation removal would be conducted, if feasible, outside of general bird nesting season (September 1 through January 31; ii) pre-construction surveys for work conducted between February 1 and August 31; iii) implementation of no disturbance buffer from active nests if identified; and, iv) maintaining the no disturbance buffer until nestlings have fledged.
    ii. Bat Protection: Implementation of the following protection measures: i) removal and trimming of trees would be performed, if feasible, from September through March, outside of the general bat maternity season; ii) pre-construction bat habitat and presence surveys prior to the commencement of tree removal activities; and, iii) if detected, roost trees would be avoided until the end of maternitiy season; and iv) all felled trees would remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow bats to escape. The felling of the large snag with a large cavity located on the eastern portion of the project area that has potential to support roosting bats shall follow a phased cut system.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P18-00435-ECPA and Table 2 outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P18-00435-ECPA.

Table 1 – Implementation Schedule

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

[1] During the winter months (September 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

[1] The complete language of the ECPA Environmental Commitments can be found in Section IV (Biological Resources) of this Initial Study and in Exhibit A.

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.

Implementation of the proposed project would be in accordance with the Three Twins, LLC ECPA prepared by PPI Engineering (April 2019 - Exhibit A). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES).

10. **Describe the environmental setting and surrounding land uses.**

The proposed project would occur on a single parcel totaling approximately 22.96 acres located at 704 Greenfield Road, located approximately 4.4 miles east of the City of St. Helena. General topography of the area consists of rolling foothills on the eastern edge of the Napa Valley and the Howell Mountains. Development on the project parcel includes the following structures and infrastructure associated with the parcel's existing residential and agricultural uses: single-family residence, groundwater wells and associated infrastructure including two 10,500-gallon water storage tanks and supply/delivery lines; driveway and access roads; associated accessory structures including a pump house, generator, tennis court, pool and associated residential landscaping (developed area, including residential landscaping, encompasses approximately 2.43 acres), and approximately 5.4 acres of existing vineyard (±3.9 net planted acres) developed under approved Agricultural Erosion Control Plan #P05-0121 (**Exhibits A** and **G**). An existing gravel driveway provides access to the project area and existing vineyards from Greenfield Road, and an existing dirt road provides the primary access point to the proposed vineyard block.

The project site is located within the Lake Hennessey Drainage, that is within the larger Lake Hennessey sensitive domestic water supply drainage. There are no mapped blue-line streams located on the project parcel. An ephemeral stream runs from north/northwest to south/southeast outside of the eastern edge of the project boundary. Surrounding land uses consist predominantly of rural residences and vineyards, as well as undeveloped land consisting of mixed oak woodland and grassland. The nearest wineries are Aonair Winery (approximately 600 feet west of project site) and Buehler Winery (approx. 2100 feet east of the project site). The nearest known schools (St. Helena Elementary and St. Helena High) are 6.4 miles and 5.3 miles, respectively, to the west of the project parcel in the City of St. Helena (Napa County GIS: Schools Layer). The nearest residence is located approximately 300 feet (±0.05 miles) to the west of the project parcel. The Lake Hennessey Recreation Area is located approximately 0.5 miles to the south, and Moore Creek Park approximately 0.5 miles to the northeast.

General topography of the surrounding area and the project site consists of rolling southeastern facing hill sides, peaks, ridgelines, and valleys on the eastern edge of the Napa Valley and Howell Mountains. Elevations within the project site range from approximately 500 to 650 feet above mean sea level.

Vegetation types of the area generally consist of oak woodland, riparian oak woodland, grassland and shrubland (Napa County GIS Vegetation layer). The dominant land cover types in the parcel include hardscape, landscape, oak woodland and managed (mown) grassland. Vegetation types occurring within the project parcel consist of approximately 8.41 acres of blue oak woodland, 2.3 acres of coast live oak woodland, 4.96 acres of wild oat grassland, 0.05 acres of seasonal wetland (perennial rye-grass field) and 7.83 acres of developed area. Existing vegetation on the project site includes 1.1 acres of non-native annual grassland and 1.37 acres of non-riparian blue oak woodland (WRA, August 2018 – **Exhibit B-1**).

No potentially active faults have been mapped in the project site, and the project area is not located on an active fault, and is not within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The nearest known faults to the project site is approximately 0.44 miles to the northeast and 0.76 miles south of the project area (Napa County GIS: Faults and Earthquake Layers). Landslides, landslide deposits, and areas of instability have not been identified within the project parcel or immediately adjacent areas (Napa County GIS: Landslide Polygon and Landslide Lines layers).

11. **Other agencies whose approval is required** (e.g., permits, financing approval, or participation agreement).

Responsible (R) and Trustee (T) Agencies	Other Agencies Contacted
California Department of Fish and Wildlife (CDFW) (T)	The Mishewal Wappo Tribe of Alexander Valley
Regional Water Quality Control Board (Regional Water Board) (R)	The Yocha Dehe Wintun Nation
	The Middletown Rancheria

12. **Tribal Cultural Resources.** Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resource, procedures regarding confidentiality, etc.?

Notice of the proposed project was sent to the Yocha Dehe Wintun Nation, the Middletown Rancheria, and the Mishewal Wappo Tribe of Alexander Valley on March 16, 2020. On April 6, 2020, the County received a response letter from the Yacha Dehe Wintun Nation, indicating that the project area is not within their aboriginal territory, and therefore declined to make any comments on the project. On April 8, 2020, the County received correspondence from the Middletown Rancheria, stating that, although the project area is within the aboriginal territories of the Middletown Rancheria, they are comfortable with the project moving forward, under the mutual understanding that the Tribe shall be contacted should there be any significant inadvertent discoveries. They requested that, should any new information or evidence of human habitation be found as this project progresses, or an expansion of ground disturbing activities, all work shall cease and that the Tribe be contacted immediately. On April 16, 2020, the County received the original notice that was returned to sender unclaimed by the Mishewal Wappo Tribe; the County sent a second notification via certified mail on May 13, 2020.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

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 #P18-00435-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559:

- PPI Engineering, April 8, 2019, Erosion Control Plan, Three Twins LLC Vineyard (orig. submittal October 28, 2018) (**Exhibit A**)
- WRA Environmental Consultants, August 2018, Biological Resources Reconnaissance Survey Report, 704 Greenfield Road, Napa County, California (APN:025-380-017) (**Exhibit B-1**)
- WRA Environmental Consultants, February 13, 2019, Response to Comments (Biology), Three Twins Vineyard Agricultural Erosion Control Plan Application #P18-00435-ECPA; 704 Greenfield Road (APN: 025-380-017) (**Exhibit B-2**).
- Flaherty Cultural Resources Services, June 27, 2017, Cultural Resource Reconnaissance of Approximately 23 Acres near Rutherford, Napa County, California (Three Twins, APN 025-380-017) (**Exhibit C**)
- PPI Engineering, November 9, 2018, Soil Loss Analysis, Three Twins Vineyard Track I ECP, APN 025-380-017 (**Exhibit D**).
- PPI Engineering, October 29, 2018, Hydrologic Analysis, Three Twins Vineyard ECP – APN: 025-380-017 (**Exhibit E**).
- O'Connor Environmental, Inc., December 3, 2018, Water Demand and Water Availability Analysis, Three Twins Vineyard 704 Greenfield Road, Ste. Helena, California 94558 (**Exhibit F**).
- Agricultural Erosion Control Plan #P05-0121 (**Exhibit G**)
- Site inspections conducted by Napa County Planning Division staff on March 27, 2019 and March 9, 2020.
- 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.

Signature

10/21/2020
Date

Pamela Arifian
Planner II
Napa County Planning, Building and Environmental Services Department

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

Discussion:

a-b) The project is located over 8000' from the nearest viewshed road, Chiles Pope Valley Road, near the intersection of Silverado Trail, which is also a viewshed road (Napa County GIS, Viewshed Roads Layer). Existing woodlands, vineyards and Lake Hennessey would screen the proposed project from the viewshed roads. The site is not located next to a prominent hillside or a major hillside, and the nearest minor ridgelines are located more than 4,000 feet away (Napa County GIS, Ridgelines Layer). There are no significant rock outcroppings or geologic features on the project parcel that would be impacted by the project. Although trees would be removed with the proposed project (see Biological Resources Section), the project would blend with surrounding land uses and is not visible from a scenic highway or roadway, as previously noted. Therefore, the proposed project would have a less than significant impact on scenic vistas, scenic roadway, buildings, scenic trees or rock outcrops.

c) The proposed project would result in the removal of existing vegetation within the proposed development area and the development of vineyard. The proposed project is consistent with the Napa County AWOS land use designation and with adjacent land uses, which include other vineyards. Therefore, the proposed project would not substantially degrade the existing visual character or quality of public views of the site or its surroundings, resulting in a less than significant impact.

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 applications of sulfur and herbicide (from 9 p.m. to 4 a.m.) occurring approximately twelve 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.

II.	AGRICULTURE AND FOREST RESOURCES.[2] Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of	☐	☐	☐	☒

[2] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008

	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 Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion:

a) The Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the proposed project site as Grazing Land; there are no areas of Prime Farmland mapped in the project parcel. There is approximately 4.5 acres and 3 acres of Unique Farmland and Farmland of Statewide Importance, respectively, mapped on the project parcel. While those areas are not within the project boundaries, the existing dirt access road, through which irrigation pipe would be installed, travels through both mapped Unique Farmland and Farmland of Statewide Importance. However, the improvements would be made within the existing disturbed land; therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, resulting in no impact. Vineyard development on areas designated Grazing Lands would be consistent with this designation and would not result in an impact to farmland within Napa County.

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 and operation of vineyard totaling approximately 2.47-acres (gross) is consistent with property's land use and zoning designations. The subject property does not have a Williamson Act contract associated with it. Therefore, the project would not conflict with its land use designation or a Williamson Act contract resulting in no impact.

c) The subject parcel and project area 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 1.37 acres of vegetation classified as non-riparian blue oak woodland. The project proposes the removal of approximately 60 trees, including coast live oak and blue oak, neither of which is a timberland species; therefore, no impact is anticipated. Furthermore, as discussed in Section IV (Biological Resources) implementation of **Mitigation Measure BR-1** would result in the avoidance of approximately 36 of these trees covering approximately 0.3-acres.

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 is anticipated to have a less than significant impact on agricultural or forest resources of Napa County.

General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

III.	AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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 disclosure and impact assessment.

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These guidelines were updated in May 2017 to address the California Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Ca 4th 369. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA, and were posted on the BAAQMD website and included in the BAAQMD updated CEQA Guidelines (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 may inform environmental review for development projects in the Bay Area, but do not commit local governments or BAAQMD to any specific course of regulatory action.

BAAQMD published a new version of the CEQA Guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion. The May 2017 CEQA Guidelines update does not address outdated references, links, analytical methodologies, or other technical information that may be in the Guidelines or Thresholds Justification Report. BAAQMD is currently working to revise any outdated information in the Guidelines as part of its update to the CEQA Guidelines and thresholds of significance.

a-b) The project site is located in the foothills bordering the northeastern end of the Napa Valley approximately 4.4 miles east of the City of St. Helena, which is within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, and vehicular haul and worker trips. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. Refer to Section XVII (Transportation) for the anticipated number of construction- and operation-related trips.

The impacts associated with implementation of the project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O3), ozone precursors oxides of nitrogen and reactive organic gases (NOx and ROG), carbon monoxide (CO), nitrogen dioxide (NO2), and suspended particulate matter of ten micrometers or less and two and a half micrometers or less (PM10 and PM2.5). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO2), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

BAAQMD has not officially recommended the use of its thresholds in CEQA analyses and CEQA ultimately gives lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other factual data. BAAQMD also states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAQMD provides as a reference for determining appropriate thresholds is the Guidelines described above. These Guidelines outline substantial evidence supporting a variety of thresholds of significance.

The thresholds of significance identified in Table 3 are consistent with the BAAQMD 2017 CEQA Air Quality Guidelines, and are used to determine if an air quality impact would be significant. In order to assess potential air quality and GHG emissions, a review was completed of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County: Suscol Mountain Vineyards[3] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[4] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[5] for an approximately 400-acre vineyard development.[6]

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

Table 3 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Also shown in Table 3 are the BAAQMD CEQA Guidelines draft thresholds of significance for emission of the following criteria pollutants: ROG, NOx, PM10, and PM2.5.

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

Table 3 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO_x	$PM_{2.5}$	PM_{10}
	Construction Emissions			
Pounds per day: 150-acre vineyard development[1]	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 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

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

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 this project's proposed approximate 2.47-acre vineyard 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 3,** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality condition described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-1 of the 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, should the proposed project be approved.

Air Quality – Conditions of Approval: The owner/permittee shall implement the following air quality BMPs during construction activities and vineyard maintenance and operations:

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[7] or the PERP website.[8]

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 3**, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in **Table 3** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less than significant air quality impacts, and it 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 in the vicinity of project parcel include rural residential, agriculture (primarily vineyard), and undeveloped lands. The project parcel contains approximately 22.96 acres of land and is developed with one residence, approximately 3.9 net-acres of existing vineyard, and associated accessory structures and infrastructure. There are scattered rural residential and agricultural (vineyard) uses located in the vicinity of the proposed project; the nearest residences are located approximately 0.05 miles (±300 feet) to the north and south. The closest residential community that may contain schools, hospitals and/or convalescent homes, is the City of St. Helena, which is located approximately 4.4 miles to the west, and the nearest known schools (St. Helena Elementary and St. Helena High) are 6.4 miles and 5.3 miles, respectively, to the west of the project parcel in the City of St. Helena (Napa County GIS: Parcels and Schools Layer).

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

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

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 5 miles from the closest school and more than 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.

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

Discussion:

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

- WRA Environmental Consultants, August 2018, Biological Resources Reconnaissance Survey Report (**Exhibit B-1**).
- WRA Environmental Consultants, February 2019, Response to Comments (Biology) (**Exhibit B-2**).

Additionally, the following Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resource 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.

WRA conducted an initial assessment of biological resources on the subject parcel 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 surveys correspond to blooming periods sufficient

to observe and identify special-status plant species determined to have the potential to occur in the project area. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines (CNPS, 2001; CDFW, 2018; USFWS, 1996). Plants were identified using Baldwin et al. (2012) and Jepson Flora Project (Jepson eFlora, 2018) to the taxonomic level necessary to determine whether they were rare. The wildlife surveys were conducted concurrently with the rare plant surveys.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project area was compiled based on data in the CNDDB (CDFW, 2018), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2018), focuse on the Detwert Reservoir, Aetna Springs, Walter Springs, Calistoga, Saint Helena, Chiles Valley, Kenwood, Rutherford, and Yountville USGS 7.5 minute quadrangles.

Following the initial assessment, a qualified botanist traversed the entire Study Area and Project Area on foot to document: (1) biological communities (2) existing conditions and to determine if such suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic natural communities (e.g., wetlands) are present, and (4) if special-status species are present.

The parcel consists of the following biological communities (or Land Cover Types) with respective acreages shown in **Table 4:** blue oak woodland, riparian blue oak woodland, coast live oak woodland, riparian coast live oak woodland, wild oats grassland (California annual grasslands), seasonal wetland, and developed.

Table 4 – Biological Communities/Land Cover Types on the Project Parcel

Biological Communities/Land Cover Type	Pre-Project Conditions (acres)
Blue Oak Riparian	1.23
Blue Oak Woodland	7.18
Coast Live Oak Riparian	0.33
Coastline Oak Woodland	1.97
Developed	7.83
Non-Native Annual Grassland	4.96
Seasonal Wetland	0.05

Source: WRA, August 2018 and February 2019

a) Special-Status Plants: The project biologist has indicated that the following twelve special-status plant species have a potential to occur within the project area: *Allium* peninsulare var. *franciscanum* (Franciscan onion); *Amorpha californica* var. *napensis* (Napa false indigo); *Amsinckia lunaris* (bent-flowered fiddleneck); *Brodiaea leptandra* (narrow-anthered brodiaea); *Fritillaria liliacea* (fragrant fritillary); *Leptosiphon acicularis* (bristly leptosiphon); *Leptosiphon jepsonii* (Jepson's leptosiphon); *Leptosiphon latisectus* (broad-lobed leptosiphon); *Lessingia hololeuca* (woolly-headed Lessingia); *Limnanthes vinculans* (Sebastopol meadowfoam); *Trichostema ruygtii* (Napa blue curls); and *Viburnum ellipticum* (oval-leaved viburnum). Preferred habitats (such as hydrologic conditions, serpentinite soils, vegetation/habitat associates) for many of the special status plant species known to occur within the vicinity of the subject parcel are not present within the project area. Additionally, no special status plant species were observed on the project site during the time-appropriate surveys were conducted by WRA, which is an indicator that potentially suitable habitat for these species is not likely present within the project area. Therefore, no impacts to special-status plant species or their habitat are expected.

Pursuant to Napa County General Plan Policy CON-17, projects are required to preserve and protect sensitive biotic communities and habitats of limited distribution. The project site does not contain sensitive biotic communities or habitats of limited distribution, or contain special status plant species, as noted above; therefore the proposed project is considered consistent with Policy CON-17.

Special-Status Animals: A total of 58 special-status wildlife species have been documented in Napa County, and 45 special-status wildlife species documented within the greater vicinity of the project area. Ten of these species have a moderate or high potential to occur within the project parcel: *Antrozous pallidus* (pallid bat); *Lasiurus cinereus* (Hoary bat); *Lasionycteris noctivagans* (Silver-haired bat); *Myotis thysanodes* (fringed myotis bat); *Myotis Volans* (long-legged myotis bat); *Elanus leucurus* (White-tailed kite); *Selasphorus sasin* (Allen's hummingbird); *Picoides nuttallii* (Nuttall's woodpecker); *Baeolophus inornatus* (Oak titmouse); *Spinus lawrencei* (Lawrence's goldfinch). No special-status wildlife were observed in the project area; however, without targeted assessments or protocol-level surveys, their absence cannot be ruled out.

With respect to bat species, on February 6, 2018, WRA conducted a survey that assessed all the trees and substrates within the project area to determine if bat roosting/habitat was present. Their survey found that most trees scheduled for removal have no potential to support bats, due to small diameter, health of the trees and lack of suitable mass to maintain stable thermal conditions required by roosting bats. Several hollow stumps were also investigated but deemed unsuitable. One large snag located in the eastern portion of the project area has

the potential to support roosting bats (Tree #2506 Coast Live Oak, 8.7-inches DBH) (**Exhibit A**). The snag has a large cavity which was investigated to the extent practical; however, there was no way to fully iinvestigate the upper sections of the trunk which contained fissures and basal cavities that appear to be suitable for bat roosting (WRA, 2019 **Exhibit B-2**).

Removal and trimming of trees during the bat maternity season (generally April through August) could impact bat breeding and potentially result in the take of bats, resulting in a potentially significant impact. The project as proposed includes protection measures for bats (or 'Environmental Commitments') as part of the project (**Exhibit A**). To ensure the implementation of the proposed environmental commitments are consistent with, and in accordance with, California Department of Fish and Wildlife (CDFW) and County policies, protocol and practice, the following condition of approval would be implemented, should the project be approved. Therefore, the project as proposed would result in less than significant impacts to bat species. In addition, **Mitigation Measure BR-1** would reduce the project size by 0.3-acres and the proposed tree removal from 60 trees to 24 trees, and includes retention of the large snag that contains potential bat habitat (Tree #2506), thereby avoiding potential impacts on observed bat habitat.

> **Environmental Commitment - Bat protection condition**: A Qualified Biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a habitat assessment in order to identify suitable bat habitat trees with in the project area(s), no more than 6 months and no less than 14 days in advance of the planned tree removal. If the habitat assessment determines that trees proposed for removal contain suitable bat habitat, the following shall apply to potential bat habitat trees:
>
> i. Tree trimming and/or tree removal should only be conducted during seasonal periods of bat activity (August 31 through October 15, when young would be self-sufficiently volant and prior to hibernation, and March 1 to April 15 to avoid hibernating bats and prior to formation of maternity colonies), under supervision of a qualified biologist. Note that these windows may shift with atypical temperatures or rainfall. Trees should be trimmed and/or removed in a two-phased removal system conducted over two consecutive days. The first day (in the afternoon), limbs and branches would be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures would be avoided, and only branches or limbs without those features would be removed. On the second day, the entire tree would be removed.
>
> ii. For removal of bat habitat trees outside the seasonal activities identified above (between October 16 and February 28/29 of the following year or between April 16 and August 30), a qualified biologist shall conduct pre-construction survey within 14 days of project initiation and/or removal to determine absence/presence of special-status bat species. Survey methods, timing, duration, and species shall be provided for review and approval by Napa County prior to conducting pre-construction surveys. A copy of the survey shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present, removal can proceed. If bats are found to be present, a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Planning Division and CDFW. The removal or exclusion plan shall be implemented upon approval of the plan by the County Planning Division.

With respect to special-status bird and raptor species, as previously indicated, no special-status bird or raptor species were observed during the surveys conducted by WRA. However, suitable habitat that could support special-status bird species as well as passerine birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code, in particular oak woodlands and associated trees that could be utilized for nesting, is found in the vicinity and occurs within or adjacent to the project area. Removal of habitat for special-status species would be considered a potentially significant direct impact, including loss of nests, death of young birds, and/or abandonment. Potential indirect impacts resulting from temporary and intermittent incresase in noise levels may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities which is considered a potentially significant impact. Additionally, there is the potential for these species to move into the project area or adjacent areas prior to commencement of the project, should the project be approved. Noise and disturbance generated through vegetation removal and land preparation have the potential to affect special-status bird species that may subsequently move into the area, potentially resulting in direct mortality, nest abandonment or loss and death of young, and loss of reproductive potential at active nests or roosts, which is considered a potentially significant indirect impact to special-status species.

To reduce potentially significant impacts to special-status bird species, the owner/applicant has included protection measures ('Environmental Commitments) as part of the project (**Exhibit A**) so that special-status bird species would not be adversely affected during project implementation. To ensure the implementation of the proposed environmental commitments are consistent with, and in accordance with, California Department of Fish and Wildlife (CDFW) and County policies, protocol and practice, the following condition of approval would be implemented, should the project be approved. The project as proposed, including implementation of proposed environmental commitments and conditions of approval, would result in less than significant impacts to special-status bird species. In addition, implementation of **Mitigation Measure BR-1** would reduce the project size by 0.3-acres and the proposed tree removal from 60 trees to 24 trees, thereby further reducing anticipated impacts on potential bird habitat.

Environmental Commitment - Bird protection condition: The Permittee shall include in #P18-00435-ECPA the following measures to minimize impacts associated with the loss and disturbance of nesting birds and raptors consistent with and pursuant to California Department of Fish and Wildlife (CDFW) Code Sections 3503 and 3503.5:

a. For earth-disturbing activities occurring between February 1 and August 31, (which coincides with the grading season of April 1 through September 1 – NCC Section 18.108.027C, 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, raptors, and the Northern Spotted Owl, within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas. The preconstruction survey shall be conducted no earlier than 14 days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 14 days from the survey date, surveys should be repeated. A copy of the survey will be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
b. After commencement of work, if there is a period of no work activity of 5 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
c. In the event that nesting birds are found, the Permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
e. Alternative methods aimed at flushing out nesting birds prior to 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) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

b-c) There are no mapped blue-line streams located on the project parcel or in the immediate vicinity. The project parcel contains two ephemeral streams and one seasonal wetland, which occupies approximately 0.05-acre as a seep at the head of one of the ephemeral drainages (WRA, 2018 – **Exhibit B-1**). The parcel includes riparian habitats, including 0.33-acres of coast live oak riparian habitat and 1.23-acres of blue oak riparian habitat, both located around the two ephemeral streams. Both drainages contain clear ordinary high water marks and bed-and-bank; therefore, both are likely jurisdictional under Section 404 of the CWA and Section 1600 of the CFGC. The wetland and connected ephemeral stream are located outside of the project area, approximately 600 feet to the north. The ephemeral stream runs from the wetland in the northern central part of the parcel and flows east. The stream is surrounded by approximately 0.33-acres of coast live oak riparian habitat; the habitat, stream and wetland are entirely outside of the project area and would not be impacted by project implementation. One ephemeral stream is located immediately east of the project site, originating north of the project site and flowing in a southeasterly direction, and is a tributary to an unnamed blue line stream located ±0.4-miles southeast of the project and that flows into Lake Hennessey. This ephemeral stream is surrounded by approximately 1.23-acres of blue oak riparian habitat. The project design includes a 50-foot setback from this stream, and entirely excludes the blue oak riparian habitat; therefore, no impacts are anticipated on blue oak riparian habitat. The proposed project has been designed to include a 50-foot setback from the ephemeral stream, in conformance with 18.108.025 (General provisions – Intermittent/perennial streams), and to avoid the blue oak riparian habitat entirely. Furthermore, if approved, the project would be subject to the following standard conditions to prevent the potential encroachment into stream setbacks required pursuant to Section 18.108.025, further protecting the aquatic and riparian resources during project implementation and operation, resulting in a less than significant impact. Furthermore, as discussed in Section IV.e below, the implementation of **Mitigation Measure BR-1** would increase setbacks/buffers from these streams and riparian woodland.

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

- The location of creek setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the 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 control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation and until wildlife exclusion fencing is installed as shown on the plans.

- All construction and related traffic will remain on the inside (vineyard block side) of the protective fencing to ensure that the creek, buffer zones, and associated riparian habitat and/or woodland remains undisturbed.
- 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 #P18-00435-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director

d) The project parcel is currently fenced around the property's perimeter. The existing fence is generally approximately 4 feet tall and consists of 2-3 strands of smooth wire. No new wildlife exclusion fencing is proposed as part of the project: existing fencing will be maintained in place and repaired as necessary as part of ongoing vineyard operations.

The project parcel does not contain any designated critical habitat or essential Fish habitat, nor is it within a designated wildlife corridor (WRA, 2018, and Napa County GIS sensitivity map/layers Linkage Designs). While common wildlife species presumably utilize the site to some degree for movement at a local scale, the project parcel does not provide corridor functions beyond connecting similar agricultural/viticultural land parcels in surrounding areas. Ephemeral streams and associated riparian vegetation typically provide localized movement and shelter habitat for common wildlife species. The proposed project has been designed to include 50-foot setbacks from the ephemeral stream to the east of the project site, in conformance with County Code Section 18.108.025 (General provisions – Intermittent/perennial streams). Therefore, less than significant impacts would result from project implementation.

Because wildlife nursery sites were not identified in the project area or parcel, there would be no impacts to wildlife nursery sites. Since the project does not include fencing, project implementation, if approved, would not result in significant impacts to wildlife movement and use. Future installation of fencing would result in a potentially significant impact on wildlife use and movement; in order to ensure that deer fencing is installed in a manner that is consistent with CDFW recommendations to minimize impacts to wildlife movement, the following condition of approval would be incorporated should the project be approved.

> **Fencing – Condition of Approval:** The owner/permittee shall revise Erosion Control Plan #P18-00435-ECPA prior to approval to include a Vineyard Fencing Plan. The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P18-00435-ECPA, and include the following components:
>
> - Replacement fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
> - Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
> - Any new wildlife exclusion fencing installed in association with #P18-00435-ECPA shall be prohibited, and would require County review and approval to ensure any new fencing would not result in potential impacts to wildlife movement.

e) Because the project is located in the Lake Hennessey Domestic Water Supply Drainage, pursuant to Section 18.108.027(B) of the Napa County Code (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 60% of the tree canopy and a minimum of 40% of the grass/brush cover existing on the parcel in 1993 is required to be retained as part of the project. Based on the 1993 Napa County aerial imagery and information provided by the applicant, the subject parcel contained approximately 9.4-acres of tree canopy and 12.4-acres of grass/brush/shrub cover in 1993. As proposed, the project would remove approximately 1.1-acres (or 13%) of the tree canopy and approximately 1.4-acres (or 53%) of the grass/shrub cover as it existed in 1993. Thus, the project as proposed retains approximately 87% of the tree canopy and approximately 47% of the grass/shrub cover as it existed in 1993, resulting in compliance with Section 18.108.27(B). See the discussion below for an analysis of vegetation removal and retention based on current conditions.

Based on the Biological Resources Reconnaissance Survey Report (WRA, 2019), land cover types (or biological communities) occurring within the project parcel include blue oak riparian woodland (1.23 acres), blue oak woodland (7.18 acres), coast live oak riparian woodland (0.33 acres), coast live oak woodland (1.97 acres), developed land (7.83 acres), and California annual wild oats grassland (4.96 acres) and seasonal wetland (0.05 acres). Wild oat grasslands are not considered native grasslands as they are typically dominated by non-native species; these grasslands are common throughout California especially in areas with a history of grazing activities or past disturbance (Suscol Mountain Vineyards EIR, #P09-00176-ECPA, Analytical Environmental Services March 2012, SCH #2009102079 certified February 3, 2013). As proposed, the project would generally remove 1.1 acres of annual grassland and 1.37 acres of non-riparian blue oak woodland. **Table 5** identifies the pre-project and post-project acreages of the specific vegetation types within the parcel.

The acreages identified in **Table 5** may differ from acreages identified in the biological assessment due to rounding and project modification since the biological assessment was prepared, as well as County GIS mapping verification of the project site. Because approximate plant community and project acreages have been verified through County GIS mapping, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure of the subject application.

Table 5 – Biological Community/Land Cover Type Removal and Retention

Biological Communities/Land Cover Type	Pre-Project Conditions (acres)	Acreage Removed	Percent Removed	Percent Remaining	Post Project Acreage
Blue Oak Riparian	1.23	0	0%	100%	1.23
Blue Oak Woodland	7.18	1.37	19%	81%	5.81
Coast Live Oak Riparian	0.33	0	0%	100%	0.33
Coast Live Oak Woodland	1.97	0	0%	100%	1.97
Developed	7.83	0	0%	100%	7.83
Non-Native Annual Grassland	4.96	1.1	22.2%	77.8%	3.86
Seasonal Wetland	0.05	0	0%	100%	0.05

Source: WRA, August 2018 and February 2019 (**Exhibits B-1** and **B-2**)

In terms of numbers of trees to be removed as part of the project, approximately 60 trees, consisting of 21 coast live oak and 39 blue oak with a diameter at breast height (DBH) of 6 inches or greater would be removed (see **Exhibit A**). As indicated in **Table 5**, tree removal would encompass approximately 1.37 acres of non-riparian blue oak woodland. While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

Napa County General Plan Conservation Element Policy CON-24c requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization and soil protection, and species diversity. Policy CON-24c specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible replacement of oak woodland at a 2:1 ratio is required. The proposed project would remove approximately 1.37 acres, or 12.8% of the oak woodland on the parcel, and would retain approximately 87.2% of the parcel's oak woodland; thus, the proposed project would meet the 2:1 ratio required by Policy CON-24.

However, proposed oak tree removal may not be consistent with the overall intent of Policy CON-24, which requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization, soil protection, and species diversity. Specifically, Policy CON-24A strives to perserve oak trees and other significant vegetation that occurs near the heads of drainages to maintain diversity of vegetation types ad wildlife habitat. Furthermore, tree removal may not be consistent with **Conservation Goal CON-6** which encourages the preservation of trees and woodlands for their environmental and open space value, and the County's Conservation Regulations (Napa County Zoning Code Chapter 18.108), which encourages the preservation of natural resources through project design that minimizes grading and other such man-made effects in the natural terrain, preserves natural habitat, minimizes impacts on existing land forms, avoids steep slopes, preserves existing vegetation.

The proposed project includes vineyard avenues, turnaround areas, and grapevines potentially occurring within the drip lines of adjacent oak tree canopies and project land preparation activities (i.e. land ripping), which would negatively affect the trees root structure. The University of California – Division of Agricultural and Natural Resources (UC-ANR), and the County's *Voluntary Oak Woodland Management Plan* (Napa County, October 2010) have identified several factors, such as irrigation, soil compaction (resulting in decreased infiltration and oxygen availability to roots), pesticide and herbicide use, fertilizer use, and mechanical practices such as disking or seeding for cover crops, when conducted within the dripline of oak trees can contribute to their decline[9].

Removal of these oak trees is considered a potentially significant impact in that their removal would be inconsistent with Policy CON-24 and the County's Conservation Regulations because existing vegetation is not being preserved, and a potential cumulative impact due to continuing tree and woodland removal associated with past and proposed agricultural development occurring on the subject property and surrounding area. Potential indirect impacts to trees and woodland located adjacent to the project area due inadvertent tree removal and subsequent limited regeneration is considered a potentially significant indirect impact of the project. Additionally, there is the potential for significant indirect and cumulative impacts to oak woodlands and associated habitat through future disturbance and/or removal, in that future loss could result in the preservation of on-site oak woodland below the 2:1 ratio provided for under General Plan Policy CON-24.

Implementation of **Mitigation Measure BR-1** would require the reconfiguration of the proposed vineyard block to avoid a majority of the oak trees and associated driplines located on steep slopes and within the woodlands upslope from the ephemeral stream. **Figure 4** and **Table 6** identifies the Proposed Project Revisions resulting from implementation of **Mitigation Measure BR-1**. Specifically, implementation of this measure will retain approximately 36 mature trees over 6 inches DBH (approximately 0.3 acres of blue oak woodland), reducing removal of oak trees (with a DBH over 6 inches) to approximately 24 trees, and reducing the overall project acreage by approximately 0.3 acres, resulting in a total project area of 2.2 gross acres (1.4 net acres). Implementation of **Mitigation Measure BR-1** would reduce the potentially significant direct, indirect and cumulative impacts related to Policy CON-24 and the County's Conservation Regulations to a less than significant level.

Table 6 – Mitigated Project Vegetation Removal

Vegetation Type	Pre-Project Conditions (acres)	Post-Project Acreage Removed (Original Project)	Post-Project Acreage Removed (Mitigated Project)	Acreage Gained by Mitigation
Blue Oak Riparian	1.23	0	0	0
Blue Oak Woodland	7.18	1.37	0.97	0.3
Coast Live Oak Riparian	0.33	0	0	0
Coast Live Oak Woodland	1.97	0	0	0
Developed	7.83	0	0	0
Non-Native Annual Grassland	4.96	1.1	1.1	0
Seasonal Wetland	0.05	0	0	0

Mitigation Measure BR-1 also includes provisions to ensure the permanent protection of oak woodlands at a 2:1 preservation ratio so that compliance with Policy CON 24(c) is realized on the project site, and limit earth disturbance and agricultural use within the drip-lines of oak trees to ensure that the root structures of these trees are not adversely affected. Implementation of this measure may reduce the project by up to approximately 0.3-acres, resulting in a total project area of 2.2 acres. Additionally, because the existing trees to be retained on-site provide a natural means of erosion control, especially in the areas immediately adjacent to the proposed vineyard, the provisions of Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) will be incorporated into **Mitigation Measure BR-1**, which further reduce potential indirect impacts.

Mitigation Measure BR-1: The owner/Permittee shall revise #P18-00435-ECPA prior to County approval to implement the following measures to reduce potential cumulative and indirect impacts to oak woodland and valley oak trees as a result of the project:

a. Revise the proposed boundaries of #P18-00435-ECPA prior to County approval to eliminate to the maximum extent feasible removal of trees on steep slopes (defined as slopes over 30%) and near the ephemeral stream to reduce potential impacts on slope stability and wildlife habitat. The revised boundaries shall result in the retention of 36 trees with DBH over 6", as shown in **Figure 4 (Mitigated Project Boundary,** Three Twins LLC Vineyard Conversion), and includes the following trees: #2505 through #2508, #2510 through #2518, #2549 through #2559, and #2563 through #2578.

b. Vineyard avenues may encroach up to 15 feet into driplines on the in-board side of vineyard block as shown in **Figure 4**. Where vineyard avenues and turnaround areas encroach into driplines, land preparation (i.e. grading and land ripping) shall be limited to planted areas of the vineyard, and no grading or land ripping shall occur within driplines to facilitate avenue construction: vineyard avenues may be disked to establish the specified vineyard cover crop. Prior to the commencement of any vegetation removal and earthmoving activities, the limits of land ripping shall be demarcated in the field, the precise locations of said demarcations shall be inspected and approved by the Planning Division: no grading shall occur within driplines to facilitate avenue construction.

c. To protect trees and woodland during construction, temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located within 50-feet of the project area prior to any vegetating removal or earthmoving activities. The precise locations of protective fencing shall be inspected and approved by the Planning Division prior to the commencement of any vegetation removal or earthmoving activities. No disturbance, including grading, planting, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation and maintenance.

d. The Permittee shall refrain from severely trimming the trees and vegetation to be retained adjacent to the vineyard conversion areas.

e. 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 #P18-00435-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

f. A Preservation Area containing 2.0 acres of the remaining oak woodland (2:1 retention) on the parcel that is located outside the boundaries of P18-00435-ECPA shall be designated for preservation in a mitigatory or conservation easement with an organization such as the Land Trust of Napa County as the grantee, or other means of permanent protection acceptable to the County. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the woodland (including, but not limited to

[9] The University of California – Division of Agricultural and Natural Resources, Publication 21577, "Vineyards in an Oak Landscape", 1998.

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 mitigatory or conservation easement within 60 days of approval of #P18-00435-ECPA by the County: in no case shall the ECPA be initiated until said mitigatory or conservation easement is recorded.

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

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

Discussion:

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

The Flaherty Cultural Resource Services Cultural Resource Reconnaissance for Three Twins (2017, incorporated herein by reference), in addition to the Napa County GIS Archaeological sensitive areas and Archaeological sites layers were utilized in this analysis.

a-b) The Cultural Resource Reconnaissance conducted for the project did not identify any historical or archaeological resources within the project parcel. Because the proposed project would avoid historical or archaeological resources, no impacts are anticipated.

Furthermore, project approval, if granted, would be subject to the standard conditions identified below and project specific condition identified in **Section XVIII (Tribal Cultural Resources)** that would further protect and avoid impacts to cultural resources, including any that may be discovered accidently.

c) The Cultural Resource Reconnaissance did not identify potential for any human remains in the proposed development areas, and does not anticipate the discovery of human remains due to the proposed project. Therefore, impacts on human remains are anticipated to be less than significant. Furthermore, the following conditions of approval would be incorporated should the proposed project be approved, which would ensure that potential impacts on human remains would be less than significant.

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

- In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable solids, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching or other onsite excavation(s), earth work within 100-feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists (RPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.
- If human remains are encountered the Napa County Coroner shall be informed to determine if an investigation of the cause of death is required and/or if the remains are of Native American origin. Pursuant to Public Resources Code Section 5097.98, if such remains are of Native American origin the nearest tribal relatives as determined by

the State Native American Heritage Commission shall be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity.

- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

VI. ENERGY. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
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 project to result in a substantial increase in energy demand and wasteful use of energy during project construction, operation and maintenance. The impact analysis is informed by Appendix G of the CEQA Guidelines. The potential impacts are analyzed based on an evaluation of whether construction and operation energy use estimates for the proposed project would be considered excessive, wasteful, or inefficient.

a. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers' commutes to and from the project site would consume fuel. Project construction is anticipated to occur over six months. 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

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.

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	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 creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	☐	☐	☐	☒
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

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

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) No potentially active faults have been mapped in the project site or parcel, and is not within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The nearest known faults to the project site are located ±0.45 miles and ±0.76 miles to the northeast, ±0.72 miles to the south and ±1.1 miles to the southeast (Napa County GIS: Faults and Earthquake Layers). Therefore, this impact would be less than significant.

ii) While 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 area is not in an area subject to high liquefaction potential: liquefaction potential is identified to be very low (Napa County GIS, Liquefaction Layer). Therefore, this impact would be less than significant.

iv) Landslides, landslide deposits, and areas of instability have not been identified within the project site or immediately adjacent areas; the closest known landslide is located over 1,700 feet to west (Napa County GIS: Landslide Layers). 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.

b. The project site's soils are mapped as: Sobrante Loam with 30 to 50 percent slopes (Soil Series # 179) (PPI Engineering, April 2019 – **Exhibits A** and **D**).

Installation and implementation of the ECPA would involve vegetation removal and earthmoving activities within the proposed vineyard areas. Pursuant to NCC Section 18.108.027(C) (Sensitive Water Supply Drainages), earthmoving activities cannot be performed between September 1 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%. Vineyard avenues would also include 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 PPI Engineering (**Exhibit D**), the proposed conversion of approximately 2.5 gross-acres of oak woodland and non-native grassland to vineyard is anticipated to reduce soil loss, or surface erosion, within the project area as compared to existing conditions (**Table 7**)[10]. Under existing conditions, the annual soil loss is anticipated to average 21.14 tons per acre per year across the entire project site depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 6.47 tons per acre per year, or a reduction of approximately 69% as compared to existing conditions.

Table 7 – USLE Soil Loss Analysis

Vineyard Block Transect	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
1A	4.68	2.22	-2.46	-53%
1B	16.46	4.25	-12.21	-74%
Vineyard Totals	**21.14**	**6.47**	**-14.67**	**-69%**

Source: PPI Engineering, 2018 (**Exhibit D**)

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the project, including soil loss experienced during vineyard and cover crop establishment, consist of water bars, straw mulching, straw wattles, and other practices as needed.

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

[10] On April 15, 2019, the Engineering Division determined the project's modeling technically adequate.

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval: The following conditions shall be incorporated by referenced into Erosion Control Plan #P18-00435-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.0) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, rock-filled avenues, rocked crossings, and permanent no-till cover, shall be installed no later than September 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P18-00435-ECPA) shall oversee its implementation throughout the duration of the project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80% within the vineyard and vineyard avenues. The cover crop may be spot spraying within 12" of the base of vines, with post-emergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.
- Temporary and permanent erosion control measures and devices shall be free of plastic monofilament netting and should generally be composed of biodegradable or compostable materials and/or utilize biodegradable or compostable materials in their construction so that animals do not become entangled within them.

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

For these reasons, the proposed project, with incorporation of specified erosion control measures and conditions of approval (should the proposed project be approved), 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 area, 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.

Furthermore, with implementation of **Mitigation Measure BR-1**, which would reduce the acreage of the project by approximately 0.3 acres containing tree cover canopy, it is anticipated that soil loss associated with the project would be similar or may be slightly decreased than that shown in **Table 7**; therefore impacts related to soil loss would remain less than significant.

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

d. Soils of the project parcel consist of Sobrante Loam (Soil Series #179) which exhibits low to moderate shrink-swell potential (USDA Soil Survey of Napa County, 1978). 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 parcel. 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 parcel and the nature of the project (which would involve relatively shallow vineyard), the probability of encountering paleontological resources within the project area is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

Paleontological Resources – Conditions of Approval: Discovery of paleontological resources during construction, grading, or other earth moving activities:

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

VIII. GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with a county-adopted climate action plan or another 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.

Napa County has been working to develop a Climate Action Plan (CAP) for several years. The 2012 Draft CAP (March 2012) recommended using the emissions checklist provided therein, on a trial basis, to determine potential GHG emissions associated with project development and operation. At the December 11, 2012, Napa County Board of Supervisors (BOS) hearing, the BOS considered adoption of the proposed CAP. In addition to reducing Napa County's GHG emissions, the proposed plan was intended to address compliance with CEQA for projects reviewed by the County and to lay the foundation for development of a local offset program. While the BOS acknowledged the plan's objectives, it requested that the CAP be revised to better address transportation-related GHG emissions, to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that BMPs 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 recommenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as 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. As the part of the first phase of development and preparation of the CAP, the County released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating and incorporating the 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. 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/592/Climate-Action-Plan.

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.

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).[11]

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 project area and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below). For the purpose of this analysis, it is assumed that all removed vegetation would be burned, even though some may be chipped/mulched. Refer to **Section XVII (Transportation)** for anticipated number of construction trips and equipment associated with project construction and operations.

In addition to the one-time Construction Emissions, "Operational Emissions" of the vineyard are also 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 farm equipment and vehicles (such as tractors, haul trucks, backhoes, pick-up trucks, and ATVs) and worker vehicle trips (referred to as Operational Equipment Emissions below). See **Section XVII (Transportation)** for anticipated number of operational trips. Operational Emissions from the proposed vineyard would be modest when compared to one-time construction emissions (as discussed below), and a quantitative estimate

[11] "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).

would require many assumptions about what would happen during the next 100 years onsite under "project" and "no project" conditions (e.g., the life expectancy of the proposed vineyard and existing site vegetation, incidences of disease and fire, etc.).

Construction Emissions:

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs, potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_{2e} of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_{2e} of construction equipment emissions per acre of vineyard development.[12] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed ±2.5 gross acres of vineyard development would be approximately 23.5 MT CO_{2e} (2.5 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 2.5-acres of existing vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the 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 area, total carbon stocks for the project site are estimated to be approximately 131.9 MT C or approximately 484 MT CO_{2e} (**Table 8**).

Table 8 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage[1]	Project Acreage[1]	Carbon Storage/Stock per Acre (MT C/acre)[1]	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Oak Woodland	1.37	95.1	130.3	478.2
Grasslands	1.13	1.4	1.6	5.8
Total			131.9	484

[1] For estimated GHG emissions associated with this project, acreages of various vegetation types being removed has conservatively been rounded up to the nearest tenth of an acre.
Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, April 2020.

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%.[13] Using 50% as a more conservative estimate, the proposed project could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 453.8 MT CO_{2e} (**Table 9**).

Table 9 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/ Carbon pool[1]	Project Acreage	Carbon Loss/Emission Per Acre (MT C acre)[1]	Total Carbon Loss in Metric Tons	Total Carbon Loss/ Emission MT CO2e
Oak Woodland	1.37	89.6	122.8	450.5
Grasslands	1.13	0.8	0.9	3.3
Total			123.7	453.8

[1] For estimated GHG emissions associated with this project, acreages of various vegetation types being removed has conservatively been rounded up to the nearest tenth of an acre.
Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, April 2020.

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

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

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

vineyard per year. Using this emission factor, it is anticipated that Operational Equipment Emissions associated with the proposed 2.5-acre agricultural development would be approximately 1.7 MT CO_{2e} (2.5 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. Oak woodland sequester approximately 0.43 MT C per acre per year; utilizing this factor, the proposed project would result in a loss of approximately 0.58 MT C of sequestration. The 2012 Draft CAP indicates that grasslands sequester a negligible quantity of CO_2 acre per year (essentially zero), and does not identify sequestration factors for the grasslands vegetation type. Therefore, the sequestration factor for Croplands of 0.057 MT C per acre per year has been attributed to the grasslands that are proposed for removal to provide the most conservative GHG emission estimate. Utilizing this factor, the project would convert 1.13 acres of grassland to vineyard, resulting in a reduction of approximately 0.06 MT C of sequestration. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 0.64 MT C per year or 2.36 MT CO_2e per year[14].

Furthermore, 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 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 477.3 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 4.0 MT CO_{2e} per year (**Table 10**).

Table 10 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of CO_{2e}		Annual Ongoing Emissions in Metric Tons of CO_{2e}	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	23.5	Vehicles and Equipment	1.7
Vegetation and Soil	453.8	Loss of Sequestration	2.36
Total	477.3	**Total**	4.06

Source: Napa County Conservation Division, November 2018

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 477.3 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 (CCR), projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.02% 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 80%, 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 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 4.06 MT CO_{2e} per year, which is well below the threshold of 1,100 MT CO_{2e} per year that BAAQMD has defined as significant for CEQA purposes when considering land development projects. Therefore, ongoing project emissions, including loss of sequestration, due to the proposed project

[14] 1.13 acres of grassland times 0.057 MT C = 0.06 MT C, and 1.37 acres of oak woodland times 0.425 MT C = 0.58 MT C, totaling 0.64 MT C

are considered less than significant. Furthermore, with the implementation of **Mitigation Measure BR-1**, the project would be reduced by approximately 0.3-acres consisting of blue oak woodland, which would reduce one time emissions by approximately 135.3 MT CO2e, and operational emissions by approximately 0.91 MT CO2e/year thereby further reducing anticipated air quality impacts associated with vineyard development and ongoing vineyard operations

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IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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 wild-land fires?	☐	☐	☒	☐

Discussion:

a-b. Installation of the proposed ECPA 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 are delivered in locked box to the vineyard by Napa Select Vineyard Services. The chemicals are mixed in a barn near the concrete water tanks located approximately 330 feet north of the proposed project boundary between existing Vineyard

Block A (P05-0121) and the property line along Greenfield Road, which is a least 300 feet from the nearest potential aquatic source and approximately 300 feet from the site's well. 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.

The risk of potentially hazardous materials reaching or affecting adjacent wetlands or other aquatic resources is significantly reduced because: i) the project would provide minimum setbacks of 35 feet and 50 from the site's aquatic resources; ii) project staging and storage areas, including agricultural chemical storage and mixing would be located at least 50 feet from aquatic resources and the site's well; and iii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal laws. 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:

- Workers shall follow manufacturer's recommendations on use, storage and disposal of chemical products.
- Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
- During routine maintenance of equipment, properly contain and remove grease and oils.
- Discarded containers of fuel and other chemicals shall be properly disposed of.
- Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
- All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and staging areas shall occur at least 100 feet from watercourses, existing groundwater well(s), and any other water resource to avoid the potential for risk of surface and groundwater contamination.
- To prevent the accidental discharge of fuel or other fluids associated with vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

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

c. The nearest known schools (St. Helena Elementary and St. Helena High) are located 6.4 miles and 5.3 miles, respectively, to the west of the project parcel in the City of St. Helena (Napa County GIS: Schools Layer). There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.

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

e. The closest public airport to the project site (Parrett Field) is located over 4 miles northwest in Angwin. 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. There would be negligible numbers of workers visiting the project parcel on a temporary basis for ECP and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in no permanent substantial increase in the number of people working or residing at the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and no impact would occur.

g. No structures are proposed as part of the project. The project site is located in an area identified as having a moderate fire severity (CALFIRE 2007 - https://egis.fire.ca.gov/FHSZ/; and Napa County GIS Fire hazard severity zones layer). 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 area 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.

X. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
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 which would:				
i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion:

On January 14, 2014, Governor Jerry Brown declared a drought emergency in the state of California. That declaration was followed up on April 1, 2015, when the Governor directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25%. These water restrictions do not apply to agricultural users. However, on April 7, 2017, Governor Jerry Brown signed an executive order lifting California's drought emergency in all but four counties (Fresno, Kings, Tulare and Tuolumne). The County of Napa has not adopted or implemented any additional mandatory water use restrictions. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

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

In response, the San Francisco Bay Regional Water Board has implemented the following programs. In 2009 the San Francisco Bay Regional Water Board adopted total maximum daily load (TMDL) for the Napa River (Order #R2-2009-0064), which calls for reductions in the amount of fine sediment deposits into the watershed to improve water quality and maintain beneficial uses of the river, including spawning and rearing

habitat for salmonid species. Several watershed stewardship groups have developed management plans and are planning or have implemented large-scale projects to enhance water quality and stream-riparian habitat with the watershed (San Francisco Bay Regional Water Board, 2009).

Vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life. In July 2018, the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan[15]"; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit, the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board[16].

There are no blue-line streams on the project parcel (**Exhibit B-1** and Napa County GIS: blue line streams layer). There is a 0.05-acre seasonal wetland and two ephemeral streams in the project parcel; one of the ephemeral streams flows northwest to southeast immediately to the east of the project boundary. There is a linear concavity along the southern boundary of the project site that was determined not to meet the definition of a stream or other aquatic resource qualifying for a Water of the U.S., Water of the State, Stream according to CDFG, or a Stream as defined by Napa Couty (WRA, February 2019). The proposed project has been setback from these features per NCC 18.108.025 (General Provisions – Intermittent/Perennial Streams).

a. Waste discharge is not anticipated as part of the 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 area. Agricultural Erosion Control Plan #P18-00435-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and 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. On June 28, 2011, the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, and well pump test protocols, management objectives, and community support. The County completed a countywide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report, 2011) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan, 2013). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (2013).

   In general, recent studies have found that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with a shallow depth to water. Historical trends in the Milliken-Sarco-Tulucay (MST) area, however, have shown increasing depths to groundwater, but recent stabilization in many locations. Groundwater availability, recharge, storage and yield are not consistent across the County. More is known about the resource where historical data have been collected. Less is known in areas with limited data or unknown geology. In order to fill existing data gaps and to provide a better understanding of groundwater resources in the County, the Napa County Groundwater Monitoring

[15] 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.

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

Plan recommended 18 Areas of Interest (AOIs) for additional groundwater level and water quality monitoring. Through GRAC's well owner and public outreach efforts, approximately 40 new wells have been added to the monitoring program within these areas. Groundwater Sustainability Objectives were developed and recommended by GRAC and adopted by the Board. The recommendations included the goal of developing sustainability objectives, provided a definition of sustainability, and explained the shared responsibility for Groundwater Sustainability and the important role of monitoring as a means to achieving groundwater sustainability.

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

A Water Demand and Water Availability Analysis (WAA) was prepared in order to determine if the proposed increase in water demand as a result of the proposed project would result in a significant impact to groundwater supplies (O'Connor Environmental, Inc, December 2018 - **Exhibit F**). The WAA estimates the onsite groundwater recharge, overall availability, and use, both existing and proposed, in order to assess potential impact on groundwater.

Water demands for the existing vineyard and onsite residential uses are currently being met by two existing groundwater wells located on the project parcel: identified as Well 1 and Well 2 in **Exhibit F.** The project proposes to irrigate the vineyard from the well that serves as the source for irrigation for existing vineyard on the project parcel (i.e. Well 1), which is located in the southeastern quadrant of the project parcel, approximately 330' north of the project site. Well 2 serves the residence and is located immediately south of the driveway at the western edge of the parcel, and will continue to serve the residence but is not proposed as a project well. The nearest offsite wells are located 660 feet from Well 1 and 260 feet west-northwest of Well 2; another well located on the parcel to the south is 376 feet from Well 1 and 419 feet away from Well 2. All other neighboring wells are located more than 500 feet away from either of the two wells on the project parcel. The Tier 2 Water Availability Analysis concluded that implementation of the proposed project would not cause significant adverse effects on groundwater elevation on neighboring parcels.

The approximately 4.76-acre of existing vineyard utilizes approximately 4.18 acre-feet of water per year (AF/yr) and the existing residence, and associated landscaping and pool utilizes approximately 2.9 AF/yr, for a total existing water use of approximately 6.9 AF/yr. The proposed vineyard (approximately 1.7 net planted acres) is anticipated to utilize approximately 0.85 AF/yr of groundwater annually: typically, the annual irrigation season ranges from late May to September. After development, the proposed project in conjunction with existing groundwater use (that includes: ±6.46 net planted acres of vineyard; and residential use including pool and landscaping) would result in approximately 7.7 AF/year of groundwater demand.

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 Tier I WAA, which uses an average annual rainfall of 37.3 inches per year over the approximate 22.96 acres of the parcel's land area available for recharge and a 20% deep percolate recharge estimate, estimates the average annual groundwater recharge of the parcel to be approximately 14.6 AF/year (**Exhibit F).** The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions (see **Exhibit F** for details and calculations).

The project as proposed, in conjunction with existing use, is estimated to have an annual onsite future groundwater demand of 7.7 AF/year, which is below the estimated average annual recharge volume of 14.6 AF/year, and higher than the anticipated recharge rate during drier yeas of 6.3 AF/yr. Furthermore, with implementation of **Mitigation Measure BR-1**, which would reduce the project by approximately 0.3 acres; therefore, anticipated long term overall water use may be slightly reduced.

Considering: i) anticipated annual water use of the project parcel for existing and proposed use of approximately 7.7 AF/year is below the parcel's anticipated annual groundwater recharge rate of approximately 14.6 AF/year; ii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and iii) 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:

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

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

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

c. Earthmoving activities have the potential to alter the natural pattern of surface runoff, which could lead to areas of concentrated runoff and/or increased erosion. The conversion of existing vegetation to vineyard would alter the composition of the existing land cover and infiltration rates, which could affect erosion and runoff. The 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 80% (including vineyard avenues and turnarounds/turn-spaces), 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, D** and **E** 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 water bars. 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 and water bars 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 and water bars would have a negligible effect on existing drainage patterns in that they would not alter the existing topographic contours of the site.

The proposed project would install two water bars uphill of the proposed vineyard block (**Exhibit A**). Waterbars function similar to rolling dips in that they direct water off of a road surface where it can slow and disperse concentrated flow. Waterbars typically require annual installation prior to the rainy season (usually post-harvest to minimize traffic damage and maintenance). Road-related sediment can be prevented from entering the stream system through a variety of best management practices and erosion prevention treatments that generally involve dispersing road runoff and disconnecting road surface and ditch drainage. The proposed project has been designed consistent with guidance from Napa County RCD and the Handbook for Forest and Ranch Roads, and will ensure that the existing road network will be upgraded as necessary to minimize potential for erosion and sediment delivery to local drainages. While this erosion control measure would have the potential to divert water to other locations within the project area, their limited use, and the fact that they do not divert water into different drainage areas or drainage courses, this feature is not anticipated to substantially alter the overall drainage patterns within the project site or the surrounding area.

A Hydrologic Analysis for the project was prepared by the Project Engineer (PPI Engineering, October 2018 - **Exhibit E**). The Analysis identifies two watershed basins within the project area, and utilizes the Natural Resource Conservation Service (NRCS) Technical Release 20 (TR-20) method. The Analysis concluded that there would be no change in peak flow or times of concentration (the time it

takes for runoff to flow from the upper most point in each watershed to the watershed's outlet) for all watersheds in the project area as result of the project (**Table 11**)[17].

Table 11 – Hydrologic Modeling Calculations (TR-20) Results: Runoff Rates

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Watershed 1				
Pre-project conditions	4.35	9.41	15.14	17.68
Post-project conditions	4.35	9.41	15.14	17.68
Watershed 2				
Pre-project conditions	4.75	9.81	15.46	17.94
Post-project conditions	4.75	9.81	15.46	17.94

Source: PPI Engineering, October 29, 2018, Hydrologic Study - **Exhibit E**

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. Additionally, implementation of **Mitigation Measure BR-1**, which would reduce the project by approximately 0.3-acres, is anticipated to result in similar hydrologic effects/rates.

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. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and sedimentation is anticipated under post-project conditions. Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less than significant impact.

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation), projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly[18].

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 area and 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 drainage courses and 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 have an effect on water resources. Because the project as designed is not expected to increase runoff rates or times of concentration in relation to existing conditions (as discussed in response 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 area. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 14.67 tons/year (or an approximate 69% reduction), have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing

[17] On April 15, 2019, the County Engineering Division determined the project's modeling technical adequate.
[18] Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted.

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

Furthermore, project approval, if granted, would be subject to the following condition of approval, in addition to the **Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation** conditions of approval identified in **Section VII (Geology and Soils)**, which would further reduce and avoid potential impacts to water quality as a result of the project and ongoing operations.

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

Therefore, the proposed project as designed, in conjunction with identified conditions of approval (should the proposed project be approved), would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; resulting in no impact.

XI.	LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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, the City of St. Helena, is approximately 4.4 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 consist predominantly of rural residences and vineyards, as well as undeveloped land. 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 measure and conditions of approval (should the proposed project be approved), the project has been found consistent with applicable code requirements and General Plan Goals and Policies, including but not limited to the following:

- 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 project is anticipated to decrease soil loss and potential sedimentation by approximately 69% and maintain runoff conditions as compared to existing conditions.

- The project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The project, with implementation of **Mitigation Measure BR-1,** is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. A Biological Resources Reconnaissance Survey was prepared for the project (**Exhibit B-1**). The project as proposed, with implementation of **Mitigation Measure BR-1,** would avoid potential direct, indirect, and cumulative impacts to oak woodland and related habitat occurring on the parcel. With implementation of the Project's Environmental Commitments potential impacts to special-status bird and bat species would be avoided.
- With implementation of **Mitigation Measure BR-1,** the project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the project would maintain levels of biodiversity and would avoid impacts to special-status animal species.
- The proposed project involves oak tree removal that may not be consistent with the overall intent of Policy CON-24, which requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization, soil protection, and species diversity. Specifically, Policy CON-24a strives to perserve oak trees and other significant vegetation that occurs near the heads of drainages to maintain diversity of vegetation types ad wildlife habitat. With implementation of **Mitigation Measure BR-1**, the project would reduce potential impacts on oak woodlands to a less than significant level.
- The project is consistent with Policy CON-30, which encourages the avoidance of wetlands. The seasonal wetlands onsite are avoided with a minimum 50-foot buffer.
- The project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With incorporation of the fencing conditions of approval, and that the project does not include the installation of new wildlife exclusion fencing, wildlife movement would not be further impaired as a result of the project.
- The 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 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 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 Agricultural, Watershed and Open Space (AWOS), and is therefore consistent with Policy AG/LU-20.

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

XII.	MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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 approximately 20 miles to the south 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.

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

Discussion:

a-b. The project site is located in a rural setting where surrounding parcels are generally planted with vineyards and contain wineries, or undeveloped. The nearest offsite residences to the project site are located approximately 400 feet (±0.07 miles) to the northwest, 670 feet (±0.13 miles) to the west, 700 feet (±0.14 miles) to the southwest, 960 feet (±0.17 miles) to the southeast, and 1000 feet (±0.19 miles) to the north. Additionally, adjacent proprieties and properties in the immediate area contain vineyards and a winery.

Activities associated with the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Equipment necessary for project construction and operation includes a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. **Table 12** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 12**, equipment used for vineyard development could produce a maximum of 89dBA (A-weighted decibels) at a distance of 50 feet.

Table 12 – 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 13 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. Based on distances to existing residences, noise associated with project construction would be approximately 65 to 75 dBA at the nearest existing offsite residences.

Table 13 – 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

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 14** 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 14 – 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 of agricultural activities would be approximately 50 dBA to 60 dBA at the closest existing offsite residences.

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). Noise levels from routine operation and maintenance activities at the nearest offsite residence would be 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 and blasting 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 project in excess of County standards.

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

XIV. POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
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 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. Therefore, the proposed project would not induce unplanned population growth in the project vicinity or greater region, either directly or indirectly. No impact would occur.

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

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

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. No impact would occur.

XVI. **RECREATION.** Would the project:		**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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.

XVII. TRANSPORTATION. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 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. The proposed project is expected to generate approximately 12 one-way trips per day during construction and installation for anticipated work crews of 12 to 20 employees. Vehicular equipment anticipated for project implementation typically includes a tractor/trailer, D6 bulldozers, backhoe, excavator, dump truck, pickup trucks, water truck, flatbed trucks, and ATVs. It is anticipated that approximately 6 truck trips would be needed to mobilize and demobilize construction equipment (i.e. deliver and remove heavy equipment at the start and end of project construction). Pruning would occur approximately 1 day per year and is anticipated to require 5 daily employees, resulting in approximately three one-way trips per day during pruning (based on anticipated 2 farmworkers per vehicle). Annual sulfur application would occur approximately 8-10 times between April and July. Weed control would occur in a total of 5 applications in January, April, June and July and is anticipated to generate 1 employee. Harvest is anticipated to generate up to 7 daily employees resulting in approximately 8 one-way trips per day for a period of 1 day of the year. Approximately one 5-ton truck trips are anticipated for harvest. Vehicular equipment for ongoing vineyard maintenance is anticipated to include ATVs, tractors, truck and equipment trailers, and passenger cars and/or light trucks, totaling approximately 30 trips annually. Some of this traffic already exists onsite due to the operation and maintenance of the existing vineyard. 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.

The project site is located at 705 Greenfield Road, approximately 0.7 miles north of its intersection with Conn Valley Road in St. Helena. Vehicles and other equipment would use County roads and State highways for very short periods during construction and subsequent vineyard operations.

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. Trips already occur due to the existing vineyard on the subject property, and it is anticipated that a number of existing employees would be utilized to develop and manage the proposed vineyard; therefore, it is anticipated that trips to and from the site would not significantly change as a result of the project. The proposed project would result in a minimal increase in traffic levels (of up to approximately 12 one way trips during construction) 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 and existing site development. 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 site access off Greenfield Road for project development (**Figures 1-3**). The project does not include roadway improvements and/or modifications to Greenfield Road, or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the property and other 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 parcel and project area, resulting in 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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion:

Notice of the proposed project was sent to the Yocha Dehe Wintun Nation, the Middletown Rancheria, and the Mishewal Wappo Tribe of Alexander Valley on March 16, 2020. On April 6, 2020, the County received a response letter from the Yacha Dehe Wintun Nation, indicating that the project area is not within their aboriginal territory, and therefore declined to make any comments on the project. On April 8, 2020, the County received correspondence from the Middletown Rancheria, stating that, although the project area is within the aboriginal territories of the Middletown Rancheria, they are comfortable with the project moving forward, under the mutual understanding that the Tribe shall be contacted should there be any significant inadvertent discoveries. They requested that, should any new information or evidence of human habitation be found as this project progresses, or an expansion of ground disturbing activities, all work shall cease and that the Tribe be contacted immediately. On April 16, 2020, the County received the original notice that was returned to sender unclaimed by the Mishewal Wappo Tribe; the County sent a second notification via certified mail on May 13, 2020; no response was received. The County sent a letter notifying the tribes of closure of the AB-52 consultation proceedings on August 19, 2020; no response was received.

a-b. As discussed in **Section V (Cultural Resources),** the proposed project's Cultural Resource Reconnaissance (Flaherty Cultural Resource Services, 2017 **Exhibit C**) did not identify any historical or archaeological resources within the project parcel. However, there is a known cultural resource (#P28-001537) located on an adjacent parcel. Because the proposed project would avoid known historical or archaeological resources no impacts are anticipated. However, the potential remains that previously unidentified resources may be unearthed as a result of project implementation. As such, the proposed project, with incorporation of the standard cultural resource conditions identified in **Section V (Cultural Resources)**, 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).

XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of a new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
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 wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
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 existing groundwater well would provide irrigation water to the vineyard. Irrigation pipelines would be located within existing roadways 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, water bars, 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 proposed approximate 1.47 net planted acres of vineyard, in conjunction with the existing approximate 3.9 net planted acres of vineyard and residential use would be supplied by an existing onsite well. The WAA conducted by O'Connor Environmental Inc., 2019 (**Exhibit F**) concluded that after full development, water use for the project parcel is estimated to be approximately 7.7 AF/year. Based on the site-specific recharge analysis, the project parcel is estimated to have a groundwater recharge allotment of approximately 14.6 AF/year. Furthermore, with implementation of **Mitigation Measure BR-1**, groundwater use may be slightly reduced. Therefore, the proposed project, in conjunction with existing uses, is anticipated to have 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 project would generate for construction and operation, wastewater generation by the proposed project would not be substantial enough to affect wastewater treatment capacity. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.

d-e. Rock generated during vineyard preparation would be utilized onsite primarily in surfacing vineyard avenues. Rock not used immediately would be stockpiled for future use inside the 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 onsite by spreading it back into the

vineyard, burning it, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, State, and local statues and regulations. Therefore, no impact would occur.

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

Discussion:

The project site is located in a State Responsibility Area (SRA) that is designated as a Moderate Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer).

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 and project area. 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 months). Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk and this impact would be less than significant.

d. Although the proposed project would alter land cover and could include burning woody debris, the 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 no change or a decrease in peak flow for all watersheds in the project site (see **Section X - Hydrology and Water Quality**). Additionally, as discussed in **Section IX (Hazards and Hazardous Materials)** 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 area as compared with existing conditions. For these reasons, no structures or people are anticipated to be exposed to downslope or downstream flooding or landslides as a result of wildfire, and the impact would be less than significant.

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

Discussion:

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

a. As discussed in this Initial Study, implementation of # P18-00435-ECPA, with the incorporation of its Environmental Commitments (i.e. Bird Protection and Bat Protection), **Mitigation Measure BR-1** and identified conditions of approval (should the project be approved), would not have the potential to significantly degrade the quality of the environment.

   Incorporation and implementation of the Environmental Commitments included in this project (as modified by conditions of approval) would minimize and avoid potential impacts to special-status bird species and special-status bat species that may utilize trees/woodland within and adjacent to project area for nesting, roosting, or maternal activities. The wetland and two ephemeral streams identified on the subject parcel have been avoided and provided with buffers consistent with code requirements. No cultural resources or examples of California history or prehistory have been identified within the project area, and with incorporation of standard and project specific conditions to protect cultural resources that may be discovered accidently, significant impacts to cultural resources are not expected (**Section V, Cultural Resources)**. Therefore, the proposed project, with incorporation of **Mitigation Measure BR-1,** Environmental Commitments, and conditions of approval, is not anticipated to result in potential significant direct, indirect, and cumulative impacts to the quality of the environment or wildlife species.

b. The subject property is located within the Lake Hennessey drainage that contains approximately 5,165 acres. In 1993, vineyard acreage within this drainage was approximately 318 acres, or 6.1% of the drainage. Since 1993, approximately 259 acres (or 5.01% of the drainage) have been developed to vineyard, resulting in approximately 11.2% of the drainage (or approximately 577-acres) containing vineyard. There is one other pending ECP in the drainage, which would convert 29.1 gross acres to vineyard; in conjunction with the proposed project, these pending ECPs, if approved, would add an additional 31.6 acres of vineyard to the drainage conversion total, resulting in approximately 609-acres (11.8%) converted to vineyard since 1993.

   It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Lake Hennessey Drainage, that there are approximately 1027 acres (19.9% of the drainage) having the potential to be developed to vineyard, this in conjunction with existing and approved vineyard development (approximately 577-acres) results in a total potential build out of approximately 1,604 acres or approximately 31% 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 these 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 cumulative environment (i.e., Lake Hennessey drainage) over the last 27 years (1993-2020) were used to project an estimation of vineyard development for the next three to five years. Over the past 27 years within the Lake Hennessey drainage, approximately 9.6-acres of agriculture were developed per year (259 divided by 27). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 28.8 to 48-acres over the next three to five years within the Lake Hennessey drainage are considered reasonable estimates. 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 to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VIII:

The project (#P18-00435-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the air basin that would 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 project would be subject to standard air quality conditions of approval (should the project be approved) that require implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 8** and **9**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

A project-specific Biological Resources Reconnaissance Survey (**Exhibit B-1**) was performed for the project. The 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 CNDDB and CNPS databases. As discussed in **Section IV (Biological Resources)**, no special-status plant species or their habitat were identified in the subject project parcel and project area. However, it was identified that there is the potential for special-status animal species (i.e. birds and bats) to occur within the project area because potential habitat for these species (i.e. oak woodland) exist within the parcel. The proposed project involves oak tree removal that may not be consistent with the overall intent of Policy CON-24, which requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization, soil protection, and species diversity. Specifically, Policy CON-24a strives to perserve oak trees and other significant vegetation that occurs near the heads of drainages to maintain diversity of vegetation types ad wildlife habitat. With implementation of the project's Environmental Commitments, standard conditions of approval and **Mitigation Measure BR-1**, which would reduce potential direct and cumulative impacts to oak woodlands and associated habitat, would reduce potential impacts to these special-status species to a less than significant level. Therefore, the project as proposed, with implementation of its environmental commitments, standard and project specific conditions of approval, and mitigation measure would not contribute to a cumulatively significant impact to special-status and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII:

The Cultural Resources Survey conducted for the project did not identify any historical or archaeological resources within the project parcel. With the incorporation of standard and project specific conditions to protect cultural and tribal resources that may be discovered

accidentally, significant impacts to cultural and tribal resources are not expected (see **Section V Cultural Resources** and **Section XVIII 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 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 14.67 tons/year as compared to existing conditions (**Table 7**). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas, and the installation of water bars and straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the project would reduce soil loss as compared to existing conditions the project is not anticipated to contribute cumulatively to sediment production within the Lake Hennessey drainage; 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 reasonable 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:

Water use calculations provided in the WAA prepared by O'Connor Environmental, Inc (December 2018 -**Exhibit F**) indicate that the proposed development consisting of approximately 1.7 net acres of planted vineyard would result in approximately 0.85 acre-feet per year (AF/yr), with water use for existing and proposed use totaling approximately 7.7 AF/yr (**Table 11**).

The average annual rainfall utilized in the groundwater recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions. Based on annual average rainfall for the area (approximately 37.3 inches per year) and the size of the subject property (approximately 22.96-acres available for recharge), and other conditions that affect the amount of precipitation that has the potential to recharge the groundwater aquifer, such as geological conditions, runoff characteristics, and evapotranspiration, it was anticipated that approximately 20% of average rainfall or 14.6 AF/yr would be available for groundwater recharge.

Considering the anticipated water use for existing uses and proposed vineyard of 7.7 AF/yr is below the properties anticipated annual groundwater recharge rate of approximately 14.6 AF/yr, potential impacts associated with groundwater use is anticipated to result in less than significant impacts to groundwater supplies, groundwater recharge, local groundwater aquifer levels, and well interference or drawdown effects on nearby wells.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the TR-20 Runoff Model has been prepared by PPI Engineering (October 2018 - **Exhibit E**). The project does not include the creation of concentrated flows, or materially alter site drainage patterns, or materially alter site slopes no change in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Exhibit E**), therefore no significant impacts due to changes in hydrology are expected.

The project 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 reasonable 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 measure 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]**), including General Plan Policy CON-24 regarding oak woodland removal.

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 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. Periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form of heat lights or downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the project is considered to be less than cumulatively considerable. The project does not conflict with any current zoning for agricultural or forestry use, nor does the 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 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 number of off-peak vehicle trips associated with the project are considered less than cumulative considerable. The project does not include the construction of structures that would result in population growth or displacement of people, the 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 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, and with incorporation of identified mitigation measure and conditions of approval as discussed throughout this Initial Study, the proposed project is not anticipated to result in either project-specific or cumulatively considerable negative impacts; therefore, impacts associated with this project that may be individually limited, but cumulatively considerable, would be less than significant.

c. Implementation of the 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:

LIST OF TABLES:

LIST OF EXHIBITS:

Exhibit A	PPI Engineering, April 8, 2019, Erosion Control Plan, Three Twins LLC Vineyard (orig. submittal October 28, 2018)
Exhibit B-1	WRA Environmental Consultants, August 2018, Biological Resources Reconnaissance Survey Report, 704 Greenfield Road, Napa County, California (APN:025-380-017)
Exhibit B-2	WRA Environmental Consultants, February 13, 2019, Response to Comments (Biology), Three Twins Vineyard Agricultural Erosion Control Plan Application #P18-00435-ECPA; 704 Greenfield Road (APN: 025-380-017)
Exhibit C	Flaherty Cultural Resources Services, June 27, 2017, Cultural Resource Reconnaissance of Approximately 23 Acres near Rutherford, Napa County, California (Three Twins, APN 025-380-017)
Exhibit D	PPI Engineering, November 9, 2018, Soil Loss Analysis, Three Twins Vineyard Track I ECP, APN 025-380-017
Exhibit E	PPI Engineering, October 29, 2018, Hydrologic Analysis, Three Twins Vineyard ECP – APN: 025-380-017
Exhibit F	O'Connor Environmental, Inc., December 3, 2018, Water Demand and Water Availability Analysis, Three Twins Vineyard 704 Greenfield Road, Ste. Helena, California 94558
Exhibit G	Agricultural Erosion Control Plan #P05-0121
Exhibit H	Project Revision Statement