

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:** Wappo Land Company LLC Vineyards Erosion Control Plan Application (ECPA) #P19-00037-ECPA
2. **Property Owner(s):** Robert W. Long
3. **Contact Person, Phone Number and Email:** Donald Barrella, Planner III, (707) 299-1338, Donald.Barrella@countyofnapa.org
4. **Project Location and APN:** 141 Long Ranch Road, St Helena, CA 94574, APN 030-220-044 (**Figures 1 and 2**)
5. **Project Sponsor:** Wappo Land Company LLC
135 Long Ranch Road
St. Helena, CA 94574

Agent: Mike Muelrath (Registered Professional Engineer No. 67435)
Applied Civil Engineering Incorporated
2074 West Lincoln Avenue
Napa, CA 94558
6. **General Plan Description:** Agriculture, Watershed and Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Description of Project:**

The proposed project involves the clearing of vegetation, earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 15.9 gross acres of vineyard (approximately 12.8 net acres) within two vineyard blocks located on one approximately 41.8 acre parcel (project parcel) (**Figure 3**). Block A would include approximately 14.3 gross acres (approximately 11.8 net acres) and Block B would include approximately 1.6 gross acres (approximately 1.0 net acre). The project also proposes a temporary area of disturbance of approximately 0.4 acre for water line installation from two project wells to two existing water tanks located on an adjacent property (APN 030-220-034, accessed through an easement) and for well access and utility installation. The vineyard is proposed to be developed over two years, with the first year consisting of land preparation and installation of drainage improvements, waterbars and rock energy dissipaters and the second year consisting of installation of irrigation and trellis systems and planting rootstock. Approximately 40 trees with diameter breast height (dbh) greater than 6 inches are proposed for removal. Rock removed during the clearing of the land would be used in the construction of erosion and runoff control measures and road base, or disposed of within the parcel or adjacent parcels owned by the applicant. There would be no transport of spoils off-site. Rock that is not used immediately would be stockpiled for future use either inside the proposed clearing limits or within existing vineyard rock stockpiles located on the adjacent parcel to the west owned by the applicant (APN 030-220-043: 135 Long Ranch Road: #98210-ECPA). The vineyard would be irrigated via a drip irrigation system with water from an existing onsite well and a proposed well. Well water would be pumped to two existing water tanks located on an adjacent property (accessed through an easement) that are part of an existing irrigation distribution system for adjacent parcels. Frost protection methods include the use of wind machines and late pruning. Deer fence would be installed along the perimeter of the development area. The project also proposes the installation of three new culverts (**Exhibit A-1**).

Erosion Control Measures: Temporary erosion control measures include water bars, silt fence barriers, straw wattles, erosion control blankets, rock rip-rap energy dissipaters, and the application of straw mulch (at a rate of 3,000 pounds per acre). Permanent erosion control measures include outslowed vineyard avenues and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80%, vineyard avenues will also maintain a minimum vegetative cover of 80%. Details of the proposed erosion control measures are provided in the Wappo Land Company LLC Vineyard Development Erosion Control Plan (ECP) #P19-00037, dated May 2019, prepared by Michael R. Muelrath (Registered Professional Engineer No. 67435) of Applied Civil Engineering Incorporated, Napa, California (**Exhibit A-1**) and in the Wappo Land Company LLC Vineyard Development ECP Narrative (**Exhibit A-2**).

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

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

- a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 6.5 by 3.5-foot spacing pattern for an approximate vine density of 1,915 vines per acre (or approximately 24,512 vines within the 12.8 net acres of proposed planted vineyard).
- 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. Weed control under vine rows would be primarily via mechanical means such as string trimmers and minimal herbicide usage. Herbicide used to control weeds within vineyard blocks would be limited to spraying post-emergent herbicide in a narrow 18-inch maximum width strip spray, and no herbicides would be used in the vineyard avenues.
- d. Environmental Commitments - the owner/applicant, as part of this ECPA, has included the following project components to minimize the impacts to the surrounding environment¹:
 - i. Special-status plant protection: Creation of a 3.3 acre Preservation Area located in the northeast corner of the parcel for the avoidance and protection of special-status plant species and habitat occurring on the property.
 - ii. Archeological resource protection: The cessation of work if archeological, cultural, or historical resources are discovered during project construction.
 - iii. Air quality protection: Implementation of standard air quality and construction best management practices (BMPs) consistent with Bay Area Air Quality Management District (BAAQMD) measures identified in Table 8-1 of the BAAQMD CEQA Guidelines.
 - iv. Passerine bird protection: Implementation of the following protection measures i) pre-construction surveys for work conducted between April 1 and October 15; ii) implementation of no disturbance buffer from active nests if identified; and, iii) re-conducting surveys if a 15 day lapse in construction occurs.
 - v. Bat protection: Implementation of the following protection measures i) pre-construction bat habitat and surveys prior to the commencement of development activities; and, ii) development and implementation of avoidance plan if bats are present.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P19-00037-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on # P19-00037-ECPA. The proposed project is anticipated to be developed in one phase; however, it should be noted that the entire project may not be developed in one phase and development of any subsequent phase would follow the implementation schedule outlined in **Table 1**, and/or development of individual vineyard blocks (or portions thereof) could be accomplished in one year resulting in activities identified in **Table 1** and **Table 2** occurring in the same year.

Table 1 – Implementation Schedule

April 1	Year 1: Commence clearing and tillage operations and install drainage improvements, waterbars, and rock energy dissipaters. Year 2: Install irrigation and trellis systems and plant rootstock.
September 1 ¹	Year 1: All tillage complete and drainage improvements installed and complete.
September 15	All winterization complete, including seeding, silt fence, straw wattle, and straw mulching installation.
September to April of subsequent year	Maintain erosion and runoff control measures during the rainy season. Reseed and mulch cover crop as needed to maintain appropriate cover of any erosion damaged areas.

¹ During the winter months in municipal watersheds (September 1 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code Sections 18.108.027(C) and 18.108.070(L).

² During the winter months (October 15 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Sections 18.108.027(C) and 18.108.070(L).

Table 2 – Annual Operations Schedule

January to March	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.
September 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 Wappo Land Company LLC Vineyard Development ECP prepared by Applied Civil Engineering Incorporated. The proposed project is further described in the application materials including the Supplemental Project

¹ See **Exhibit A-1** and **Section IV (Biological Resources)** for additional details regarding these project components. Additionally, the complete language of these ECPA Environmental Commitment can be found in **Exhibit A-1** under 'Environmental Commitments'

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).

9. Describe the environmental setting and surrounding land uses.

The propose project would occur on one parcel totaling approximately 41.8 acres located at 141 Long Ranch Road, St. Helena, California (**Figures 1-3**). Improvements on the parcel include a paved private driveway (Long Ranch Road), a groundwater well, and underground utility lines. Surrounding land uses consist predominantly of vineyards/agriculture, wineries, scattered residences, and undeveloped land.

The project parcel is located approximately 4 miles north of the town of Yountville and approximately 6.5 miles southeast from St. Helena in Napa County. The parcel is located within the Lake Hennessy and Vinehill Creek drainages: - the Lake Hennessy drainage is located within the larger Lake Hennessey Sensitive Domestic Water Supply Drainage. Lake Hennessey is located approximately 1 mile north of the parcel. There are two ephemeral streams near the parcel's southern border (outside of the development area), one of which is an unnamed blue-line stream on the Yountville U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (WRA, May 8, 2019 - **Exhibit B-1**). Drainage in the Lake Hennessey watershed portion of the project parcel flows northeast, and the remainder in the Vinehill Creek drainage flows southeast.

General topography of the area consists of gentle to steep slopes ranging from less than 5% to in excess of 30%. Slopes within the project area (i.e., development area or proposed clearing limits) are gentle to moderate and range from 13% to 21%, with an overall average slope of 17%. Elevations within the project area range from approximately 850 to 1,270 feet above mean sea level (msl).

No potentially active faults have been mapped on the project parcel; the nearest active faults are two undifferentiated Quaternary Soda Creek faults less than 1 mile southwest and east of the parcel. No landslides or large-scale slope instabilities have been identified within a project parcel (RGH Consultants 2018 - **Exhibit F**). Soils within the project parcel have been classified according to the U.S. Department of Agriculture (USDA) Soil Conservation Service Soil Survey as Henneke gravelly loam 30% to 75% slopes, Rock outcrop-Hambright complex 50% to 75% slopes, and Sobrante loam 5% to 30 and 30% to 50% slopes (Wappo Land Company LLC., ECP Narrative - **Exhibit A-1**).

The vegetation types in the area consist primarily of chaparral (i.e., shrubland), oak woodland, and grassland. Vegetation types on the parcel consists of approximately 0.22 acre of non-native grassland, 29.55 acres of chamise chaparral, 7.47 acres of coast live oak woodland, and 3.18 acres of interior live oak chaparral. The non-vegetation communities found on the project parcel consist of approximately 0.09 acre of barren/rock, 1.07 acres of developed/paved road, and 0.18 acre of dirt road (WRA, May 8, 2019 - **Exhibit B-2**).

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

Responsible (R) and Trustee (T) Agencies

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

Other Agencies Contacted

Napa County Resource Conservation District (RCD)
Yocha Dehe Wintun Nation
Mishewal Wappo Tribe of Alexander Valley

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

Notice of the proposed project was sent to Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on March 6, 2019, and Yocha Dehe Wintun Nation on March 19, 2019. On March 13, 2019, the County received a response letter from Middletown Rancheria indicating that they have no specific comments at this time; on May 13, 2019, the County sent notification to the Middletown Rancheria acknowledging their response letter and closing the consultation invitation. On April 2, 2019, the County received a response letter from Yocha Dehe indicating that the project site is not within the aboriginal territories of the Tribe and that they respectively decline any comment at this time. On May 13, 2019, the County sent notification to Yocha Dehe acknowledging their response letter and closing the consultation invitation. The Mishewal Wappo Tribe of Alexander Valley did not request consultation within the 30-day notification period and on May 13, 2019, the County sent a consultation closure notice to the Tribe. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

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 #P19-00037-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:

- Applied Civil Engineering Incorporated, May 2019, Erosion Control Plan, Wappo Land Company LLC Vineyard Development (**Exhibit A-1**)
- Applied Civil Engineering Incorporated, January 2019, Erosion Control Plan Narrative, Wappo Land Company LCC Vineyard Development (**Exhibit A-2**)
- WRA, Inc., February 2019, Biological Resources Reconnaissance Survey Report, Wappo Land Company LLC, 135 Long Ranch Road, Napa County, California (APNs: 030-220-044, -043) (**Exhibit B-1**)
- WRA, Inc., May 8, 2019, Wappo Land Company, Napa County ECP - Response to Napa County Comments on Biological Resources (File #P19-00037-ECPA) (**Exhibit B-2**)
- David A. Steiner, CPESC, CPSWQ, December 11, 2018, Hydrologic Analysis, Proposed Long Ranch Vineyard, Wappo Land Company Long Ranch Road, St. Helena, CA (**Exhibit C-1**)
- Applied Civil Engineering Incorporated, May 3, 2019, Culvert Hydrologic Analysis, Wappo Land Company LLC (**Exhibit C-2**)
- Richard C. Slade & Associates (RCS), January 25, 2019, Results of Napa County Tier 1 Water Availability Analysis, Long Ranch "Parcel 12" Vineyard Development, Long Ranch Road, Vicinity Pritchard Hill, Napa County, California (**Exhibit D-1**)
- RCS, April 12, 2019, Addendum to "Results of Napa County Tier 1 Water Availability, Long Ranch "Parcel 12" Vineyard Development, Long Ranch Road, Vicinity Pritchard Hill, Napa County, California" (**Exhibit D-2**)
- David A. Steiner, CPESC, CPSWQ, December 2018, Soil Loss Analysis, Long Ranch Vineyard Proposal (**Exhibit E-1**)
- David A. Steiner, CPESC, CPSWQ, 2019, Long Ranch Vineyard Proposal Soil Loss Analysis Pre- and Post-USLE Calculations (**Exhibit E-2**)
- RGH Consultants, July 23, 2018 (Revised December 3, 2018 and January 25, 2019), Landslide Hazard Evaluation, Wappo Land Company Vineyard Block A, Assessor's Parcel Number (APN) 030-220-044, Napa County, California (**Exhibit F**)
- Archaeological Resource Service, December 18, 2018, A Cultural Resources Evaluation of an Erosion Control Plan for Two Vineyard Blocks within Parcel Four, Wappo Land Company, Long Ranch Road, St. Helena, Napa County, California
- Site inspection conducted by Napa County Planning Division and Engineering Division staff on March 11, 2019.
- Napa County Geographic Information System (GIS) sensitivity maps/layers

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. Attached as **Exhibit G** is the signed Project Revision Statement.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

January 3, 2020

Date

Donald Barrella
Printed Name

Napa County Planning, Building and Environmental Services

ENVIRONMENTAL CHECKLIST FORM

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

Discussion

- a-b. The project site is located on a southwest sloping hillside in the Pritchard Hill area east of the Napa Valley and approximately 0.7 mile west of Silverado Trail, the closest County viewshed road (see photographs in the ECP - **Exhibit A-2**, and in the Biological Resource Reconnaissance Survey Report - **Exhibit B-1**). However, the topography is such that the project site is not visible from Silverado Trail; intervening hillsides block the sightline between this viewshed road and the project site. The site is located on a minor ridgeline that runs through the parcel from east to west, with the closest major ridgeline being located approximately 2 miles to the east; therefore, the development should not result in significant impacts to vistas, visual character, or scenic resources (Napa County GIS, Ridgelines Layer). The proposed project is not located within a scenic corridor (Napa County GIS, Scenic Corridors Layer). There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Although trees and vegetation would be removed with the proposed project (discussed in **Section IV [Biological Resources]** below), the project site is not visible from a state scenic highway, as there are no scenic highways in the area (Caltrans 2018 - http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm). The proposed project would have a less than significant impact on a scenic vista scenic highway, historic buildings, scenic resources trees, or rock outcrops for the reasons described above.
- 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, wineries, and residential uses. Given these factors, 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 property would require some lighted nighttime activities consistent with the level of nighttime activity already occurring in the surrounding area, which includes vineyard and agricultural land uses. Lighting would be in the form of headlights or downward directional lights on equipment being used during nighttime harvest. The proposed project would include nighttime harvest (typically from 2 a.m. to 6 a.m.) approximately 5 days per year and sulfur applications (typically from 1 a.m. to 3 a.m.) approximately 6 days per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new source of substantial light or glare, and would be consistent with surrounding land uses, and therefore have a less than significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. In determination whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resource Code Section 12220(g), timberland as defined in Public Resource Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a. The Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the project parcel as Other Land (i.e., not Prime Farmland, Unique Farmland or Farmland of Statewide Importance) with Unique Farmland in the vicinity. Vineyard development on areas designated Other Land or Unique Farmland would not be inconsistent with this designation and would not result in an impact to farmland within Napa County. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance resulting in no impact.
- b. The project site has a General Plan designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 15.9 gross acres (12.8 net acres) 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-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Neither the project parcel nor the project area contains forest land or coniferous forest (Napa County GIS, Vegetation and Sensitive Biotic Community layers; WRA February 2018). The project 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 would occur.
- e. The proposed project does not include the construction of roadways or other infrastructure that would result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would not have an impact on the agricultural or forest resources of Napa County.

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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. Bkdg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist.*, 62 Ca 4th 369. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA, and were posted on the BAAQMD website and included in the BAAQMD updated CEQA Guidelines (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 generally located in the hills bordering the eastern side of the Napa Valley southeast of the City of St. Helena, 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 proposed 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 (NO_x 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 PM_{2.5}). 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 of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards² for an approximately 560-acre vineyard development, Walt Ranch Vineyard³ for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards⁴ for an approximately 400-acre vineyard development.⁵

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

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

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 development¹	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to 14.53
Pounds per day: 150- to 250-acre vineyard development²	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development^{3,4}	4.6	42.3	5.21 ⁴	24.21 ⁴
Construction threshold	54	54	54	82
Operational Emissions				
Pounds per day: 400-acre vineyard operation¹	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard operation²	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard operation³	4.3	22.3	1.4	2.3
Operational threshold (lbs/day)	54	54	54	82
Tons per year (Metric)^{1,5}	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

¹ As identified in Circle-S EIR; ² As identified in Suscol Mountain EIR; ³ As identified in Walt Ranch EIR; ⁴ Includes dust and exhaust emissions; ⁵ Calculation based on 365 days of operation. Project emissions are anticipated to be less than identified as vineyard operations are seasonal in nature.

Sources: Circle-S Ranch Vineyard EIR 2011; Suscol Mountain Vineyard EIR 2013; Walt Ranch Vineyard EIR 2016; BAAQMD CEQA Guidelines May 2017.

Because this project's proposed 15.9 gross acre vineyard (approximately 12.8 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less than those identified in **Table 3** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality 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.

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.

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

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

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

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

- 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 FAQ⁶ or the PERP website⁷.

Given that installation of the proposed project is expected to generate emissions that are below identified thresholds and result in less temporary construction emissions than those identified in **Table 3**, in addition given that the proposed project would contain other features that minimize fugitive dust (such as vineyard cover crop) and 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), the implementation of the proposed project would result in less than significant air quality impacts, and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

The implementation of Air Quality BMPs identified in the conditions of approval above and implementation of **Mitigation Measure BR-1** which would reduce the project acreage by approximately 3.18 acres are anticipated to further reduce potential less than significant air quality effects associated with construction and operation of the proposed project.

- 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 surrounding the project site include agricultural areas, undeveloped land, and rural residential. The closest school (Yountville Elementary School) is located approximately 4.4 miles south of the project site in Yountville (Napa County GIS, School Layer). The closest offsite residences are located approximately 1,430 feet to the northeast and approximately 2,270 feet to the southeast. The closest residential area (Yountville) is approximately 4 miles south of the project site.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of grading and farm equipment (e.g., tractors, trucks, and ATV's). These sources would be temporary and/or seasonal in nature and would occur a minimum of 4 miles from the closest school and 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.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

⁷ <http://www.arb.ca.gov/portable/portable.htm>

or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

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

- WRA, February 2019, Biological Resources Reconnaissance Survey Report Wappo Land Company LCC 135 Long Ranch Road, Napa County, California (APNs: 030-220-044, -043) (**Exhibit B-1**)
- WRA, May 8, 2019, Wappo Land Company, Napa County ECP – Response to Napa County Comments on Biological Resources (File #P19-00037-ECPA) (**Exhibit B-2**)

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

WRA conducted protocol level special-status plant surveys on the subject parcel and an adjacent parcel owned by the applicant (APN 030-220-043) resulting in an 88.7 acre ‘Study Area’ on: May 10, June 14, and October 25, 2017 and March 12 and June 27, 2018. The surveys were completed to determine: the presence of sensitive biological communities; the potential for biological communities on site to support special-status plant or wildlife species; and the presence of sensitive natural resources protected by local, state, or federal laws and regulations within the larger Wappo Land Company holding: the acreages identified **Table 4** are those that occur within the 41.8 acre project parcel (APN 030-220-024). The surveys corresponded 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 currently 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 California Natural Diversity Database (CNDDDB) (CDFW, 2019), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2018), and the USFWS List of Federal Endangered and Threatened Species that may be Affected by projects in the St. Helena, Chiles Valley, Lake Berryessa, Rutherford, Yountville, Capell Valley, Sonoma, Napa, and Mt. George quadrangles (USFWS, 2018).

The parcel consists of the following upland biological communities (or habitat types): chamise chaparral, coast live oak woodland, interior live oak chaparral, developed/paved/dirt road, non-native grassland, and barren/rock areas. The southern portion of the parcel also contains two ephemeral streams. Oak woodland and ephemeral streams are considered sensitive habitat types. The habitats and their acreages are shown in **Table 4**.

Table 4 – Biological Communities and Habitat Types on the Project Parcel⁸

Biological Communities or Habitat Type	Pre-Project Conditions (acres)
Chamise Chaparral	29.55
Coast Live Oak Woodland	7.47
Interior Live Oak Chaparral	3.18
Developed/Paved/Dirt Road	1.25
Non-Native Annual Grassland	0.22
Barren/Rock	0.09

Source: WRA, February 2019

⁸ APN 030-220-044

a. Special-Status Plants:

Based upon a review of the resources databases listed in **Exhibit B-1**, 82 special-status plant species have been documented in the vicinity of the project area. Occurrence records of these species in CNDDDB within a 5-mile radius of the project area are depicted in **Exhibit B-1** Figure 3. Thirty-two special-status plant species have the potential to occur in the project parcel and adjacent parcel owned by the applicant (**Exhibit B-1**). Results of a protocol-level plant survey determined that six special-status plant species are present within the project parcel: narrow-anthered brodiaea (*Brodiaea leptandra*), holly-leaved ceanothus (*Ceanothus purpureus*), Greene's narrow-leaved daisy (*Erigeron greenei*), Nodding harmonia (*Harmonia nutans*), Sharsmith's western flax (*Hesperolinon sharsmithiae*), and green monardella (*Monardella viridis*). Greene's narrow-leaved daisy, narrow-anthered brodiaea, holly-leaved ceanothus, and Sharsmith's western flax are CNPS California Rare Plant Rank (CRPR) List 1B species, which are considered "Rare, Threatened, or Endangered in California and Elsewhere" and are fairly threatened in California (i.e., moderate degree/immediacy of threat). Nodding harmonia and green monardella are CRPR List 4 species, meaning that they are of limited distribution or infrequent throughout a broader area of California; although they are not considered under CEQA, impacts to these species may be considered sensitive by Napa County.

CRPR List 1B species meet the definition of Section 1901, Chapter 10 of the Native Plant Protection Act, or Sections 2062 and 2067 of the California Endangered Species act of the California Fish and Game Code (CFGC), and are eligible for state listing. While holly-leaved ceanothus, narrow-anthered brodiaea, Greene's narrow-leaved daisy and Sharsmith's western flax are not state or federally listed species at this time, these species and their associated habitat are of limited distribution locally within Napa County and warrant protection through applicable General Plan Goals and Policies. Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is encouraged by Napa County General Plan Goal CON-3⁹. Additionally, pursuant to Napa County General Plan Policy CON-13¹⁰, the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

Holly-leaved ceanothus is an evergreen shrub in the buckhorn family (Rhamnaceae) that blooms from February to April, but is typically identifiable by vegetative structures throughout the year. It typically occurs on rocky slopes underlain by volcanic substrate in chaparral and cismontane woodland habitat at elevations ranging from 390 to 2,080 feet above msl. Approximately 18.41 acres in several subpopulations occur within the project parcel. Of this total, approximately 5.56 acres (approximately 30%) fall within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

Narrow-anthered brodiaea is a perennial herb in the brodiaea family (Themidaceae) that blooms from May to July. It typically occurs in broadleaf upland forest, chaparral, and lower montane coniferous forest habitat at elevations ranging from 360 to 3,000 feet above msl. Soil survey data from documented locations suggest this species is associated with gravelly loam and clay loam substrates derived from rhyolites, metavolcanics, and serpentine. Approximately 0.31 acre occur within the project parcel. Of this total, approximately 0.06 acre (approximately 18%) fall within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

Sharsmith's western flax is an annual herb in the flax (Linaceae) family that blooms from May through July. It typically occurs on serpentinite open chaparral habitat ranging in elevations from 884 to 1,000 feet above msl. Approximately 2.64 acres occur within the project parcel. Of this total, approximately 0.48 acre (approximately 18%) fall within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

Green monardella is a perennial rhizomatous herb in the mint (Lamiaceae) family that blooms from June through September. It typically occurs in broadleafed upland forest, chaparral, and cismontane woodland habitat at elevations ranging from 300 to 3,100 feet above msl. Approximately 0.03 acre occur within the project parcel, none of which falls within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

Greene's narrow-leaved daisy is a perennial forb in the sunflower family (Asteraceae) that blooms from May to September. It typically occurs on rocky substrate derived from volcanics or serpentine within shrubby vegetation in chaparral habitat at elevations ranging from 260 to 3270 feet above msl. Approximately 0.04 acre occur within the project parcel, none of which fall within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

Nodding harmonia is an annual forb in the sunflower family (Asteraceae) that blooms from March through May. It typically occurs on rocky or gravelly substrates derived from volcanic rock within chaparral and cismontane woodland habitat at elevations ranging from 240 to

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

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

3,170 feet above msl. Approximately 0.03 acre occur within the project parcel, none of which fall within the development area (WRA, May 8, 2019 - **Exhibit B-2**).

The removal of these special-status plant species and their habitat would be inconsistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal Con-3 as it does not protect for the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be avoided while allowing for up to approximately 12.8 net acres of agriculture on the project parcel; Policy CON-17¹¹ because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is not prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it does not preserve natural habitat or existing vegetation, and adversely affects sensitive, rare, threatened or endangered plants. This would be a significant impact.

The chamise chaparral, and to a lesser extent the coast live woodland, within the project parcel are considered potential special-status species habitat because they contain the biological and ecological characteristics necessary to support special-status plant species populations and individuals. Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible to provide oak woodland and wildlife habit, slope stabilization, soil protection and species diversity. Policy CON-24c specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. The project parcel contains approximately 7.47 acres of coast live oak woodland, with approximately 2.12 acres (approximately 28%) occurring within the proposed development area. The project parcel contains approximately 29.55 acres of chamise chaparral, with approximately 10.34 acres (approximately 35%) occurring within the proposed development area. The project as proposed would remove approximately 12.46 acres of the project parcel's ±37.02 acres (or ±34%) special-status plant species habitat, approximately 6.10 acres of which contains special-status plant populations and individuals. This would be both a potentially significant direct impact and cumulative impact as a result of the project. The acreages of each biological community to be removed within the development area is listed in **Table 5**, and the acreages of each special-status plant population to be removed within the development area is listed in **Table 5A**. These tables also show increased resource avoidance as a result of implementation of **Mitigation Measure BR-1** further described below.

Table 5 – Retention of Biological Communities between the Original and Mitigated Proposed Projects

Biological Communities	Total Acres in the Project Parcel	Original Proposed Vineyard Blocks		Mitigated Proposed Vineyard Blocks	
		Acreage	% Retention	Acreage	% Retention
Chamise Chaparral	29.55	10.34	65%	7.51	75%
Coast Live Oak Woodland	7.47	2.12	72%	2.12	72%
Interior Live Oak Chaparral	3.18	3.12	2%	2.76	13%
Developed/Dirt Roads	1.25	0.14	89%	No Change	
Non-Native Grassland	0.22	0.11	50%	No Change	

Source: WRA, February and May 2019, and Napa County October 2019 (Figure 4)

Table 5A – Retention of Special-Status Plants between the Original and Mitigated Proposed Projects

Special-status plants	Total Acres in the Project Parcel	Original Proposed Vineyard Blocks		Mitigated Proposed Vineyard Blocks	
		Acreage	Retention	Acreage	% Retention
Green monardella	0.03	0	100%	No Change	
Greene's narrow-leaved daisy	0.04	0	100%	No Change	
Holly-leaved ceanothus	18.41	5.56	70%	3.56	80%
Nodding harmonia	0.03	0	100%	No Change	
Narrow-anthered brodiaea	0.31	0.06	82%	0.0	100%
Sharsmith's western flax	2.64	0.48	82%	0.15	94%

Sources: WRA, February and May 2019; and Napa County October 2019 (Figure 4)

To reduce potential impacts to special-status plant species to a less than significant level, **Mitigation Measure BR-1** would be implemented to increase avoidance and retention of special-status plant species and associated habitat. **Mitigation Measure BR-1** would remove approximately 3.18 acres from the project area that contains holly-leaved ceanothus, sharsmith's western flax, and narrow-anthered brodiaea consisting of the following area: Block B (1.6 gross acres) and approximately 1.58 acres of the eastern end of Block A as shown in **Figure 4 (Mitigated Project)**. Implementation of this measure would result in avoidance of approximately 75% (±22 acres) of potential special-status plant species habitat (i.e. chamise chaparral) and avoidance of 80% to 100% of the special-status plant species occurring on the property. The area removed as a result of this mitigation measure would be added to the adjacent 3.3 acre Preservation Area proposed as part of the project resulting in an approximate 6.48 acre Preservation Area (see **Figure 4**).

In order to mitigate potentially significant cumulative impacts to special-status plant species and their habitat, and adequately preserve special-status plant species and their habitat, the southern portion of the parcel containing chamise chaparral and coast live oak woodland

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

also would be established as an oak woodland preservation area containing 12.7 acres; the oak woodland preservation area would extend to the adjacent parcel (APN 030-220-043) and would include an additional 1.8 acres (totaling 14.5 acres). This would protect the green monardella, Greene's narrow-leaved daisy, and nodding harmonia populations that occur in the southern portion of the parcel. A summary of the retention of biological communities and acreages of special-status plants located therein, for both the original proposed project and revised project after implementation of **Mitigation Measure BR-1** is provided in **Table 5 and 5A**, and shown in **Figure 4 (Mitigated Project)**. Implementation of **Mitigation Measure BR-1** would reduce impacts to special-status plant species and associated habitat to a less than significant level because it would: i) avoid and preserve approximately 74% of the of the project parcel's special-status plant species habitat; ii) avoid and preserve approximately 80% to 100% of the project parcels' special-status plant populations/individuals; iii) result in consistency with General Plan Goal CON-3 and Policies CON-13 and CON-17, and Conservation Regulations (NCC Chapter 18.108), because it would preserve the special-status plants and their habitat; and iv) result in consistency with Goal CON-2¹¹ because it would assist in maintaining the existing level of biodiversity in the County, as well as contribute to minimization of potential cumulative impacts associated with the loss of special-status plant species and associated habitat due to agricultural conversion projects. Implementation of this mitigation measure would also effectively offset the loss of special-status plants and habitat located within the mitigated project; therefore, plant replacement is not included in this measure. **Mitigation Measure BR-1** also requires the flagging of plant populations adjacent to the proposed clearing limits to prevent inadvertent impacts, and conducting a preconstruction botanical survey prior to installation of the water line within the proposed preservation area and rerouting the line if needed to minimize impacts to special-status plants.

To reduce potential impacts to the coast live oak woodland biological community to a less than significant level, **Mitigation Measure BR-1** would be implemented to comply with Napa County General Plan Conservation Element Policy Con-24 (discussed further under question e). The project parcel contains approximately 7.47 acres of coast live oak woodland. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy Con 24(c)¹²(i.e. 2:1 preservation ratio), up to approximately 2.49 acres can be converted to vineyard. The development area contains 2.12 acres of coast live oak woodland and the Oak Woodland Preservation Area (14.5 acres) will be configured pursuant to **Mitigation Measure BR-1** so that it contains a total of 4.25 acres of coast live oak woodland, consistent with Policy CON-24c.

Furthermore, implementation of **Mitigation Measure BR-1** would not substantially affect the feasibility of the proposed project or the continued viability of agricultural use of the project parcel, in that it would allow the owner/Permittee to develop approximately 12.36 gross acres of new vineyard, on the ±41.8 acre parcel.

Mitigation Measure BR-1: The owner/permittee shall implement to following measures to minimize potential impacts to special-status plant species (i.e., holly-leaved ceanothus, narrow-anthered brodiaea, Sharsmith's western flax, green monardella, Greene's narrow-leaved daisy, and nodding harmonia) and their habitat:

- a. Revise Erosion Control Plan #P19-00037-ECPA prior to approval to i) remove Vineyard Block B (1.6 gross acres) and approximately 1.58 acres of the eastern end of Block A (totaling ±3.18 acres) consistent with the modified block configuration as shown in the Napa County Mitigated Project Figure (**Figure 4**), and ii) revise proposed wildlife exclusion fencing layout to limit any new wildlife exclusion fencing to the periphery of Vineyard Block A as modified by this mitigation measure.
- b. Erosion Control Plan #P19-00037-ECPA prior to approval to i) identify a 6.48 acre Preservation Area in the northeastern portion of the parcel, consisting of the Project's a 3.3 acre Preservation Area and the ±3.18 acres avoided pursuant to **Mitigation Measure BR-1(a)**, and ii) identify a 14.5 acre Oak Woodland Preservation Area in the southern portion of the parcel.
- c. The owner/permittee shall implement the following measure to permanently preserve special-status plant species and associated habitat within the project holding, and to comply with Policy CON-24(c), 2:1 preservation ratio. The Project Preservation Areas, totaling a minimum of 21.9 acres, which includes the 6.48 acre Preservation Area and the 14.5 acre Oak Woodland Preservation Area (so that a minimum of 4.24 acres of coast live oak woodland occurs within the Oak Woodland Preservation Area), shall be designated for preservation in a mitigation 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 habitat (including, but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The owner/Permittee shall record the mitigation easement within 60 days of approval of #P19-00037-ECPA by the County; however, in no case shall the ECPA be initiated until said mitigation easement is recorded.
- d. Prior to the commencement of earthmoving activities associated with #P19-00037-ECPA, the northern and eastern clearing limits shall be accurately flagged by an engineer using GPS equipment, and the vineyard boundary demarcated with temporary construction flagging/fencing. The precise locations of said demarcation shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. The flagging/fencing may be removed following construction; however, signage at regular intervals shall be installed informing vineyard personnel of the sensitivity of the Preservation Area,

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

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

and herbicide use shall be limited to those products that pose no negative affect to evergreen shrubs (i.e., holly-leaved ceanothus) and forbs (i.e., narrow-leaved brodiaea and Sharsmith's western flax).

- e. Prior to commencement of earthmoving activities associated with installation of the water line authorized under #P19-00037-ECPA, the footprint of the water line and associated disturbance areas shall be surveyed by a qualified biologist or botanist, and any special-status plants found within the footprint shall be mapped. To the fullest extent practicable, removal of special-status plants shall be avoided and minimized via adjustments to the precise installation location of the water line. In accordance with Napa County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any special-status plants removed as a result of water line installation shall be replaced on-site at a ratio of 2:1 at locations with similar habitat. For such removal a mitigation plan shall be prepared by a qualified botanist or ecologist for review and approval by the Director prior to commencement of earthmoving activities associated with #P19-00037-ECPA. At a minimum, the mitigation plan shall include i) a site plan showing the locations where replacement plants will be planted in suitable habitat within the project parcel, ii) a plant pallet composed the special-status plans specie(s) being removed including sizes and/or application rates: seed mixes shall not contain species known to be noxious weeds and any non-native grasses should be sterile varieties, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation schedule, vi) performance standards with a minimum success rate of 80%, and vii) and monitoring schedule for a period of at least three years to ensure success criteria are met. Additionally, to preserve the local soil characteristics and seed bank, all native soil that is excavated/disrupted as a result of water line installation shall be retained and replaced en situ; no imported (off-site) soil shall be utilized or introduced within the water line disturbance area.
- f. In accordance with Napa County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any holly-leaved ceanothus, narrow-anthered brodiaea, Sharsmith's western flax, green monardella, Greene's narrow-leaved daisy, or nodding harmonia plants/populations inadvertently removed as a result of vineyard development authorized under # P19-00037-ECPA shall be replaced on-site at a ratio of 2:1 at locations within similar habitat. For such removal a replacement plan shall be prepared by a qualified botanist or ecologist for review and approval by the Director prior to vineyard planting. At a minimum, the replacement plan shall include i) a site plan showing the locations where replacement plants will be planted, ii) a plant pallet composed the special-status plans specie(s) being removed including sizes and/or application rates: seed mixes shall not contain species known to be noxious weeds and any non-native grasses should be sterile varieties iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation schedule, vi) performance standards with a minimum success rate of 80%, and vii) and monitoring schedule for a period of at least three years to ensure success criteria are met.

Special-Status Animals: One California fully protected wildlife species has the potential to occur within the project area: white-tailed kite (*Elanus leucurus*).

White-tailed kite is a diurnal raptor that is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk, 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk, 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The project area provides suitable year-round habitat for white tailed kites, including stands of oaks for nesting and open areas in close proximity for foraging. The species was not observed during the reconnaissance-level biological surveys (WRA, February 2019 - **Exhibit B-1**).

Migratory birds have the potential to nest within the trees throughout the development area. Potential indirect impacts resulting from temporary and intermittent increases in noise levels may cause nest and roost abandonment and death of young or loss of reproductive potential at active nests/roosts located near project activities.

To avoid potential impacts to bird and raptor species, the owner/permittee has included protection measures (Environmental Commitments) as part of the project so that these species would not be adversely affected during project implementation (see **Section 8 'Project Description'** of this Initial Study and **Exhibit A** for details). To ensure the implementation of the project's Environmental Commitments are consistent with County and CDFW protocol and practice, the following conditions of approval will be implemented, should the project be approved.

Environmental Commitment, Bird protection condition: The Permittee shall revise Erosion Control Plan #P16-00337-ECPA prior to approval to include the following measures to protect bird species 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 October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas (typically within 500 feet of project activities). The preconstruction

survey shall be conducted no earlier than 14 days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 14 days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.

- b. After commencement of work if there is a period of no work activity of five days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
- e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

While impacts to special-status bat species are not expected to occur within the project area due to the lack of suitable habitat (WRA February and May 2019), there is the potential for bat species to occupy the project area prior to commencement of the project, should the project be approved. To avoid potential impacts to bat species, including special-status bat species, the owner/applicant has included protection measures (Environmental Commitments) in the project so that these species would not be adversely affected during project implementation (**Section 8 'Project Description'** and **Exhibit A**). To ensure the implementation of the proposed Environmental Commitments are consistent with, and in accordance with County and CDFW) protocol and practice, the following conditions of approval will be implemented, should the project be approved.

Environmental Commitment, Bat protection condition: The Permittee shall revise Erosion Control Plan #P19-00037-ECPA prior to approval to include the following measures to protect special-status bat species:

- a. 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 within 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 habit 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.

As such, the proposed project with its Environmental Commitments (as modified herein and implemented as conditions of approval, should the project be approved) would result in less than significant impacts to special-status bird and bat species.

- b. The parcel contains coast live oak woodland and ephemeral streams, which are considered sensitive habitats. Coast live oak woodlands occur in the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County, typically situated on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content. The project parcel contains approximately 7.47 acres of coast live oak woodland, with 2.12 acres (approximately 28%) occurring within the proposed development area (WRA, February 2019 - **Exhibit B-1** and May 8, 2019 - **Exhibit B-2**).

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

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

With the implementation of **Mitigation Measure BR-1**, potential impacts to coast live oak woodland would be reduced to a less than significant level by permanently retaining 4.98 acres of woodland onsite (consistent with the 2:1 preservation ratio requirement).

Napa County Code Section 18.108.030 defines a stream as a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the USGS maps most recently published (known as a blue-line stream), or any replacement to that symbol; any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic vegetation, riparian vegetation, or woody-vegetation including tree species greater than 10 feet in height; and those watercourses listed in Resolution No. 94-19. Two primary drainages are located within the project parcel, with the easternmost stream meeting the County's stream definition. Neither of the streams are located within the proposed development area (and are located a distance greater than 500 feet from the proposed development area), and both would be protected with the establishment of the oak woodland preservation area discussed in **Mitigation Measure BR-1**. See **Section X.c. (Hydrology and Water Quality)** for additional disclosure and analysis of potential impacts to Napa County streams.

- c. Seasonal wetland generally denotes areas where the soil is seasonally saturated and/or inundated by fresh water for a significant portion of the wet season, and then seasonally dry during the dry season. To be classified as "wetland," the duration of saturation and/or inundation must be long enough to cause the soils and vegetation to become altered and adapted to the wetland conditions. Varying degrees of pooling or ponding, and saturation will produce different soil and vegetative responses. These soil and vegetative clues, as well as hydrological features, are used to define the wetland type. Seasonal wetlands typically take the form of shallow depressions and swales that may be intermixed with a variety of upland habitat types. No seasonal wetlands or vernal pools have been identified on the subject parcel or within the project area (WRA, February 2019 - **Exhibit B-1**). Therefore, no impacts to wetlands would occur.
- d. There is no existing fencing within the project parcel. Proposed deer fence would be installed around the perimeter of the new vineyard development area (Blocks A and B) and would be 6 feet by 8 feet tall wire mesh.

The project area is located within a mapped "Essential Connectivity Area," specifically a large, north-south oriented tract of land east of Napa Valley (CDFW and Caltrans, 2010). The project area is located near the western edge of this mapped area, which is approximately 9.1 miles wide in that vicinity. At the scale of landscape linkages, this tract provides connectivity between baylands of San Pablo Bay and areas from northern Napa County northward. Given the relatively small size of the project area (relative to the width of the corridor tract) and the lack of apparent development impacts within the more central portion of this tract, agricultural expansion within the project area is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. At a more local scale, the project parcel provides connectivity between a patchwork of undeveloped lands (primarily chaparral, grassland, and woodlands), and agricultural (vineyards) and low-density, rural developments. While development of the project as proposed would result in the northeastern portion of the site having reduced potential for on-site wildlife movement, the retention of chaparral in the 4.9 acre preservation area discussed in **Mitigation Measure BR-1** and removal of Block B would allow for continued local wildlife movement, less fragmentation of on-site chaparral, and would allow for direct connectivity with similar habitats on neighboring properties, including an adjacent 4.76-acre chamise chaparral habitat conservation area established to the east of the project parcel (APN 032-010-071; Berberian #98328-ECPA, approved April 22, 2003). Maintaining this connectivity should provide for continued cross-pollination and gene flow. Furthermore, the adjacent properties are composed of the same habitats that support a similar suite of plants, including those special-status plants documented on the property. Retention of the majority of documented special-status plants and the connected habitat conservation blocks, special-status species within the area are expected to maintain viable populations both on the property and, more broadly, in the region.

The installation of the deer fence as proposed would effectively "dead end" the property and would not allow the area to function as a local movement corridor for wildlife. With implementation of **Mitigation Measure BR-1**, impacts to wildlife and wildlife movement would be less than significant. The mitigated project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity.

Wildlife nursery sites were not identified in the project parcel; thus the proposed project would have no impact to wildlife nursery sites. While the proposed fencing and implementation of **Mitigation Measure BR-1**, would not result in significant impacts to wildlife movement

and use, in order to further 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 shall be implemented, should the project be approved.

Fencing – Conditions of Approval:

The owner/permittee shall revise Erosion Control Plan # P19-00037-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 #P19-00037-ECPA, and include the following components:

- New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
- Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape.
- Any modifications to the location of deer fencing as specified in Erosion Control Plan #P19-00037-ECPA pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited, and would require County review and approval to ensure the modified deer fencing location/plan would not result in potential impacts to wildlife movement.

- e. Because a portion of the project site is located in the Lake Hennessey Sensitive Domestic Water Supply Drainage, pursuant to NCC Section 18.108.027(B) (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 60% of the tree canopy and a minimum of 40% of the brush/shrub cover existing on the parcel within the Lake Hennessey Sensitive Domestic Water Supply Drainage in 1993 is required to be retained as part of the project. Based on information provided by the applicant and review of historical aerial imagery, the portion of APN 030-220-044 within the Lake Hennessey Sensitive Domestic Water Supply Drainage (5.21 acres) was located within APNs 030-220-017 and -019 in 1993 and contained 64.5 acres of tree canopy cover and 88.9 acres of brush/shrub cover in 1993. Since 1993, approximately 3.7 acres of tree canopy cover and 8.2 acres of brush/shrub cover have been removed. The project as proposed would not remove additional tree canopy cover and would remove approximately 5.5 acres of brush/shrub cover, which would result in the retention of approximately 99% of the tree canopy cover in APN 030-220-017 and 64% of the tree canopy cover in APN 030-220-019, and 88% of the brush/shrub cover in APN 030-220-017 and 46% of the brush/shrub cover in APN 030-220-019 as it existed in 1993 within the Lake Hennessey Sensitive Domestic Water Supply Drainage (**Exhibit A-1**). This is within the minimum tree canopy and brush/shrub retention requirements for projects within a Sensitive Domestic Water Supply Drainage pursuant to NCC Section 18.108.027(B). Therefore, the project would be in compliance with Section 18.108.027(B). See the discussion below for an analysis of vegetation removal and retention based on current conditions.

Based on the Biological Resources Reconnaissance Survey, plant communities or alliances occurring within the project parcel include chamise chaparral (29.55 acres), coast live oak woodland (7.47 acres), interior live oak chaparral (3.18 acres), developed/paved/dirt (1.25 acres), non-native annual grassland (0.22 acre) and barren/rock (0.09 acre) (**Table 4**). The mitigated proposed project would result in the removal of 8.74 acres (70% retention) of chamise chaparral, 2.12 acres (72% retention) of coast live oak woodland, 3.12 acres (2% retention) of interior live oak chaparral, 0.14 acre (89% retention) of developed/paved/dirt, and 0.11 acres (50% retention) of non-native grasslands (**Table 5**).

In terms of numbers of trees to be removed as part of the proposed project, approximately 40 trees with a 6-inch diameter breast height (dbh) or greater would be removed. With implementation of **Mitigation Measure BR-1**, approximately 39 trees would be removed.

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

Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization and soil protection, and species diversity. General Plan Conservation Element 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. With implementation of **Mitigation Measure BR-1**, impacts to oak woodlands would be reduced to less than significant through permanent retention of 4.24 acres of woodland outside the proposed vineyard block.

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

Tree/Woodland Protection – Conditions of Approval:

- Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the project area (typically within approximately 50-feet of the project area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- Trees removed that are not within the boundary of the project and/or not identified for removal as part of # P19-00037-ECPA shall be replaced onsite with fifteen-gallon trees at a ratio of 2:1 at locations approved by the director.
- The owner/permittee shall refrain from severely trimming the trees and vegetation to be retained adjacent to the vineyard conversion area.

Additionally, as discussed in subsections (a) through (c) above, the proposed project is designed to avoid the streams and drainages, and with incorporated mitigation measures and conditions of approval, impacts to sensitive natural communities and special-status species would be less than significant. Therefore, the proposed project with conditions incorporated is consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108.

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

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

Discussion

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

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

- Archaeological Resource Service, December 18, 2018, A Cultural Resources Evaluation of an Erosion Control Plan for Two Vineyard Blocks within Parcel Four, Wappo Land Company, Long Ranch Road, St. Helena, Napa County, California.

Archaeological Resource Service conducted an archeological evaluation of the project parcel which included a check of information on file with the California Historical Resources Information System to determine presence or absence of previously recorded historic or prehistoric cultural resources; a check of relevant historic references to determine the potential for historic era archaeological deposits; contact with the Native American Heritage Commission to determine the presence or absence of listed Sacred Lands with the project vicinity; contact with all Native American organizations or individuals designated by the Native American Heritage Commission as interested parties for the project vicinity; and a surface reconnaissance survey of the all accessible parts of the project area to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

- a-b. The Cultural Resources Evaluation (Archaeological Resource Service, December 2018) conducted for the project parcel did not identify historical or archaeological resources on-site; therefore, the project would not result in any impacts to historical or archaeological resources.

Project approval, if granted, would be subject to the standard conditions identified below to protect cultural resources that may be discovered accidentally.

- b. The Cultural Resources Evaluation did not locate any human remains in the proposed development area 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, project approval, if granted, would be subject to the standard conditions identified below, which would ensure that potential impacts on human remains would be less than significant.

Cultural Resources – Conditions of Approval: Discovery of historical, archaeological, paleontological 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.

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

Discussion

Consistent with Public Resources Code Section 21100(b)(3), this impact analysis evaluates the potential for the 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 a total of approximately 10 months, with land clearing, tillage operations, and installation of drainage improvements, waterbars, and rock energy dissipaters occurring in the first year and vineyard irrigation occurring in the second year. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient 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 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 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 would need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation¹³. 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. Impacts would be less than significant.

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

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control

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

measures for agricultural development, but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and less than significant impact would occur. Additional information supporting this conclusion is identified below.

- i) No faults have been mapped on the project parcel, and the project parcel is not located on an active fault or within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. There are two fault traces of the Soda Creek fault existing approximately 0.26 mile southeast and approximately 0.45 mile east of the project parcel. Therefore, no impact would occur.
 - ii) Although the project parcel 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, impact would be less than significant.
 - iii) The project parcel is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project area as having very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, impact would be less than significant.
 - iv) Landslides, landslide deposits, and areas of instability have not been identified within the project parcel. A geological reconnaissance survey was performed; no large-scale slope instabilities, slope failures or landslide areas were observed within the proposed development area (RGH Consultants, July 23, 2018 - **Exhibit F**). Therefore, no impact would occur.
- b. The project parcel soils are mapped as Henneke gravelly loam 30% to 75% slopes, Rock outcrop-Hambright complex 50% to 75% slopes, and Sobrante loam 5% to 30% slopes and 30% to 50% slopes.

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

Soil loss calculations were prepared using the Universal Soil Loss Equation (USLE) in order to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through a no-till cover crop with vegetative cover densities of at least 80%. 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 David A. Steiner, CPESC, CPSWQ (**Exhibits E-1 and E-2**), the proposed conversion of approximately 15.9 acres of chaparral, non-native grassland, coast live oak woodland, and developed/dirt road to vineyard is anticipated to reduce soil loss, or surface erosion, within the project area as compared to existing conditions (**Table 6**). Under existing conditions, the annual soil loss is anticipated to average 38.19 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 15.36 tons per acre per year, or a reduction of approximately 59.78% as compared to existing conditions.

Table 6 – USLE Soil Loss Analysis

Vineyard Block Transect	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
I	7.35	4.49	-2.86	-38.91
II	8.57	3.25	-5.32	-62.08
III	10.21	3.68	-6.53	-63.96
IV	10.81	3.26	-7.55	-69.84
V	1.25	0.68	-0.57	-45.60
Vineyard Totals	38.19	15.36	-22.83	-59.78

Source: David A. Steiner, CPESC, CPSWQ Soil Loss Analysis, Long Ranch Vineyard Proposal (**Exhibits E-1 and E-2**)

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, silt fence barriers, straw mulching, and other practices as needed.

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

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

The following conditions shall be incorporated by referenced into Erosion Control Plan # P19-00037-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to straw wattles, rock-filled avenue and permanent no-till cover, shall be installed by October 15 during the same year that initial vineyard development occurs: for development areas located within the sensitive domestic watershed specified erosions control measures shall be installed by September 1. These requirements 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 (#P19-00037-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 function 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 strip sprayed, with a strip no wider than 1.5 feet (18 inches) wide at the base of vines, with post-emergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

For these reasons the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project 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 3.18 gross acres, it is anticipated that expected soil loss associated with the project would be further reduced than that shown in **Table 6**.

- 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 Rock outcrop-Hambright complex, which exhibits low to high shrink-swell potential, Henneke gravelly loam, which exhibits low to moderate shrink-swell potential, and Sobrante loam, which exhibits low 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 parcel. Due to the natures of the soils in the project parcel and the nature of the project (which would involve relatively shallow vineyard, ripping to a depth of approximately 24 to 48 inches), 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 fined shall be temporarily halted of diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

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 (CO₂), methane, ozone, and the fluorocarbons, which contribute to climate change. CO₂ is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD’s CEQA Guidelines. In this case CO₂ is used as the reference atom/compound to obtain atmospheric carbon CO₂ effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁶

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 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.¹⁷ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 15.9-acre vineyard development would be approximately 149.5 MT CO_{2e} (15.9 acres multiplied by 9.4 MT CO_{2e}).

¹⁶ “Carbon stock” refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO₂. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

¹⁷ 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.

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 15.9 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 666.18 MT C or approximately 2,444.88 CO_{2e} (Table 7).

Table 7 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Project Acreage	Carbon Storage/Stock per Acre (MT C/acre) ¹	Total Carbon Storage (MT)	Total Carbon Storage in MT CO _{2e}
Interior Live Oak Chaparral ²	3.12	95.1	296.71	1,088.93
Coast Live Oak Woodland	2.12	95.1	201.61	739.91
Grasslands	0.11	1.4	0.15	0.55
Shrubland/Chaparral ³	10.34	16.2	167.51	614.76
Developed/Landscaped ⁴	0.14	1.4	0.20	0.73
Total			666.18	2,444.88

¹ Includes 100% of soil carbon stock.

² For the purpose of these GHG calculations the carbon stocks associated with oak woodland is applied to the Interior Live Oak Chaparral vegetation type.

³ Includes Chamise Chaparral vegetation type.

⁴ For the purpose of these GHG calculations the carbon stock associated with grassland is applied to Developed/Landscaped lands.

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

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20-25% while others have suggested 50%.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 2,182.96 MT CO_{2e} (Table 8).

Table 8 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Project Acreage	Carbon Loss/Emission per Acre (MT C/acre) ¹	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO _{2e}
Interior Live Oak Chaparral ²	3.12	89.6	279.55	1,025.96
Coast Live Oak Woodland	2.12	89.6	189.95	697.12
Grasslands	0.11	0.8	0.09	0.33
Shrubland/Chaparral ³	10.34	12.1	125.11	459.15
Developed/Landscaped ⁴	0.14	0.8	0.11	0.40
Total			594.81	2,182.96

¹ Includes 50% of soil carbon stock.

² For the purpose of these GHG calculations the carbon stocks associated with oak woodland is applied to the Interior Live Oak Chaparral vegetation type.

³ Includes Chamise Chaparral vegetation type.

⁴ For the purpose of these GHG calculations the carbon stock associated with grassland is applied to Developed/Landscaped lands.

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

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor it is anticipated that Operational Equipment Emissions associated with the proposed 15.9-acre agricultural development would be approximately 10.7 MT CO_{2e} (15.9 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 the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that grasslands sequester a negligible quantity of CO₂ acre per year (essentially zero), shrubland/chaparral sequester a negligible quantity (essentially zero), and oak woodlands sequester 0.425 CO₂ acre per year. The developed/landscaped land use is not identified by the 2012 Draft CAP and is considered similar to grasslands (essentially zero). Because the 2012 Draft CAP does not identify sequestration factors for either grasslands, shrublands/chaparral, or developed/landscaped, the sequestration factor for Croplands of 0.057 MT C per

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.

acre per year has been attributed to the grassland, chaparral and developed/landscaped that are proposed for removal to provide the most conservative GHG emission estimate. The sequestration factor for oak woodlands of 0.425 MT C per acre per year has been attributed to the Interior Live Oak Chaparral that is proposed for removal. 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 of 2.83 CO₂ acre per year or 10.39 MT CO_{2e} per year¹⁴.

Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops, which are also photosynthetic plants, tends to result in less soil CO₂ loss from vineyard soils. Carbon sequestration loss would be further offset by the proposed vineyard, which would likely act as a sink for atmospheric CO₂, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. In addition to vines, the sequestration of atmospheric carbon is also achieved by the soil between vine rows through cover-cropping.

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 2,331.76 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 21.09 MT CO_{2e} per year (Table 9).

Table 9 – 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	148.80	Vehicles and Equipment	10.7
Vegetation and Soil	2,182.96	Loss of Sequestration	10.39
Total	2,331.76	Total	21.09

¹ For the purpose of these GHG calculations the annual sequestration factor associated with oak woodlands is applied to the Interior Live Oak Chaparral vegetation type. 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 2,331.76 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 0.13% 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. Furthermore, with the implementation of Mitigation Measure BR-1 the project would be reduced by approximately 3.18 acres, predominately consisting of chaparral vegetation type, which would reduce one time emissions by approximately 141.2 MT CO_{2e} and operational emissions by approximately 2.1 MT CO_{2e} per year thereby further reducing anticipated air quality impacts associated with vineyard development and ongoing vineyard operations

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 21.09 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 are considered less than significant.

¹⁴ 5.24 acres of oak woodland and Interior Live Oak Chaparral times 0.425 MT C = 2.23 MT C, 10.59 acres of grassland, chaparral and developed times 0.057 MT C = 0.60 MT C, totaling 2.83 MT C

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

Discussion

a-b. Installation of the proposed ECP and subsequent vineyard operation and maintenance would require a variety of equipment and vehicles that use fuel and other petroleum based products such as oil and transmission fluids, which are considered hazardous materials. Ongoing vineyard operations would also involve the transport and use of pesticides, 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).

No chemicals would be stored onsite; chemical storage and mixing would occur on an adjacent parcel owned by the applicant. Fertilizers would be applied as necessary to the proposed new vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be used for weed management. Project storage and staging areas would be located within proposed vineyard blocks (i.e. within clearing limits).

There are two primary drainages within the project parcel, one of which is an unnamed blue-line stream on the Yountville USGS 7.5-minute topographic quadrangle (WRA, May 8, 2019 - **Exhibit B-1**). Although these streams are likely jurisdictional under Section 404/401 of the Clean Water Act and Section 1602 of the CFGC, they are located outside of the proposed development area and neither stream would be impacted by the development of the proposed project.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) aquatic resources within the parcel are over 500 feet from the proposed development area; ii) project staging and storage areas would be over 500 feet from aquatic resources; 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, impacts associated with the use and transport of hazardous materials would be less than significant.

- c. The closest school (Yountville Elementary School) is located approximately 4.4 miles to the south of the project site in Yountville. 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 parcel is Angwin-Parrett Field, located approximately 8.40 miles north. No portion of the project parcel 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 proposed project. The project parcel is located in an area identified as having high fire severity (CALFIRE 2007 - <https://egis.fire.ca.gov/FHSZ/>). The risk of fire in vineyards is very low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project 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.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | | |
|------|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| ii. | Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. | Impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

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

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

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water Board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay RWQCB 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 plan¹⁵”; 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

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.

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 Board¹⁶.

There are two primary drainages within the project parcel, one of which is an unnamed blue-line stream on the Yountville USGS 7.5-minute topographic quadrangle (USGS 1978) and both drain off-site into Conn Creek. Although both streams are likely jurisdictional under Section 404 and 401 of the CWA and Section 1600 of the CFGC, they are outside of and greater than 500 feet from the proposed development area.

- 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 # P19-00037-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. 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 Plan recommended 18 Areas of Interest (AOIs) for additional groundwater level and water quality monitoring. Through GRAC's well owner and public outreach efforts, approximately 40 new wells have been added to the monitoring program within these areas. Groundwater Sustainability Objectives were developed and recommended by GRAC and adopted by the Board. The recommendations included the goal of developing sustainability objectives, provided a definition of sustainability, and explained the shared responsibility for Groundwater Sustainability and the important role of monitoring as a means to achieving groundwater sustainability.

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

A Water Availability Analysis (WAA) was prepared in order to determine if the proposed increase in water demand as a result of the proposed project would result in a significant impact to groundwater supplies (RCS, January 25, 2019 - **Exhibit D-1**). The WAA estimates the onsite groundwater recharge, overall availability, and use, both existing and proposed, in order to assess potential impact on groundwater. There are no known offsite wells located within 500 feet of the project well.

The project proposes to irrigate the vineyard from one onsite well in the eastern portion of the parcel and from a proposed new well to be installed approximately 150 feet southwest of the existing well (RCS, January 25, 2019 - **Exhibit D-1**). The project parcel is undeveloped and has no current irrigation demands. However, the existing well has been occasionally used as an alternate groundwater source to fill a nearby water storage tank that is used to irrigate offsite vineyards on adjacent parcels owned by the applicant. This practice would continue in the future provided the total groundwater extraction volume from the parcel does not exceed annual groundwater recharge.

During the first year of project development (prior to vineyard installation), water would be used irrigate the cover crop; the cover crop would not be irrigated after the first year and irrigation demand would not overlap with irrigation demand for the vineyard (and demand would be less than the volume needed to irrigate the vineyard). Typically, the annual vineyard irrigation season ranges from late May to September. Water use for frost protection is not proposed. After full development, irrigation of the approximately 13 net acres of vineyard

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

proposed would result in approximately 13 acre-feet per year (AF/year) of groundwater demand using 1 AF of water demand per acre of vines per year (**Table 10**). Typical water use estimates for vineyard irrigation is approximately 0.5 AF/acre of vine per year; however, the WAA notes that estimates are higher given several site-specific factors such as the parcel's rocky soils and hilly terrain, and that irrigation demand for the proposed vineyards could decrease over time as the vines become established.

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

Property Water Use	Pre-project (acre-feet/year)	Post-project (acre-feet/year)
Vineyard irrigation	0	13

Source: Richard C. Slade & Associates, Results of Napa County Tier 1 Water Availability Analysis Long Ranch "Parcel 12" Vineyard Development, Long Ranch Road, Vicinity Pritchard Hill, Napa County, California, January 25, 2019 - **Exhibit D-1**

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 34.6 inches per year over the approximately 41.8 acres of the parcel's land area available for recharge and a 14% groundwater recharge estimate, estimates the average annual groundwater recharge of the parcel to be approximately 15.4 AF/year (see **Exhibit D-1** for details and calculations). The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions.

As proposed, the project is estimated to have an annual onsite future demand of approximately 13 AF/year, which is below the estimated annual recharge volume of approximately 15.4 AF/year. Total water demand is anticipated to decrease over time as the vines mature and become more established. Furthermore, with implementation of **Mitigation Measure BR-1**, which would reduce the project by approximately 3.18 net acres, conservatively assuming that would reduce net planted acreage by 2 acres for disclosure purposes, , would result in a net development area of approximately 11 acres, thereby reducing anticipated long term overall water use by approximately 2 AF/year from 13 AF/year to 11 AF/year.

Considering: i) anticipated annual water use of the project parcel for proposed use of approximately 13 AF/year is below the parcel's anticipated groundwater recharge rate of approximately 15.4 AF/year; ii) implementation of **Mitigation Measure BR-1** would reduce anticipated annual long term overall water use by approximately 1 AF/year from approximately 13 AF/year to approximately 12 AF/year; iii) there is no evidence to date indicating that there are groundwater problems or declining well production in this area of the Napa County; and iv) implementation of the standard water use condition below would reduce potential impacts associated with 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 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 wells shall be made available for inclusion in the groundwater monitoring network if the Director of Public Works determines that the wells 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 vegetated avenues and turnaround avenue), and the annual application of straw mulch cover on all disturbed areas at a rate of 3,000 pounds per acre. Vineyard avenues and turn spaces would be maintained with the minimum vegetative cover density as specified for the individual vineyard block (80%). 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-1, A-2, C-1 and D-1** for details related to the following discussion.

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

A Hydrologic Analysis for the project was prepared by David A. Steiner, CPESC, CPSWQ (December 11, 2018: Hydrologic Analysis, Proposed Long Ranch Vineyard, Wappo Land Company, Long Ranch Road, St. Helena, CA, 030-220-025 - **Exhibit C-1**). The project site is contained within two watershed basins. One of the basins is located in the Lake Hennessey watershed and the second basin is hydrologically connected to Conn Creek and the Napa River watershed. The Hydrological Analysis was performed using WinTR-55, and Windows application based on USDA Technical Release 55, Small Watershed Hydrology. The analysis concluded that there would be no change in runoff time of concentration for the watersheds in the project parcel (**Table 11**).

Table 11 – Hydrologic Modeling Calculations (WinTR-55) 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
	Vinehill Creek/Napa River Watershed			
Pre-project conditions	24.58	45.89	68.33	77.83
Post-project conditions	24.58	45.89	68.33	77.83
Change (cfs)	0.0	0.00	0.0	0.0
Change (%)	0%	0%	0%	0%
Lake Hennessey Watershed				
Pre-project conditions	11.00	21.63	33.09	37.98
Post-project conditions	11.00	21.63	33.09	37.98
Change (cfs)	0.0	0.0	0.0	0.0
Change (%)	0%	0%	0%	0%

Source: David A. Steiner, CPESC, CPSWQ, December 11, 2018: Hydrologic Analysis, Proposed Long Ranch Vineyard, Wappo Land Company, LLC Vineyard Track I ECP #P19-00037, 141 Long Ranch Road - **Exhibit C-1**

Because the proposed project would not increase runoff flow rates it is consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be 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, or considerable on or offsite erosion, siltation, or flooding. Additionally, implementation of **Mitigation Measure BR-1**, which would reduce the project by approximately 3.18 gross acres, is anticipated to result in similar hydrologic effects/rates.

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

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). The proposed culverts also are appropriately sized to handle flood flows (Applied Civil Engineering Incorporated, May 3, 2019 - **Exhibit C-2**). 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)**, the proposed project would be located over 500 feet from the nearest watercourses, and this buffer would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could effect on or offsite 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 subsections (c) and (d) 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 59.78%, have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

Furthermore, project approval, if granted, would be subject to the following condition of approval, which would further reduce and avoid potential impacts to water quality as a result of the 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, would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

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

Discussion

- a. The proposed site is in a rural area of Napa County and the proposed project and the nearest established community, Yountville, approximately 4 miles south 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 undeveloped land and scattered rural residential, and vineyards. Surrounding parcels are zoned Agricultural Watershed (AW) and designated Agriculture, Watershed and Open Space (AWOS) in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

The proposed project has been analyzed for consistency with applicable sections of the NCC and with the Napa County General Plan. With inclusion of the mitigation measures and conditions of approval, the 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 59.78% 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 Measures BR-1** in conjunction with the project's **Environmental Commitments** 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 (**Exhibits B-1 and B-2**). The project as proposed with implementation of **Mitigation Measure BR-1** would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the parcel. Implementation of this measures would not affect the feasibility of the project in that, impacts to special-status species and their habitat can be avoided while allowing for up to 12.36 gross acres of agriculture to be developed and operated on the project 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 Measures BR-1**, in conjunction with the project's **Environmental Commitments** and the tree/woodland and fencing conditions of approval, 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 plant and animal species.
- With implementation of **Mitigation Measures BR-1**, in conjunction with the project's **Environmental Commitments** and the tree/woodland and fencing conditions of approval, the project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- As proposed, the project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey was prepared for the project (**Exhibits B-1 and B-2**).
- The project is consistent with Policy CON-30, which encourages the avoidance of wetlands: no wetlands have been identified within project site or subject parcel.
- The project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With implementation of the fencing conditions of approval, and the implementation of **Mitigation Measure BR-1** with the 4.9 acre-preservation area in the northeastern corner of the parcel, the removal of Block B from the proposed project, and the 14.5-acre oak woodland preservation area in the southern portion of the parcel, wildlife movement would not be impaired.
- 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 implementation 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 the mitigation measures and conditions of approval incorporated, would not be in conflict with applicable County regulations, policies, or goals and is anticipated to have a less than significant impact with respect to applicable County regulations, policies, or goals.

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Data 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 over 13 miles to the south of the project site. Proposed site improvements and development of vineyard on the property would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped, planted with vineyards and contain wineries. The nearest offsite residences to the project parcel are located approximately 1,430 feet northeast and approximately 2,270 feet southeast. Additionally, many adjacent proprietries and properties in the immediate area contain vineyard and agriculture.

Activities associated with installation of the proposed project, including earthmoving, potential blasting, and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a 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 89 (A-weighted decibels) dBA 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

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.

Table 13 – Estimated Distance to dBA Contours from Construction Activities¹

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be approximately 50 to 55 dBA at the nearest existing offsite residences.

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

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Data 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 Activities¹

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

¹ Based on a source noise level of 84 dBA

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

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

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of approximately 50 to 55 dBA, noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less than significant impact on ambient noise levels of the area.

During site preparation and vineyard installation, the use of heavy equipment 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.

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

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

Discussion

- a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of vineyard. It does not involve the construction of new homes, businesses, roads, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. The proposed water line would be used solely for vineyard irrigation. 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.

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

Discussion

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

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

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b. The project parcel contains approximately 41.8 acres of undeveloped land with the exception of a paved roadway (Long Ranch Road) and an existing onsite well.

The proposed project is expected to generate approximately 30 one-way trips per day during construction and installation for anticipated work crews of 30 employees. Vehicular equipment anticipated for project implementation typically includes a tractor/trailer, D9 bulldozers, backhoe, excavator, dump trucks, pickup trucks, water trucks, flatbed trucks, and ATVs. Pruning would occur approximately two days in March every year and is anticipated to generate approximately 20 daily employees, resulting in approximately 20 one-way trips per day during pruning. Weed control would occur between January and May, two to three times a year and is anticipated to generate one to two employees. Harvest is anticipated to generate up to 20 daily employees resulting in approximately 20 one-way trips per day for a period of five days of the year. An estimated 10 grape haul trucks would be used per day during harvest. Vehicular equipment for ongoing vineyard maintenance is anticipated to include ATVs, tractors, truck and equipment trailers, and passenger cars and/or light trucks. 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 accessed directly off Long Ranch Road, approximately 1 mile south of its intersection with California State Route 128 (CA-128 - Sage Canyon Road). Trucks and other equipment would use State highways or County roads for very short periods during construction and subsequent vineyard operation.

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

- c. The project proposes to utilize the existing site access off Long Ranch Road for project development (**Figures 1-3**). The project does not include roadway improvements and/or modifications to Long Ranch Road, or include any other design feature that would result in hazardous conditions due to 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.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

On March 6, 2019, the County notified pursuant to Public Resources Code Section 21074 (AB-52: Gatto) the Mishewal-Wappo Tribe of Alexander Valley and Middletown Rancheria of the proposed project. The County notified Yocha Dehe Wintun Nation on March 19, 2019. No response was received from Mishewal-Wappo Tribe of Alexander Valley. On May 13, 2019, the County sent notification to the Mishewal-Wappo Tribe of Alexander Valley closing the consultation invitation because the Tribe did not request consultation within the 30-day notification period.

On March 13, 2019, the County received a response letter from the Middletown Rancheria (via email) indicating they have no specific comments at this time; on May 13, 2019, the County sent notification to the Middletown Rancheria acknowledging their response letter and closing the consultation invitation.

Yocha Dehe Wintun Nation replied to the County's notification, in a letter received by the County on April 2, 2019, stating that the project site is not within the aboriginal territories of the Tribe, and that they decline to comment on the project at this time; on May 13, 2019, the County sent notification to Yocha Dehe Wintun Nation acknowledging their response letter and closing the consultation invitation.

- a-b. As discussed in **Section V (Cultural Resources)** the proposed projects' Cultural Resources Evaluation (Archaeological Resource Service, December 2018), found no historical or archaeological resources within the project site, therefore no resources listed or eligible for the California Register of Historical Resources (CRHR) are present and impacts to archaeological resources as a result of the proposed project are considered to be less than significant. Furthermore, no resources that may be significant pursuant to Public Resources Code

Section 5024.1(c) have been identified or are anticipated onsite. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

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

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

Discussion

- a. The proposed project would generate a minimal number of 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 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 and one proposed well would provide irrigation water to the vineyard. 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. Therefore, the proposed project would result in a less than significant impact.
- b. The approximately 15.9 gross acres of vineyard (approximately 12.8 net acres) would be irrigated by one existing onsite well and one proposed well onsite. The WAA conducted by RCS (2019) concluded that after full development, water use for the proposed approximately 13 acres of vineyard is estimated to be 13 AF/year. Based on site-specific recharge analysis, the project parcel is estimated to have a total groundwater allotment of 15.4 AF/year. Estimated water demand for the proposed project is 2.4 AF/year below the estimated groundwater recharge. RCS estimated approximately 235 AF of groundwater is currently in storage beneath the project parcel, and during a prolonged drought (estimated to last six years), groundwater recharge would be reduced to 39% of the average annual recharge, or approximately 6 AF/year (36 AF in six years). To meet six years of groundwater demand, the proposed project would require approximately 78 AF of water. Based on these estimates, there would be a recharge deficit of approximately 42 AF (or approximately 18% of the volume of groundwater currently in storage) during a prolonged drought. Water to meet a prolonged drought would be available during drought periods from the approximately 235 AF of groundwater estimated to be in storage beneath the project parcel. Removing approximately 42 AF of deficit over the entire six-year period may cause water levels to decrease beneath the project parcel (see **Exhibit D-1** for details and calculations). However, the removal of such a small percentage of groundwater from storage over a six-year period is not expected to significantly impact groundwater levels. Furthermore, rainfall recharge during years of average and above-average rainfall years would then replenish groundwater in storage that would have been used to meet the groundwater demand of the entire property during the six-year drought period. Therefore, the proposed project would have less than significant impact on water supplies. Furthermore, the proposed well would

allow for increased operational flexibility and distribute groundwater extraction over a greater portion of the property. Water availability and water use are discussed in greater detail in **Section X (Hydrology and Water Quality)**.

- 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, or used in erosion and runoff control measures. Rock not used immediately would be stockpiled for future use inside the proposed clearing limits or disposed of within the parcel or adjacent parcels owned by the applicant. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, end posts, etc.) would be negligible and no impact would occur. Implementation of the proposed project would have a less than significant impact on solid waste because the only solid waste would be cane generated during vine pruning. Materials generated during pruning or harvest activities would generally be disposed of onsite by spreading 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 exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, State, and local statutes and regulations. No impact would occur.

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

Discussion:

The project site is located in a State Responsibility Area (SRA) that is designated as a Very High Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). The project site is gently to steeply sloped with a west to southern-facing aspect, and elevations ranging from approximately 850 to 1,270 feet above msl.

- a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site and the project area. Therefore, the proposed project would not impact an adopted emergency access 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 risk would be temporary due to the short duration of construction (approximately 10 months). The proposed project does not include any infrastructure that would exacerbate wildfire risk and impact would be less than significant.
- d. Although the proposed project would alter land cover, 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 **X [Hydrology and Water Quality]**). There are no offsite residences in the immediate vicinity of the project site. Therefore, there are no structures or people that would be exposed to downslope or downstream flooding or landslides and the impact would be less than significant.

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

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

Discussion

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

- a. As discussed in this Initial Study, implementation of #P19-00037-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the project be approved), would not have the potential to significantly degrade the quality of the environment. Special-status plant species narrow-anthered brodiaea, holly-leaved ceanothus, Greene's narrow-leaved daisy, nodding harmonia, Sharsmith's western flax, and green monardella and their habitats have been identified on the subject parcel and within the project area. Greene's narrow-leaved daisy, narrow-anthered brodiaea, holly-leaved ceanothus, and Sharsmith's western flax are CNPS List 1B.2 species. Nodding harmonia and green monardella are CNPS List 4 species. With incorporation of **Mitigation Measure BR-1**, a majority of the special-status plants and their habitat would be avoided and preserved (**Table 5**).

Implementation of **Mitigation Measures BR-1** in conjunction with the project's **Environmental Commitments** would avoid potential direct and indirect impacts to special-status plant and bird species and minimize impact to sensitive habitats. Given the relatively small size of the project area (relative to the width of the corridor track) and the lack of apparent development impacts to wildlife movement or migration at the landscape linkage scale, agricultural expansion within the project area is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. While the proposed project would result in a portion of the parcel having reduced potential for on-site wildlife movement, the retention of chaparral in the 4.9 acre preservation area discussed in **Mitigation Measure BR-1** and removal of Block B would allow for continued local wildlife movement, less fragmentation of on-site chaparral, and would allow for direct connectivity with similar habitats on neighboring properties, including an adjacent 4.76-acre chamise chaparral habitat conservation area established to the east of the project parcel (APN 032-010-071; Berberian #98328-ECPA, approved April 22, 2003). As such, with the implementation of **Mitigation Measure BR-1**, the proposed project would not introduce any new movement barriers to wildlife and cumulative impacts are anticipated to be less than significant. Incorporation of standard cultural resources conditions would result in the protection of cultural resources that may be discovered accidentally, and significant impacts to cultural resources are not expected (**Section V, Cultural Resources**). Therefore, the proposed project as designed with incorporation of **Mitigation Measures BR-1**, and in conjunction with the project's **Environmental Commitments** and conditions of approval, the proposed vineyard development project would have a less than significant potential to degrade the quality of the environment.

- b. The subject property is located within the Lake Hennessey and Vinehill Creek drainages. The Lake Hennessey Drainage contains approximately 5,165 acres. In 1993, vineyard acreage within this drainage was approximately 318 acres, or 6.16% of the drainage. Since 1993 approximately 134 acres of additional vineyard (or 2.59% of the drainage) have been developed to vineyard, resulting in approximately 8.75% of the drainage (or approximately 452 acres) containing vineyard.

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 1,027 acres (19.88% of the drainage) having the potential to be developed to vineyard, this in conjunction with existing and approved vineyard development (approximately 452 acres) results in a total potential build out of approximately 1,479 acres or approximately 28.6% 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.

The Vinehill Creek Drainage contains approximately 2,078 acres. In 1993, vineyard acreage within this drainage was approximately 767 acres, or 36.91% of the drainage. Since 1993, approximately 174 acres of additional vineyard (or 8.37% of the drainage) have been developed to vineyard, resulting in approximately 45.28% of the drainage (or approximately 941 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying PPS within the Vinehill Creek Drainage, that there is approximately 417 acres (20.07% of the drainage) having the potential to be developed to vineyard, this in conjunction with existing and approved vineyard development (approximately 941 acres) results in a total potential build out of approximately 1,358 acres or approximately 65.35% of the drainage.

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 reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Lake Hennessey and Vinehill Creek drainages) over the last 25 years (1993-2018) were used to project an estimation of vineyard development for the next three to five years. Over the past 25 years within the Lake Hennessey and Vinehill Creek drainages, approximately 55.72 acres of agriculture were developed per year (452 plus 941 divided by 25).

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 167 to 278 acres over the next three to five years within the Lake Hennessey and Vinehill Creek drainages are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON 24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG - Sections III and VII:

The project (#P19-00037-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 BAAQMD recommends that significance be based on the consideration of the control measures to be implemented (BAAQMD, 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 requires 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 7 and 8**). As discussed in **Section VIII (Greenhouse Gas)**, 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. Furthermore, with the implementation of **Mitigation Measure BR-1** the project would be reduced by approximately 3.18 gross acres, thereby further reducing anticipated air quality impacts associated with vineyard development and ongoing vineyard operations.

Biological Resources - Section IV:

A project specific Biological Resources Reconnaissance Survey (WRA, February 2019 and May 8, 2019 - **Exhibits B-1 and B-2**) was performed for the project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the project. The reconnaissance survey included a records search to identify the presence or potential presence of special-status species within the project area. The records search included the CNDDB and CNPS databases. As discussed in **Section IV (Biological Resources)**, six special-status plant species (narrow-anthered brodiaea, holly-leaved ceanothus, Greene's narrow-leaved daisy, nodding harmonia, Sharsmith's western flax, and green monardella) were identified in the project parcel, three of which (holly-leaved ceanothus, narrow-anthered brodiaea, and Sharsmith's western flax) were identified in the project area. With implementation of **Mitigation Measure BR-1**, the project would avoid and preserve approximately 70% of the special-status plant habitats occurring on the parcel and would provide the opportunity for these species to maintain viable populations both on the parcel and, more broadly, in the region, reducing potentially significant impacts

to special-status plant species and their habitat to a less than significant level. Implementation of this mitigation measure would also effectively offset the loss of special-status plants and habitat located within the mitigated project and protect sensitive habitat. Potential direct and indirect impacts to special-status plant and animal species and their habitat would be avoided and reduced through implementation of **Mitigation Measures BR-1**, the project's **Environmental Commitments**, and the standard conditions of approval for fencing and tree/woodland protection. The two ephemeral streams within the project parcel are outside of the proposed development area and would not be affected by the proposed project. Therefore, the project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII

No cultural resources were identified in the project area. With the incorporation of standard conditions to protect cultural resources that may be discovered accidentally and to ensure that Tribal cultural resources are protected, significant impacts to cultural and tribal resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified mitigation measure and 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 59.78% as compared to existing conditions (**Table 6**). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the 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 and Vinehill Creek drainages; therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hydrology and Water Quality - Section IX:

Water use calculations provided in the WAA prepared by RCS (January 25, 2019 - **Exhibit D-1**) indicate that the proposed development consisting of approximately 13 net acres of planted vineyard would result in approximately 13 AF/year of groundwater use (**Table 10**).

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 annual rainfall for the area (approximately 34.6 inches per year) and the size of the subject property (approximately 41.8 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 14% of the average rainfall or 15.4 AF/year would be available for groundwater recharge.

Considering the anticipated water use for existing uses and proposed vineyard of approximately 13 AF/year is below the property's anticipated annual groundwater recharge rate of approximately 15.4 AF/year (implementation of **Mitigation Measure BR-1** would reduce anticipated long term overall water use by approximately 2 AF/year to approximately 11 AF/year), and that implementation of the standard water use condition would further reduce potential impacts associated with groundwater use, the proposed project 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 WinTR-55 has been prepared by David A. Steiner, CPESC, CPSWQ (December 11, 2018 - **Exhibit C-1**). Because the project does not include diversions, create concentrated flows or otherwise alter site drainage patterns, and does not materially alter site slopes no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Exhibit C-1**), therefore no significant impacts due to changes in hydrology are expected.

Not increasing runoff rates is consistent with General Plan Conservation Element Policy CON-50c 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. Additionally, implementation of **Mitigation Measure BR-1**, which would reduce the project by approximately 3.18 gross acres, is anticipated to result in similar hydrologic effects/rates.

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

Land Use and Planning - Section XI:

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

Proposed Project Impacts found to be Less Than Significant

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the 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. The periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form of headlights 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 and 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 to 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, the project with incorporation of identified mitigation measures and conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with this 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.

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Exhibit B-2	Response to Napa County Comments on Biological Resources (electronic only)
Exhibit C-1	Hydrologic Analysis (electronic only)
Exhibit C-2	Culvert Hydrologic Analysis (electronic only)
Exhibit D-1	Water Availability Analysis (electronic only)
Exhibit D-2	Addendum to Water Availability Analysis (electronic only)
Exhibit E-1	Soil Loss Analysis (electronic only)
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Exhibit F	Landslide Hazard Evaluation (electronic only)
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