

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:** Hess Collection Winery, Persson Vineyard Agricultural Erosion Control Plan (ECPA) Application #P18-00445-ECPA
2. **Property Owner(s):** Sabrina Weyeneth Persson and Timothy Persson
3. **Contact Person, Phone Number and Email:** Donald Barrella, Planner III, (707) 299-1338, [donald.barrella@countyofnapa.org](mailto:donald.barrella@countyofnapa.org)
4. **Project Location and APN:** 2847 Atlas Peak Road, Napa, CA 94558, APN 039-080-042 (**Figures 1 and 2**)
5. **Project Sponsor:** The Hess Collection Winery  
4411 Redwood Road  
Napa, CA 94558

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

6. **General Plan Description:** Agriculture, Watershed and Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Description of Project:**

The project involves i) the clearing of vegetation (coast live oak woodland and non-native annual grassland), earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 20.6 gross acres of new vineyard ( $\pm 16.0$  net planted acres) within 4 vineyard blocks (Vineyard Blocks 1 through 4), and ii) the ongoing maintenance of erosion control measures associated with approximately 1.1 acres of existing vineyard ( $\pm 0.9$  net planted acres) developed without the benefit of an approved Agricultural Erosion Control Plan (Vineyard Block 5), for a total project area of approximately 21.7 acres ( $\pm 16.9$  net planted acres), located on a 40.1 acre parcel (**Figure 3**). Average slopes within the project area range from 8 percent (%) to 21% with approximately 0.5 acre on slopes over 30%. Approximately 368 trees with diameter breast height (dbh) greater than 6 inches are proposed for removal, predominantly consisting of coast live oaks (*Quercus agrifolia*). Rock removed during the clearing of the land would be utilized to create rock-filled avenues to help retain sediment and disperse runoff. There would be no transport of spoils off-site, any rock stockpiles would be located with proposed clearing limits and are expected to be less than 20 feet in height. The vineyard would be irrigated via a drip irrigation system with water from an existing onsite well, and wind machines are proposed for frost protection. New wildlife exclusion fencing generally includes blocks fenced individually and in clusters where appropriate. The project also proposes three new rocked water crossings of drainages (**Exhibit A**).

**Erosion Control Measures:** Temporary erosion control measures include water bars, straw wattles, straw bale dikes, and the application of straw mulch at a rate of 3,000 pounds per acre. Permanent erosion control measures include rocked water crossings and rock-filled avenues, and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80%. Details of the proposed erosion control measures are provided in the Hess Collection Winery ECP #P18-00445-ECPA, dated May 2019, prepared by James R. Bushey (RPE No. 49931) of PPI Engineering, Napa, California (**Exhibit A**).

**Earthmoving:** Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation 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 4-foot by 6.5-foot spacing pattern for an approximate vine density of  $\pm 1,675$  vines per acre (or approximately 26,800 vines within the 16.0 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 of the cover crop would be mechanical (e.g., mower) and through maintaining 12 inch wide spray strips at the base of vines with post-emergent herbicides.

**Table 1** lists a general schedule for the construction of the proposed project as identified in #P18-00445-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P18-00445-ECPA.

**Table 1 – Implementation Schedule**

April 1	Commence clearing and tillage operations
October 1	All tillage and erosion control completed, including construction of all structural measures (e.g., rocked water crossings and rock-filled avenues).
October 15 <sup>1</sup>	All winterization complete, including seeding, straw mulching, and straw wattle installation.

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

**Table 2 – Annual Operations Schedule**

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

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

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

The proposed project would occur on one parcel totaling approximately 40.1 acres located at 2847 Atlas Peak Road in Napa, California (**Figures 1-3**). Development on the parcel consists of one residence (approximately 1.78 acres of developed and landscaped area), approximately 1 acre of existing vineyard located in the northeastern portion of the parcel (Block 5), an existing paved driveway that provides access to the parcel from Atlas Peak Road, and a dirt road that provides access from the paved driveway to the existing vineyard and a barn. Surrounding land uses include scattered residences, agriculture (e.g., vineyards), and undeveloped areas (naturally vegetated and/or wooded hillsides), and the Ardente Winery is located approximately 0.5 mile to the northeast.

The project parcel is located approximately 6 miles east of the Town of Yountville and approximately 5 miles northeast of the City of Napa. The parcel is located within the Milliken Creek Main Fork watershed. There are no streams on the parcel. Runoff leaving the parcel drains south towards Atlas Peak Road into Milliken Creek below Milliken Reservoir, thence the Napa River. Milliken Reservoir is located approximately 1 mile east of the project parcel.

General topography of the area consists of hills on the eastern side of Napa Valley and west of Atlas Peak Road. The project parcel contains ridges in the northeastern and northwestern portions and has two small topographic swales in the west and southeastern corner of the parcel boundary. Slopes within the development area are gently to steeply sloped on generally southern-facing slopes, with elevations that range from approximately 980 to 1,240 feet above mean sea level (msl).

No potentially active faults have been mapped on the project parcel; the nearest active faults are the Soda Creek and Green Valley fault, less than 1 mile southwest of the parcel and approximately 2 miles east of the parcel, respectively. No landslides or areas of instability have been identified within the project parcel. Soils on the project parcel have been classified according to the Soil Survey of Napa County (USDA, 1978) as Aiken loam 30 to 50% slopes, Boomer-Forward-Felta complex 30 to 50% slopes, Hambright-Rock outcrop complex 2 to 30% slopes, and Hambright-Rock outcrop complex 30 to 75% slopes (PPI Engineering, Revised May 2019 - **Exhibit A**).

The vegetation types in the area generally consist of annual grassland, oak woodland, and vineyards and other developed lands. Vegetation types occurring within the project parcel consist of approximately 12.64 acres of non-native grassland, 23.94 acres of coast live oak woodland, and two seasonal wetlands (WRA, October 2018 - **Exhibit B-1**). The existing vineyard (i.e. Vineyard Block 5, approximately 0.9 net acres) that

was developed in 2008 without an ECPA is presumed to have been developed under the landscape exemption provision pursuant to NCC Section 18.108.050(C)<sup>1</sup>

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)  
U.S. Army Corps of Engineers (USACE) (R)  
Regional Water Quality Control Board (Regional Water Board) (R)

**Other Agencies Contacted**

Yocha Dehe Wintun Nation  
Middletown Rancheria  
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 the Yocha Dehe Wintun Nation, the Middletown Rancheria, and the Mishewal Wappo Tribe of Alexander Valley on January 29, 2019. On February 1, 2019, the County received a response letter from the Middletown Rancheria indicating they have no specific comments at this time; on October 21, 2019, the County sent notification to the Middletown Rancheria acknowledging their response letter and closing the consultation invitation. The Yocha Dehe Wintun Nation and the Mishewal Wappo Tribe of Alexander Valley did not request consultation within the 30-day notification period and on October 21, 2019, the County sent consultation closure notices to these Tribes: also see **Section XVIII (Tribal Cultural Resources)**.

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<sup>1</sup> 18.108.050 - This chapter shall not apply to the following activities, whether or not permits are presently required therefor, which this board hereby finds have less potential to significantly alter the present environment; are preempted by state law; or are publicly-supervised projects necessary for the protection of the immediate health and safety of the residents of Napa County: (C) Land clearing, earthmoving and/or grading in connection with the planting and/or maintenance of decorative landscaping and/or construction of landscape structures as defined in [Section 18.108.030](#) for which no building or grading permits are required as part of an existing or approved residential structure; and the clearing and/or grading does not involve more than one acre per legal parcel, and the clearing and/or grading does not involve removal of any living tree from the ridge line or hilltop visible from any public roadway unless such tree is replaced in a manner approved by the director, and temporary erosion control measures are installed by the winter shut-down period applicable to the project site;

## 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 checked="" 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 checked="" 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 #P18-00445-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559:

- PPI Engineering, Revised May 2019, Original Submittal December 2018, Erosion Control Plan, The Hess Collection Winery (**Exhibit A**)
- WRA, Inc., October 2018, Biological Resources Reconnaissance Survey Report, Hess Persson Property, Atlas Peak Road, Napa County, California (APN: 039-080-042) (**Exhibit B-1**)
- WRA, Inc., May 7, 2019, Response to Comments (Biology) - Hess Collection Vineyard Agricultural Erosion Control Plan Application File No. P18-00445-ECPA; 2847 Atlas Peak Road, Napa, APN 039-080-042 (**Exhibit B-2**)
- PPI Engineering, May 16, 2019, Revised Hydrologic Analysis, Hess Collection Winery Track I ECP #P18-00445-ECPA, 2847 Atlas Peak Road; APN 039-080-042 (**Exhibit C**)
- Richard C. Slade & Associates LLC (RCS), February 8, 2019, Results of Napa County Tier 1 Water Availability Analysis, Hess Persson New Vineyard Development, 2847 Atlas Peak Road, APN -39-080-042, Napa County, California (**Exhibit D**)
- PPI Engineering, May 16, 2019, Revised Soil Loss Analysis, Hess Collection Winery Track I ECP #P18-00445-ECPA, APN 039-080-042 (**Exhibit E**)
- Flaherty Cultural Resource Services, November 18, 2018, Cultural Resource Reconnaissance of 40+/- Acres Near Foss Valley, Napa County, California
- Site inspection conducted by Napa County Planning Division staff Kyra Purvis was completed on January 31, 2019 and by Engineering Division staff Daniel Basore on April 16, 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 F** 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

February 14, 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
<b>I. AESTHETICS.</b> 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) 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 approximately 0.3 mile from Atlas Peak Road, the closest County viewshed road, and approximately 2 miles north and 2.5 miles west from State Highway 121. The site is not located on a prominent hillside, a major or minor ridgeline (Napa County GIS, Ridgelines Layer), or within a scenic corridor (Napa County GIS, Scenic Corridors Layer). There are no significant rock outcroppings or geologic features on the project parcel that would be impacted by the project. Although trees would be removed with the proposed project (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](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)). Therefore, the proposed project would have a less than significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops for the reason 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, a winery, and rural 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 parcel would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project parcel and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include nighttime harvest (typically from 8 p.m. to 8 a.m.) during approximately 10 days per year, and sulfur applications (typically from 8 p.m. to 8 a.m.) approximately eight days per year. Although some nighttime activity would occur for limited periods, the project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses. Therefore, the proposed project would result in a less than significant impact.

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

Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <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 site as Grazing Land; there are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance mapped in the project parcel. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance resulting in no impact. Vineyard development on areas designated Grazing Lands would not be inconsistent with this designation and would not result in an impact to farmland within Napa County.
- b. The project site has a General Plan designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 21.7 gross acres (16.9 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 contain forest land or coniferous forest (Napa County GIS; WRA October 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 agricultural or forest resources of Napa County.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY.</b> Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<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 4<sup>th</sup> 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 northwest of the City of Napa, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, and vehicular haul and worker trips. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. Refer to **Section XVII (Transportation)** for the anticipated number of construction- and operation-related trips.

The impacts associated with implementation of the project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O<sub>3</sub>), ozone precursors oxides of nitrogen and reactive organic gases (NO<sub>x</sub> and ROG), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), and suspended particulate matter of ten micrometers or less and two and a half micrometers or less (PM<sub>10</sub> and PM<sub>2.5</sub>). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO<sub>2</sub>), 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 Vineyards<sup>2</sup> for an approximately 560-acre vineyard development, Walt Ranch Vineyard<sup>3</sup> for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards<sup>4</sup> for an approximately 400-acre vineyard development.<sup>5</sup>

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<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.

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 <sub>x</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>
<b>Construction Emissions</b>				
<b>Pounds per day: 150-acre vineyard development<sup>1</sup></b>	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to 14.53
<b>Pounds per day: 150- to 250-acre vineyard development<sup>2</sup></b>	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
<b>Pounds per day: 127-acre vineyard development<sup>3,4</sup></b>	4.6	42.3	5.21 <sup>4</sup>	24.21 <sup>4</sup>
<b>Construction threshold</b>	54	54	54	82
<b>Operational Emissions</b>				
<b>Pounds per day: 400-acre vineyard operation<sup>1</sup></b>	7.78	2.85	0.80	4.22
<b>Pounds per day: 560-acre vineyard operation<sup>2</sup></b>	6.58	1.84	0.75	3.91
<b>Pounds per day: 507-acre vineyard operation<sup>3</sup></b>	4.3	22.3	1.4	2.3
<b>Operational threshold (lbs/day)</b>	54	54	54	82
<b>Tons per year (Metric)<sup>1,5</sup></b>	0.78	0.35	0.11	0.58
<b>Operational threshold (tons per year)</b>	10	10	10	15

<sup>1</sup> As identified in Circle-S EIR; <sup>2</sup> As identified in Suscol Mountain EIR; <sup>3</sup> As identified in Walt Ranch EIR; <sup>4</sup> Includes dust and exhaust emissions; <sup>5</sup> 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 21.7-acre vineyard (approximately 16.9 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. These BMPs would be incorporated into the proposed project, should the proposed project be approved.

#### **Air Quality – Conditions of Approval:**

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

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

<sup>3</sup> #P11-00205-ECPA, AES March 2016, SCH #2008052075 certified August 1, 2016

<sup>4</sup> #P06-01508-ECPA, AES April 2011, SCH #2007062069 certified December 22, 2011

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five (5) minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ<sup>6</sup> or the PERP website<sup>7</sup>.

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 3**, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in **Table 3** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less than significant air quality impacts, and it would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

Furthermore, in addition to incorporation of the Air Quality BMPs identified in the conditions of approval above (should the proposed project be approved), implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the project acreage by approximately 5.1 acres, would 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 adjacent to the project parcel include vineyards, undeveloped land, and rural residential. Land uses surrounding the project site include agricultural areas, open space and scattered residences. The project site consists of approximately 40.1 acres of land with one residence onsite and 0.9 acre of existing vineyard (Block 5). The closest school (Vichy Elementary School) is located approximately 2.7 miles south of the project site in Vichy Springs (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 1,065 feet to the north, approximately 1,269 feet to the southeast, and approximately 1,588 feet southwest from the project parcel. The closest residential area (Vichy Springs) is approximately 1.3 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 more than 2 miles from the closest school and more than 1 mile from the closest residential neighborhood, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, resulting in a less than significant impact.

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<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**IV. BIOLOGICAL RESOURCES.** Would the project:

<sup>6</sup> [http://www.arb.ca.gov/portable/perp/perpfaq\\_04-16-15.pdf](http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf)

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

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 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 or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/>            | <input checked="" 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, Inc., October 2018, Biological Resources Reconnaissance Survey Report, Hess Persson Property (**Exhibit B-1**)
- WRA, Inc., May 7, 2019, Response to Comments (Biology) - Hess Collection Vineyard Agricultural Erosion Control Plan Application File No. P18-00445-ECPA; 2847 Atlas Peak Road, Napa, APN 039-080-042 (**Exhibit B-2**)

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

WRA conducted an assessment of biological resources on the subject parcel on April 25 and June 8, 2018. The survey was completed to determine: the presence of sensitive biological communities; the potential for biological communities on site to support special-status plant or wildlife species; and the presence of sensitive natural resources protected by local, state, or federal laws and regulations. The surveys correspond to blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project area. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines (CNPS, 2001; CDFW, 2018; USFWS, 1996). Plants were identified using Baldwin et al. (2012) and Jepson Flora Project (Jepson eFlora, 2018) to the taxonomic level necessary to determine whether they were rare. The wildlife surveys were conducted concurrently with the rare plant surveys.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project area was compiled based on data in the CNDDDB (CDFW, 2018), 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 Quads (USFWS, 2018).

The parcel consists of the following upland biological communities (or habitat types): coast live oak woodland, non-native grassland, developed and agriculture. The parcel also contains two seasonal wetlands. Oak woodland and seasonal wetlands 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 Parcel**

Biological Communities or Habitat Type	Pre-Project Conditions (acres)
Costal Live Oak Woodland	23.94
Non-native Annual Grassland	12.64
Developed Area	1.78
Agriculture	0.90
Seasonal Wetland	0.87

Source: WRA, October 2018

- a. **Special-Status Plants:** Based upon a review of the resources databases listed in **Exhibit B-1**, 85 special-status plant species have been documented in the vicinity of the project parcel. Occurrence records of these species in CNDDDB within a 3-mile radius of the project parcel are depicted in **Exhibit B-1** Figure A-3. Thirty-one special-status plant species have a moderate to high potential to occur in the project parcel (**Exhibit B-1**). Results of a protocol-level plant survey determined that two special-status plants are present within the project site: Greene's narrow-leaved daisy (*Erigeron greenei*) and nodding harmonia (*Harmonia nutans*). Greene's narrow-leaved daisy is a CNPS California Rare Plant Rank (CRPR) List 1B species, which is considered "Rare, Threatened, or Endangered in California and Elsewhere" and are fairly threatened in California (i.e., moderate degree/immediacy of threat). Nodding harmonia is a CRPR List 4 species, meaning that it is of limited distribution or infrequent throughout a broader area of California; although it is not considered under CEQA, impacts to this 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 (CFG), and are eligible for state listing. While Greene's narrow-leaved daisy is not state or federally listed species at this time, this species and its 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-3<sup>8</sup>. Additionally, pursuant to Napa County General Plan Policy CON-13<sup>9</sup>, 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.

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 3,270 feet above msl. Seven individuals are within the development area, on thin, rocky soils in open woodland and grassland (WRA, October 2018 - **Exhibit B-1**).

Nodding harmonia is an annual forb in the sunflower family that blooms from March through May. It typically occurs on rocky or gravelly substrates derived from volcanic rock within chaparral and cismontane woodland habitat at elevations ranging from 240 to 3,170 feet above msl. Approximately 2,750 individuals in two subpopulations occur within the project parcel covering approximately 2.8 acres (this includes approximately 0.2 acre located on an adjacent parcel to the south of proposed Block 4, as shown in **Figure 4**). Of this total, approximately 2.3 acres (approximately 2,255 individuals, 82%) fall within the development area (WRA, October 2018 - **Exhibit B-1**).

The project as proposed would remove would remove approximately 82% to 100% of the special-status plants and/or populations occurring within the project parcel. This would be a significant impact as a result of the project. The removal of these special-status plant species and their habitat would also 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 16.4 acres of agriculture on the project parcel (as further disclosed and assessed below); Policy CON-17<sup>10</sup> 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 also be a significant impact.

Furthermore, because the site's oak woodland and grassland habitats (or biological communities) contain special-status species (Greene's narrow-leaved daisy and nodding harmonia), these habitats are also considered to be potential special-status species habitat, because they contain the biological and ecological characteristics necessary to support these plant species, in addition to containing the special-status plant species populations and individuals. The project parcel contains approximately 23.9 acres of coast live oak woodland, with 10.7 acres occurring in the proposed development area, The project parcel contains approximately 12.6 acres of grassland, with 9.9 acres occurring in the proposed development area. The project as proposed would remove approximately 20.6 acres of the project parcel's ±36.5 acres (or ±56%) of potential special-status plant species habitat). This, in conjunction with the removal of approximately 82% to 100% of the individual special-status plants and/or populations within the project parcel (as disclosed above) would be a significant impact.

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<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

Specific to oak woodland, Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habitat, slope stabilization, soil protection and species diversity. Policy CON 24c<sup>11</sup>, specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. The project parcel contains approximately 23.9 acres of coast live oak woodland, with 10.7 acres occurring in the proposed development area. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy CON-24c, 2:1 preservation ratio, only approximately 7.97 acres can be converted to vineyard to comply with this policy. Therefore, the project would be redesigned to avoid approximately 2.7 acres of coast live oak woodland to minimize potential impacts to oak woodlands and comply with policy directives. See the disclosure and **Mitigation Measure BR-1** and question e below for further discussion

To reduce potential impacts to special status species and associated habitat, and to oak woodlands, to a less than significant level **Mitigation Measure BR-1** will be implemented. The acreages of each biological community (or habitat type) and the approximate number of each special-status plant species to be removed within the development area as a result of implementation of **Mitigation Measure BR-1** are listed in **Table 5**. The overall effects to the footprint of implementation of **Mitigation Measure BR-1** are show in **Figure 4 (Mitigated Project)**.

**Table 5 – Retention of Biological Communities and Special-Status Plants  
Between the Original and Mitigated Proposed Project<sup>12</sup>**

Biological Feature	Total Acres in the Project Parcel	Original Proposed Vineyard Blocks			Mitigated Proposed Vineyard Blocks <sup>3</sup>		
		Acreage	Individual Count	% Retention	Acreage	Individual Count	% Retention
Greene's narrow-leaved daisy	--	--	7	0%	--	0	100%
Nodding harmonia	2.84 <sup>1</sup> (2,750 individuals)	2.30	2,255	18%	0.57	550	80%
Biological Communities		Acreage	% Retention		Acreage	% Retention	
Coast Live Oak Woodland <sup>2</sup>	23.94	10.70	55%		7.7	67%	
Non-native Annual Grassland	12.64	9.89	22%		7.8	37%	
Agriculture/Developed	2.68	1.14	100% <sup>2</sup>		1.14	100% <sup>4</sup>	
Season Wetland <sup>2</sup>	0.87	0.01	99%		0.01	99%	

<sup>1</sup> Includes approximately 0.2 acre located on an adjacent parcel to the south of proposed Vineyard Block 4, as shown in Figure 4.

<sup>2</sup> Considered sensitive by Napa County.

<sup>3</sup> Includes Mitigation Measures BR-1 and BR-3

<sup>4</sup> The existing approximately 0.9 net acre of existing vineyard is included in the ECP acreage but would not change with the proposed project.

Sources: WRA, October 2018 - Exhibit B-1; ESA, 2019; and Napa County December 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 avoid and retain special-status plant species and associated habitat. All seven individuals of Greene's narrow-leaved daisy in Block 1 would be removed from the development area and would be protected with a 25-foot to 50 foot buffer to avoid isolating the individuals within the proposed vineyard. Approximately 2.27 acres (80%, or approximately 2,200 individuals) of the nodding harmonia population would be protected by removing from the development area the entire population in Block 4 (includes 0.2 acre south of Block 4) and a portion of the population in Block 1 that overlaps with the Greene's narrow-leaved daisy individuals, and protecting the areas with a minimum 10-foot buffer: the Greene's narrow-leaved daisy individuals located in the southern portions of Proposed Vineyard Block 1 would be provided with a total 100 foot buffer (i.e. 50 feet on either side) to maintain a connection between the special-status plant species and habitat located in proposed Vineyard Blocks 1 and 4. Maintaining this connectivity would provide for continued cross-pollination and gene flow between these on-site special-status plant populations/individuals and habitat including those located on the adjacent property to the south and to provide for continued wildlife movement. Retention of the special-status plants and connected habitat within the parcel and area are expected to maintain viable populations both on the property and more broadly in the region, and reduce potential cumulative

<sup>11</sup> 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.

<sup>12</sup> The acreages identified in **Table 5** may differ from acreages identified in the biological assessment and response letter **Exhibits B-1 and B-2** due to mapping platforms, spatial characters, and rounding. Because approximate plant communities, special-status habitat and potential habitat, and project acreages have been corroborated through County GIS mapping, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

impacts to a less than significant level (also see the discussion under question d below). **Mitigation Measure BR-1** also requires the flagging of plant populations adjacent to the proposed clearing limits to prevent inadvertent impacts.

To reduce potential impacts to potential special-status species habitat, and to reduce impacts to the coast live oak woodland biological community to a less than significant level, and comply with Napa County General Plan Conservation Element Policy CON-24 (discussed further under question e), **Mitigation Measure BR-1** would be implemented to. The project parcel contains approximately 23.9 acres of oak woodland. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy Con 24(c)<sup>13</sup>, 2:1 preservation ratio, only approximately 7.97 acres can be converted to vineyard. The development area contains approximately 10.7 acres of oak woodland, therefore the project would be redesigned to avoid approximately 2.7 acres of coast live oak woodland. Block 2 and the associated rocked water crossing (discussed further under question c) would be removed from the development area with the implementation of **Mitigation Measure BR-1**, which would preserve approximately 0.9 acre of coast live oak woodland. The portions of Blocks 1 and 4 that overlap with the Greene's narrow-leaved daisy and nodding harmonia avoidance areas and the preservation of a potential bat roosting tree with an approximate 25-foot buffer (discussed in **Mitigation Measure BR-3** below) would preserve approximately 1.4 acres of coast live oak woodland. An additional 0.7 acre of coast live oak woodland would be removed from the northern edge (or fringe) of Block 1 (also reducing impacts to trees greater than 36 inches dbh, discussed under question e) to comply with Policy CON-24. This would result in the retention of approximately 16.2 acres of woodland outside the proposed vineyard blocks.

Implementation of these mitigation measures would reduce new vineyard acreage by approximately 5.1 acres, from approximately 21.7 gross acres to approximately 16.6 gross acres of vineyard. A summary of retention of biological communities in both the original proposed project and revised project after implementation of **Mitigation Measure BR-1** is provided in **Table 5**. The overall effects to the footprint of implementation of **Mitigation Measure BR-1** are also shown in **Figure 4 (Mitigated Project)**.

Implementation of **Mitigation Measure BR-1** would reduce impacts to special-status plant species and associated habitat, and oak woodland to a less than significant level in that it would: i) avoid and preserve approximately 67% of the project parcel's coast live oak woodland special-status plant species habitat, ii) avoid and preserve 80% to 100% of the project parcel's special-status plant populations/individuals, iii) result in consistency with General Plan Goal CON-3, 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-2<sup>11</sup> 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.

Furthermore, implementation of **Mitigation Measure BR-1** would not substantially affect the feasibility of the project or the continued viability of agricultural use of the project parcel, in that it would allow the owner/permittee to develop and operate approximately 16.6 acres of new vineyard, on the ±40.1-acre holding.

**Mitigation Measure BR-1:** The owner/permittee shall implement to following measures to minimize potential impacts to special-status plant species (i.e., Greene's narrow-leaved daisy and nodding harmonia) and their habitat, and to oak woodlands:

- a. Revise Erosion Control Plan #P18-00445-ECPA prior to approval to: i) remove Vineyard Block 2; and ii) modify/adjust the boundaries of Vineyard Block 1 and Vineyard Block 4 consistent with the modified block configurations as detailed in the Napa County Mitigated Project Map (**Figure 4**) that provides a minimum 25-foot to 50 foot buffers from all seven Greene's narrow-leaved daisy individuals and generally provides a minimum 10-foot buffer from all avoided nodding harmonia populations, and that provides connectivity to on-site and off-site special-status-plant species and associated habitat, resulting in an approximate 16.6 gross acre project (inclusive of Vineyard Block 5).
- b. Revise Erosion Control Plan #P18-00445-ECPA prior to approval to identify all areas removed from development pursuant to **Mitigation Measure BR-1(a)** and **Mitigation Measure BR-3**, consistent with and as shown in **Figure 4**, as Preservation Areas.
- c. The owner/permittee shall implement the following measure to permanently preserve special-status plant species and associated habitat within the project parcel, and to comply with Policy CON-24(c) 2:1 oak woodland preservation ratio. The Preservation Areas, totaling a minimum of 15.4 acres of oak woodland and 2.1 acres of grassland containing the Greene's narrow-leaved daisy individuals and nodding harmonia avoided populations, as a result of Mitigating Measure BR-1a and BR-3 and as shown in the Napa County Mitigated Project Map (Figure 4 – Mitigated Project), identified in #P18-00445-ECPA as mitigated, 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

<sup>13</sup> 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.

<sup>11</sup> Goal CON-2: Maintain and enhance the existing level of biodiversity.

policies of Napa County. The owner/permittee shall record the mitigation easement within 60 days of approval of #P18-00445-ECPA by the County; however in no case shall the ECPA be initiated until said mitigation easement is recorded.

- d. Revise the proposed wildlife exclusion fencing layout prior to approval, to limit any new wildlife exclusion fencing to the periphery of proposed vineyard blocks as modified by this mitigation measure and as show in **Figure 4A (Mitigated Fencing Map)**.
- e. In accordance with Napa County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any Greene's narrow-leaved daisy or nodding harmonia plants/populations inadvertently removed as part of development authorized under #P18-00445-ECPA shall be replaced on-site at a ratio of 2:1 at locations with similar habitat. For such removal a replacement plan shall be prepared by a qualified botanist or ecologist for review and approval by the Director prior to vineyard planting. At a minimum, the replacement plan shall include i) a site plan showing the locations where replacement plants will be planted, ii) a plant pallet composed the special-status plans specie(s) being removed including sizes and/or application rates, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation and monitoring schedule, and vi) performance standards with a minimum success rate of 80% to ensure the success of re-vegetation efforts.. Any replaced special-status plants shall be monitored for a period of at least three years to success criteria are met.

Special-Status Animals: A total of 58 special-status wildlife species have been documented in Napa County. Three of these species have a moderate or high potential to occur within the project parcel: pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*) and white-tailed kite (*Elanus leucurus*). Additionally, a variety of native bird species with protections under the Migratory Bird Treaty Act (MBTA) and CFGC may use vegetation within the development area for nesting.

Pallid bat is broadly distributed throughout much of western North America. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG, 2018; WRA, October 2018 - **Exhibit B-1**).

Fringed myotis ranges through much of western North America from southern British Columbia, Canada, south to Chiapas, Mexico and from Santa Cruz Island in California, east to the Black Hills of South Dakota. The species occurs in a number of habitats ranging from desert scrubland, grassland, sage-grass steppe, old growth forest and subalpine coniferous and mixed deciduous forest. Roosts are typically in caves, buildings, underground mines, rock crevices in cliff faces and bridges in colonies from 10 to 2,000 individuals (WRA, October 2018 - **Exhibit B-1**).

A daytime roost survey was performed by WRA on February 20, 2019 to assess all trees and substrates within the proposed vineyard blocks to determine if bat roosting habitat was present. WRA determined that most of the trees scheduled for removal have no potential to support bats. The majority of trees are coast live oak with a few blue oak (*Quercus douglasii*) and Pacific madrone (*Arbutus menziesii*) which are healthy and do not provide suitable mass to maintain stable thermal conditions required by roosting bats. One large tree located in the southwestern portion of the development area (in Block 4) has the potential to support roosting bats (**Exhibit B-2** Figure A-1). It contains a large cavity, fissures and basal cavities which has the potential to be a suitable bat roosting. Potential impacts to special-status bat species through removal of a potential bat roosting tree would be significant.

White-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (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 parcel and adjacent areas have a moderate potential for this species to occur due to the presences of trees suitable for nesting, as well as grassland and open woodland for foraging (WRA, October 2018 - **Exhibit B-1**). Potential direct and indirect impacts to white-tailed kite would be significant.

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. Potential direct and impacts to migratory birds would be significant.

To reduce potentially direct and indirect significant impacts to special-status bird and bat species as a result of the project to a less than significant level, **Mitigation Measures BR-2** and **BR-3** would be implemented to include a preconstruction nesting bird survey and avoid any nests with an exclusion buffer, and protect the potential bat roosting tree on the project parcel with a buffer.

**Mitigation Measure BR-2:** The owner/permittee shall revise Erosion Control Plan #P18-00445-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of nesting birds consistent with and pursuant to CFGC 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.

**Mitigation Measure BR-3:** To reduce impacts to special-status bat species, the owner/permittee shall revise Erosion Control Plan #P18-00445-ECPA prior to approval to modify/adjust the boundary of Vineyard Block 4 to provide a minimum 25-foot buffer from the potential bat roosting tree that also retains the two adjacent trees with a greater than 36" dbh, consistent with and as detailed in the Napa County Mitigated Project Map (**Figure 4**).

- b-c. The project parcel contains coast live oak woodland and seasonal wetlands, 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 23.9 acres of coast live oak woodland, with 10.7 acres occurring in the proposed development area (approximately 45% of the total community type on the parcel). The project parcel contains approximately 0.87 acre of seasonal wetland, with 0.01 acre occurring in the proposed development area (approximately 1% of the total community type on the parcel) (WRA, October 2018 - **Exhibit B-1**).

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 15.9 acres of woodland onsite (consistent with the 2:1 preservation ratio requirement): as indicated implementation of **Mitigation Measure BR-1** would retain approximately 16.3 acres of oak woodland, however only 15.9 acres of woodland are necessary/required to be permanently preserved to comply with this policy.

Seasonal wetlands are known from a variety of topographic positions and soil types where surface waters collect and flows are reduced, or subsurface waters approach the soil surface as a rising water table or seep. Two seasonal wetlands occupy 0.87 acre of the project parcel as seep-swale complexes, with 0.01 acre (totaling 64.4 feet) occurring within the location of three proposed rock-lined water crossings. Indicators of wetland hydrology include flow patterns, sediment deposition, and algal mats in (in micro-depressions). During the April 25, 2018 WRA site visit, soils were saturated and deeper portions of the swale were inundated; they are assumed to be hydric given the presence of strong vegetation and wetland hydrology indicators (WRA, October 2018 - **Exhibit B-2**). The crossings would be rock-lined pursuant to the engineered ECP (**Exhibit A**), and would be used minimally in the winter months. The permittee would be required to obtain permits (i.e., Section 404 Clean Water Act Nationwide permit and Section 401 Water Quality Certification) from regulatory agencies for the



installation of the crossings. The permittee would comply with all conditions of the permits. The permittee would ensure a no net loss of wetlands through, but not limited to, compensatory mitigation through purchase of mitigation credits or by creating or restoring waters onsite at a minimum of 1:1 ratio. In addition, the permittee would comply with the State's General Waste Discharge Requirements for Vineyard Properties in the Napa River and Sonoma Creek Watershed issued by the Regional Water Board. The remainder of the wetlands are avoided with a minimum 50-foot buffer, which includes a 26-foot undisturbed filter strip and a 24-foot turnaround avenue. Therefore, impacts to seasonal wetlands would be less than significant.

Furthermore, with implementation of **Mitigation Measure BR-1** and the removal of Block 2 from the proposed development area, only two rocky water crossings would be built totaling 0.01 acre (48.3 feet). Buffers between the clearing limits and the wetlands also would increase as a result of reductions in the vineyard acreage in Blocks 1, 2 and 4 with implementation of **Mitigation Measures BR-1 and BR-3**.

- d. The project parcel (approximately 40.1 net acres) includes deer fencing around existing Block 5 (0.9 net acre) and the southeastern portion of the parcel boundary. The existing deer fence is approximately 6 feet tall and consists of smooth wire with mesh spacing approximately 4 inches by 4 inches. The proposed deer fence would be the same height and material as the existing fencing and would be installed around the proposed blocks, which includes blocks fenced individually and in clusters where appropriate.

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 parcel is located near of the western edge of this mapped area, which is approximately 3.5 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 area provides connectivity between a patchwork of undeveloped lands consisting primarily of woodland and grassland, and low-density residential and agricultural developments. While the proposed vineyard blocks would result in portions of the site having reduced potential for on-site wildlife movement, the preservation/avoidance of wetland swales within the parcel, as well as the condition of the surrounding lands, would continue to allow for movement through the vicinity. The proposed deer fencing would not interfere substantially with wildlife movement and impacts are expected to be less than significant.

In addition, with the implementation of **Mitigation Measures BR-1 and BR-3**, the mitigated proposed vineyard blocks provide less fragmentation, and preservation of stands of oak woodland would provide movement and shelter habitat for a variety of common wildlife species and include connectivity to adjacent properties. Maintaining this connectivity should provide for continued cross-pollination and gene flow, as well as local wildlife movement. Furthermore, the adjacent properties are composed of the same habitats that support a similar suite of plants, presumably including those special-status plants documented on the property. Retention of the majority of the documented special-status plants in connected habitat blocks would provide the opportunity for these species to maintain viable populations both on the property, and more broadly, in the region. The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity.

Because wildlife nursery sites were not identified in the project area or parcel, there would be no impacts to wildlife nursery sites. While the proposed fencing would not result in significant impacts to wildlife movement and use, in order to ensure that deer fencing is installed in a manner that is consistent with CDFW recommendations to minimize impacts to wildlife movement, the following condition of approval would be incorporated should the project be approved.

#### **Fencing – Condition of Approval:**

The owner/permittee shall revise Erosion Control Plan #P18-00445-ECPA prior to approval to include a Vineyard Fencing Plan. The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P18-00445-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 #P18-00445-ECPA pursuant to the Vineyard Fencing Plan required by this condition and shown in Figure 4A 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. Based on the Biological Resources Reconnaissance Survey Report, plant communities or alliances occurring within the project parcel include 23.94 acres of coast live oak woodland (10.7 acres located within the development area), 12.64 acres of non-native annual grassland (9.89 acres within the development area), 1.78 acres of developed areas, 0.90 acre of existing vineyard, and 0.87 acre of seasonal wetlands (0.01 acre within the proposed crossings) (**Tables 4 and 5**). The mitigated proposed project would result in the removal

of 7.97 acres (67% retention) of coast live oak woodland, 7.99 acres (37% retention) of non-native annual grassland, and 0.01 acre (99.0% retention) of season wetlands, and the retention of 1.14 acres (100% retention) of agriculture/developed acres (**Table 5**).

Approximately 368 trees with a 6-inch dbh or greater are proposed for removal with the project within the 20.7 gross acres proposed for development. With implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the proposed vineyard acreage from approximately 21.7 gross acres to approximately 16.6 gross acres, the number of trees to be removed with a 6-inch dbh or greater would be reduced to approximately 210 trees, which would also allow for the retention of almost all of the trees with a >36" dbh (approximately 15 of the 22 trees with >36" dbh within the project area would be avoided).

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 Date Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 20050). 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. Removal of more than 1 acre of oak woodland for every 2 acres preserved would be a significant impact. With implementation of **Mitigation Measure BR-1**, impacts to oak woodlands would be reduced to less than significant by reducing proposed vineyard acreage by 5.1 acres and permanent retention of 16.3 acres of woodland outside the proposed vineyard blocks.

To ensure that oak trees outside the development area are not 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 incorporated 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 #P18-00445-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 incorporate 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. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- |   |                          |                                     |                                     |                          |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input 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 the impact assessment pursuant to Pursuant to Public Resources Code 21080.3.1 (Assembly Bill 52 - Gatto).

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

- Flaherty Cultural Resource Services, November 18, 2018, Cultural Resource Reconnaissance of 40+/- Acres Near Foss Valley, Napa County, California.

Flaherty Cultural Resource Services 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; 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 resource reconnaissance (Flaherty Cultural Resource Services, November 2018) conducted for the project parcel identified one cultural resource, a rock fence, within the proposed development area. The dry-laid rock fence is in the southwest portion of the parcel (within proposed Block 4) and consists undifferentiated stacked field cobbles. The project as proposed would impact the rock fence, which is considered a significant impact. With implementation of **Mitigation Measure BR-1** this resource would be completely avoided and provided with a minimum 20 foot protective buffer, thereby reducing this potential impact to a less than significant level.

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

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

**Cultural Resources – Conditions of Approval:**

Discovery of historical and archaeological resources, or human remains during construction, grading, or other earth moving activities:

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. ENERGY.</b> 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 six months. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient compared with other similar agricultural construction sites within Napa County.

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

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

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VII. GEOLOGY AND SOILS.</b> Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				

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

- |      |   |                          |                          |                                     |                                     |
|------|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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 checked="" 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 a unique paleontological resource or site or unique geologic feature?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 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. The closest active fault to the project site is the Soda Creek Fault (undifferentiated Quaternary) less than 1 mile south (Napa County GIS faults and earthquakes layers). Therefore, no impact would occur.
  - ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological Society, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.
  - iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project 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, this impact would be less than significant.
  - iv) Landslides, landslide deposits, and areas of instability have not been identified within the project parcel (Napa County GIS landslide layer). Therefore, no impact would occur.
- b. The project site’s soils are mapped as Aiken loam with 30 to 50% slopes, Boomer-Forward-Felta complex 30 to 50% slopes, Hambright-Rock outcrop complex 2 to 30% slopes, and Hambright-Rock outcrop complex 30 to 75% 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 PPI Engineering (**Exhibit E**), the proposed conversion of approximately 16 acres of non-native grassland and coast live oak woodland to vineyard and the operation of the 0.9-acre existing vineyard is anticipated to reduce soil loss, or surface erosion, within the project area as compared to existing conditions (**Table 6**)<sup>14</sup>. Under existing conditions, the annual soil loss is anticipated to average 67.34 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 50.43 tons per acre per year, or a reduction of approximately 25% 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)
1	52.37	41.89	-10.48	-20.00
2	5.75	1.15	-4.60	-8.00
3	0.17	0.14	-0.03	-17.65
4	8.02	6.41	-1.60	-20.07
5	1.04	0.83	-0.21	-20.19
<b>Vineyard Totals</b>	<b>67.34</b>	<b>50.43</b>	<b>-16.92</b>	<b>-25.11</b>

Source: PPI Engineering, May 2019

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

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

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

The following conditions shall be incorporated by referenced into Erosion Control Plan #P18-00445-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 avenues, rocked crossings, and permanent no-till cover, shall be installed no later than October 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 “Oversight and Operation” the qualified professional that has prepared this erosion control plan (#P18-00445-ECPA) shall oversee its implementation throughout the duration of the project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of

<sup>14</sup> On August 14, 2019 the Engineering Division determined the project’s modeling technical adequate.

80% within the vineyard and vineyard avenues. The cover crop may be strip sprayed, with a strip no wider than 1 foot (12 inches) wide at the base of vines, with post-emergent herbicides: no pre-emergent sprays shall be used. Should the permanent no till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

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

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

Furthermore, with implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the acreage of the project by approximately 5.1 acres, it is anticipated that 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 Aiken loam, which exhibits low to moderate shrink-swell potential, Hambright-Rock outcrop, which exhibits low shrink-swell potential and Boomer-Forward-Felta Complex, which exhibits low and 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 site. Due to the nature of the soils in the project parcel and the nature of the project (which would involve relatively shallow vineyard), the probability of encountering paleontological resources within the project area is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

**Paleontological Resources – Conditions of Approval:**

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

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

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Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VIII. GREENHOUSE GAS EMISSIONS.** Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment? | <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 (CO<sub>2</sub>), methane, ozone, and the fluorocarbons, which contribute to climate change. CO<sub>2</sub> 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<sub>2e</sub>) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD’s CEQA Guidelines. In this case CO<sub>2</sub> is used as the reference atom/compound to obtain atmospheric carbon CO<sub>2</sub> effects of GHG. Carbon stocks



are converted to CO<sub>2e</sub> 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>).<sup>15</sup>

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<sub>2e</sub> of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO<sub>2e</sub> of construction equipment emissions per acre of vineyard development.<sup>16</sup> Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 21.7 gross acres of vineyard development would be approximately 204 MT CO<sub>2e</sub> (21.7 acres multiplied by 9.4 MT CO<sub>2e</sub>).

**Project Site Emissions:** Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 16.9 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 1,031.42 MT C or approximately 3,785.31 MT CO<sub>2e</sub> (**Table 7**).

**Table 7 – Estimated Development Area Carbon Stocks/Storage**

Vegetation Type/Carbon Storage <sup>1</sup>	Project Acreage	Carbon Storage/Stock per Acre (MT C/acre) <sup>1</sup>	Total Carbon Storage (MT)	Total Carbon Storage in MT CO <sub>2e</sub>
Oak Woodland	10.70	95.1	1,017.57	3,734.48
Grasslands	9.89	1.4	13.85	50.83
<b>Total</b>			1,031.42	3,785.31

<sup>1</sup> Does not include the existing vineyard or proposed rock water crossings.

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%.<sup>17</sup> Using 50% as a more conservative estimate, the proposed project

<sup>15</sup> “Carbon stock” refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO<sub>2</sub>. 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).

<sup>16</sup> 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.

<sup>17</sup> Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 3,547.53 MT CO<sub>2e</sub> (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) <sup>1</sup>	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO <sub>2e</sub>
Oak Woodland	10.70	89.6	958.72	3,518.50
Grasslands	9.89	0.8	7.91	29.03
<b>Total</b>			966.63	3,547.53

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<sub>2e</sub> of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO<sub>2e</sub> of operational emissions per acre of vineyard per year. Using this emission factor it is anticipated that Operational Equipment Emissions associated with the proposed 21.7-acre agricultural development would be approximately 14.54 MT CO<sub>2e</sub> (21.7 multiplied by 0.67 MT CO<sub>2e</sub>).

**Operational Sequestration Emissions:** Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that grasslands sequester a negligible quantity of CO<sub>2</sub> acre per year (essentially zero). Because the 2012 Draft CAP does not identify sequestration factors for the grasslands vegetation type, the sequestration factor for Croplands of 0.057 MT C per acre per year has been attributed to the grasslands that are proposed for removal to provide the most conservative GHG emission estimate. Utilizing 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 5.11 MT C per year or 18.75 MT CO<sub>2e</sub> per year<sup>18</sup>.

Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops, which are also photosynthetic plants, tends to result in less soil CO<sub>2</sub> loss from vineyard soils. Carbon sequestration loss would be further offset by the proposed vineyard, which would likely act as a sink for atmospheric CO<sub>2</sub>, 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 3,751.51 MT CO<sub>2e</sub> and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 33.29 MT CO<sub>2e</sub> per year (Table 9).

**Table 9 – Estimated Overall Project-Related GHG Emissions**

Construction Emissions in Metric Tons of CO <sub>2e</sub>		Annual Ongoing Emissions in Metric Tons of CO <sub>2e</sub>	
Source	Quantity	Source	Quantity
Vehicles and Equipment	204	Vehicles and Equipment	14.54
Vegetation and Soil	3,547.53	Loss of Sequestration	18.75
<b>Total</b>	3,751.51	<b>Total</b>	33.29

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 3,751.51 MT CO<sub>2e</sub> 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.

<sup>18</sup> 9.89 acres of grassland times 0.057 MT C = 0.56 MT C, and 10.7 acres of oak woodland times 0.425 MT C = 4.55 MT C, totaling 5.11 MT C

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.2% 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 Measures BR-1 and BR-3**, the project would be reduced by approximately 5.1 acres, consisting of coast live oak woodland and non-native grassland vegetation type, which would reduce one time emissions by approximately 957.29 MT CO<sub>2e</sub>, and operational emissions by approximately 8.49 MT CO<sub>2e</sub>/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 33.29 MT CO<sub>2e</sub> per year, which is well below the threshold of 1,100 MT CO<sub>2e</sub> 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.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. HAZARDS AND HAZARDOUS MATERIALS.</b> 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 chemicals such as herbicides, mildewcides, and fertilizers to the site that are considered hazardous materials. Herbicide applicators must be licensed by the state, and the Napa County Agricultural Commissioner enforces application of pesticides and regulates applicators.

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

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

Chemicals for vineyard operation would be mixed at the existing barn west of Block 5 and would be stored in a locked room inside the barn. The nearest water source (i.e., seasonal wetland) on the project parcel is approximately 50 feet south of the barn. The soil and vegetation contained in the space between the mixing area and the seasonal wetland would trap pollutants, which are then naturally filtered and reduced through the soil. The onsite well is approximately 300 feet away. Fertilizers would be applied as necessary to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vineyards for weed management. Project storage and staging areas would be located within proposed vineyard blocks (i.e., within clearing limits).

There are two seasonal wetlands within the project parcel that transect the southwestern and southeastern portions of the parcel and cut off access to the proposed vineyard blocks. Three rocked water crossings are proposed to access the vineyard blocks. The rocked crossings would be permitted separately with the USACE and the Regional Water Board through the Section 404 and 401 processes, respectively, and the permittee shall comply with all conditions of the permits. With the implementation of **Mitigation Measure BR-1** and the removal of Block 2 from the proposed project, only two rocked water crossings would be built. Other than at the crossings, the seasonal wetlands are avoided by the proposed vineyard blocks with a minimum 50-foot buffer, which includes a 26-foot undisturbed filter strip and a 24-foot turnaround avenue. Buffers between the clearing limits and the wetlands also would increase as a result of reductions in the vineyard acreage in Blocks 1 and 4 with implementation of **Mitigation Measure BR-1**.

The risk of potentially hazardous materials reaching or affecting adjacent wetlands or other aquatic resources is significantly reduced because: i) aquatic resources within the parcel are over 50 feet from the proposed development area; ii) project staging and storage areas would be over 50 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 (should the proposed project be approved), impacts associated with the use and transport of hazardous materials would be less than significant.

- c. The closest school (Vichy Elementary School) is located approximately 2.7 miles to the south of the project site in Vichy Springs. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). Therefore, no impact would occur.
- e. The closest public airport to the project site is the Queen of the Valley Hospital Heliport, located approximately 4.4 miles southwest, and the Moskowitz Airport located approximately 6.2 miles northeast. No portion of the proposed project is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.

- f. There would be negligible numbers of workers visiting the project parcel on a temporary basis for ECP and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in no permanent substantial increase in the number of people working or residing at the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and no impact would occur.
- g. No structures are proposed as part of the project. The project site is located in an area identified as having moderate 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
<b>X. HYDROLOGY AND WATER QUALITY.</b> 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 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 site is located in the Milliken Creek Main Fork watershed below the Milliken Reservoir. The Milliken Creek Main Fork drainage is tributary to the Napa River which is designated critical habitat for steelhead (Napa County GIS USFWS critical habitat layer). The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the CWA. Historically, the construction of large dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by

dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

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

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan"<sup>19</sup>; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board<sup>20</sup>.

There are no actively flowing drainages and/or creeks on the project parcel; thus, onsite drainage is strictly ephemeral and flows only occur during and directly after rainfall. Precipitation infiltrates quickly resulting in short-lived sheetflows that either exit the site towards Atlas Creek Road to the south, or collect within two seasonal seep-swales complexes that occupy 0.87 acre of the project parcel.

- a. Waste discharge is not anticipated as part of the project or ongoing vineyard operations; therefore, the proposed project would not violate waste discharge requirements.

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project area. Agricultural Erosion Control Plan #P18-00445-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and this impact would be less than significant.

- b. The County requires all ECPA applicants to complete necessary water analyses in order to document that sufficient water supplies are available for a proposed project. On June 28, 2011, the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, and well pump test protocols, management objectives, and community support. The County completed a countywide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report, 2011) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan, 2013). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (2013).

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

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<sup>19</sup> 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.

<sup>20</sup> [https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/agriculture/vineyard/](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/agriculture/vineyard/)

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, February 2019 - **Exhibit D**). 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 the one onsite well as identified in the WAA (RCS, February 2019 - **Exhibit D**). Water demands for the existing vineyard (Block 5) and onsite residence are currently being met by pumping groundwater from the well. The approximately 0.9 acre of existing vineyard is irrigated with 0.45 acre-feet per year (AF/year) and the 1.78 acres of developed land and landscaped areas are irrigated with 0.80 AF/year, for a total existing water demand of approximately 1.25 acre-feet per year (AF/year).

Typically, the annual irrigation season ranges from late May to September. Water use for frost protection is not proposed. After full development, the proposed project would result in approximately 8.45 AF/year of groundwater demand due to the installation of new vineyard and the irrigation of the existing 0.9 acre vineyard. With the 0.80 AF/year demand for the developed land and landscaped areas, the total future groundwater demand for the parcel is anticipated to total approximately 9.25 AF/year (**Table 10**). The proposed project would be developed in one phase and would consist of approximately 16.9 acres of planted acres.

**Table 10 – Pre- and Post-Project Parcel Water Use**

Property Water Use	Pre-project (acre-feet/year)	Post-project (acre-feet/year)
Vineyard irrigation, landscape and residential	1.25	9.25

Source: RCS Results of Napa County Tier I Water Availability Analysis for Hess Persson New Vineyard Development, February 8, 2019 - **Exhibit D**

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 32.7 inches per year over the approximately 40.1 acres of the parcel's land area available for recharge and a 9% deep percolate recharge estimate, estimates the average annual groundwater recharge of the parcel to be approximately 9.86 AF/year (see **Exhibit D** 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 groundwater demand of 9.25 AF/year, which is below the estimated average annual recharge volume of 9.86 AF/year. Furthermore, with implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the project by approximately 5.1 acres, would result in a gross development of approximate 16.6 acres, thereby reducing anticipated long term overall water use by approximately 2.3 AF/year from 9.25 AF/year to approximately 8.5 AF/year.

Considering: i) anticipated annual water use of the project parcel for existing and proposed use of approximately 9.25 AF/year is below the parcel's anticipated annual groundwater recharge rate of approximately 9.86 AF/year; ii) implementation of **Mitigation Measures BR-1 and BR-3** would reduce anticipated long term overall water use by approximately 2.3 AF/year from 9.25 AF/year to approximately 8.5 AF/year; iii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and iv) incorporation of the standard water use condition below to 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 is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

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

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

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

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include a no-till cover crop with vegetative cover density of 80% (including 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, C and D** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include rock-filled avenues, and straw wattles. 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.

Proposed rock-filled avenues would be constructed along the field edges of certain vineyard blocks from excess fieldstone as show in **Exhibit A**. The rock-filled avenues would typically be on the downslope side of a vineyard block and would function as a stabilization and dispersal method to slow down runoff and encourage infiltration back onto the native ground surface.

A Hydrologic Analysis for the project was prepared by the Project Engineer (PPI Engineering, May 16, 2019 - **Exhibit C**). The project site is contained within four watershed basins. Watersheds 1 through 3 contribute runoff to the seasonal swales that are located on the parcel and Watershed 4 encompasses a small area located in the southeast corner of the property. Runoff leaving the property eventually drains to Milliken Creek and thence the Napa River. The Hydrologic Analysis utilized the Natural Resource Conservation Service (NRCS) Technical Release 20 (TR-20) method to conclude that there would be no change or a decrease in peak flow for all watersheds in the project parcel (**Table 11**)<sup>21</sup>. The Hydrologic Analysis also concluded that the runoff time of concentration, which is the time it takes for runoff to flow from the upper most point in each watershed to the watershed's outlet, is anticipated to remain the same as existing conditions.

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

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
<b>Watershed 1</b>				
Pre-project conditions	8.18	22.33	39.05	46.63
Post-project conditions	7.48	21.26	37.72	45.22

<sup>21</sup> On August 14, 2019 the Engineering Division determined the project's modeling technical adequate.



	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Change (cfs)	-0.70	-1.07	-1.33	-1.41
Change (%)	8.56%	4.79%	3.41%	3.02%
<b>Watershed 2</b>				
Pre-project conditions	5.52	15.06	26.26	31.36
Post-project conditions	4.06	13.63	24.48	29.46
Change (cfs)	-0.92	-1.43	-1.78	-1.90
Change (%)	26.45%	9.5%	6.78%	6.06%
<b>Watershed 3</b>				
Pre-project conditions	3.43	9.51	16.77	20.07
Post-project conditions	3.13	9.05	16.19	19.46
Change (cfs)	-0.30	-0.46	-0.58	-0.61
Change (%)	-8.75%	-4.84%	-3.46%	-3.04%
<b>Watershed 4</b>				
Pre-project conditions	0.55	1.23	1.98	2.32
Post-project conditions	0.55	1.23	1.98	2.32
Change (cfs)	0.0	0.0	0.0	0.0
Change (%)	0%	0%	0%	0%

Source: PPI Engineering, May 16, 2019, Revised Hydrologic Analysis, Hess Collection Winery Track I ECP #P18-00445-ECPA, 2847 Atlas Peak Road; APN 039-080-042 - **Exhibit C**

The proposed project's not increasing runoff flow rates 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 Measures BR-1 and BR-3**, which would reduce the project by approximately 5.1 acres, is anticipated to result in similar hydrologic effects/rates.

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

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly<sup>22</sup>. 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.

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan - Safety Element. pg. 10-20). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project area and project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources) and IX (Hazards and Hazardous Materials)**, buffers provided in the ECP adjacent to drainage courses and watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could 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 question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

<sup>22</sup> Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted.

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 16.92 tons/year, have a decrease or 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. Additionally, with the implementation of **Mitigation Measures BR-1** buffers from on-site aquatic resources (ephemeral drainages and wetlands) would increase above the minimum of 50 feet.

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 (should the proposed project be approved), would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XI. LAND USE AND PLANNING.</b> 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion**

- a. The proposed site is in a rural area of Napa County and the nearest established community, Vicky Springs, is approximately 1.3 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 (should the proposed project be approved), the project has been found consistent with applicable code requirements and General Plan Goals and Policies, including but not limited to the following:

- The project as proposed is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the project is anticipated to decrease soil loss and potential sedimentation by approximately 25% 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, BR-2, and BR-3** 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. The project as proposed with implementation of **Mitigation Measures BR-1 and BR-3** would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the parcel. With implementation of **Mitigation Measures BR-2 and BR-3** potential impacts to special-status bird and bat species would be avoided. Furthermore, implementation of these 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 17 acres of additional agriculture to be developed and operated on the project parcel.
- With implementation of **Mitigation Measures BR-1, BR-2, and BR-3** 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, BR-2, and BR-3** 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 (**Exhibit B-1**).
- The project is consistent with Policy CON-30, which encourages the avoidance of wetlands. The seasonal wetlands onsite are avoided with a minimum 50-foot buffer, which includes a 26-foot undisturbed filter strip and a 24-foot turnaround avenue. As proposed 0.01 acre (totaling 64.4 feet) of seasonal wetlands occur within the location of three proposed rocked water crossings. With implementation of **Mitigation Measure BR-1** and the removal of Block 2 from the proposed project, only two rocked water crossings would be built, totaling 0.01 acre (48.3 feet).
- The project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With incorporation of the fencing conditions of approval, and the project's small amount of proposed new fencing, 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 incorporation of the Permanent Erosion and Runoff Control Measures condition of approval, the project would reduce soil loss and sedimentation, and result in no change to runoff.
- The project as proposed is consistent with Policy CON-65b. Due to the project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The project as proposed is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The project as proposed is consistent with General Plan land use designation of Agricultural, Watershed and Open Space (AWOS), and is therefore consistent with Policy AG/LU-20.

For these reasons, the project, with 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
<b>XII. MINERAL RESOURCES.</b> 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 Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is located over 7 miles to the south of the project site. Proposed site improvements and development of vineyard on the parcel would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII. NOISE.</b> 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 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 closest offsite residences are located approximately 1,065 feet to the north, approximately 1,269 feet to the southeast and approximately 1,588 feet to the southwest. Additionally, adjacent proprietries and properties in the immediate area contain vineyard.

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

**Table 12 – Construction Equipment Noise Emission Levels**

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

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

**Table 13** characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA. Based on distances to existing residences, noise associated with project construction would be approximately 50 to 55 dBA at the nearest existing offsite residences.

**Table 13 – Estimated Distance to dBA Contours from Construction Activities <sup>1</sup>**

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

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

Blasting could occur during construction and would involve the use of explosives to break apart rocks, which has the potential to cause vibration. 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 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 are not anticipated to be impacted by blasting activities considering the temporary short-term nature of this activity and distances to surrounding residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, Version 1, November 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. **Table 14** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

**Table 14 – Estimated Distance to dBA Contours from Farming Activities <sup>1</sup>**

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

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be 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.

- b. 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
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**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"/>
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- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

**Discussion**

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XV. PUBLIC SERVICES.</b> 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
<b>XVI. RECREATION.</b> 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, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVII. TRANSPORTATION.</b> 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. Currently, the project parcel is developed with approximately 0.9 acre of existing vineyard, one single-family residence with approximately 1.78 acres of developed and landscaped areas, a barn, a paved access road from Atlas Peak Road, vegetated vineyard avenues, and one groundwater well.

The proposed project is expected to generate approximately 12 one-way trips per day during construction and installation for anticipated work crews of 12 employees. Six truck trips would deliver and remove heavy equipment at the start and end of project construction. Vehicular equipment anticipated for project implementation typically includes a tractor/trailer, D9 bulldozers, backhoe, excavator, dump truck, pickup trucks, water truck, flatbed trucks, and ATVs. Pruning would occur approximately 10 days of the year and is anticipated to generate 10 daily employees, resulting in approximately three one-way trips per day during pruning. Weed control would occur between January/February and July/August (outside of pruning months) and is anticipated to generate 10 employees. Harvest is anticipated to generate up to 10 daily employees resulting in approximately three one-way trips per day for a period of 10 days of the year. Eight grape haul trucks would be used during harvest and an additional 12 trucks would be used during the remainder of the year. Vehicular equipment for ongoing vineyard maintenance is anticipated to include ATVs, tractors, truck and equipment trailers, and passenger cars and/or light trucks. Some of this traffic already exists onsite due to the operation and maintenance of the existing vineyard. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

The project site is accessed from Atlas Peak Road, approximately 3 miles northeast of its intersection with California State Route 121/Monticello Road. Trucks and other equipment would use County roads or State highways for very short periods during construction and subsequent vineyard operation.

Traffic generated by construction of the proposed project and subsequent vineyard operation, including harvest, would increase traffic on area roadways and result in additional vehicle miles traveled compared to current conditions. These activities would occur on a temporary and/or seasonal basis, and they would generally occur during non-peak hours. Trips already occur due to the existing vineyard and it is anticipated that a number of existing employees would be utilized to develop and manage the proposed vineyard. 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 Atlas Peak Road for project development (**Figures 1-3**). The project does not include roadway improvements and/or modifications to Atlas Peak Road, or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the property and other agricultural uses in the area. Therefore, the potential for the creation, substantial increase in hazards or hazards due to a geometric design feature and incompatible uses would be a less than significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project parcel and project area, resulting in no impact.



Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Discussion**

On January 29, 2019, the County notified pursuant to Public Resources Code Section 21074 (AB-52: Gatto) the Mishewal Wappo Tribe of Alexander Valley, the Yocha Dehe Wintun Nation, and Middletown Rancheria of the proposed project. On February 1, 2019, the County received a response letter from Middletown Rancheria indicating they have no specific comments at this time; on October 21, 2019, the County sent notification to the Middletown Rancheria acknowledging their response letter and closing the consultation invitation. The Yocha Dehe Wintun Nation and Mishewal Wappo Tribe of Alexander Valley did not request consultation within the 30-day notification period and on October 21, 2019, the County sent consultation closure notices to the Tribes.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project's Cultural Resource Reconnaissance (Flaherty Cultural Resource Services, November 18, 2018), one cultural resource, a rock fence was discovered within the project parcel. The rock fence is in the southwest portion of the parcel (within proposed Block 4). With implementation of **Mitigation Measure BR-1** this resource would be avoided which would reduce potential impacts to the resource to a less than significant level.

As such, the proposed project, with implementation of **Mitigation Measure BR-1** and incorporation of the Cultural Resources conditions of approval (should the proposed project be approved), 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
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**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?

**Discussion**

- a. The proposed project would generate a minimal number of employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the property on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater and one existing groundwater well would provide irrigation water to the vineyard. Irrigation pipelines would be located within existing roadways and/or within proposed clearing limits. The proposed project would include the installation of a limited number of onsite storm water drainage features such as straw wattles, water bars, and a permanent no-till vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage system is described in **Sections IV (Biological Resources), VII (Geology and Soils), and X (Hydrology and Water Quality)**. As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in **Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources) and IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.
- b. The approximately 21.7 gross acres of vineyard (approximately 16.9 net acres) would be irrigated by one existing onsite well. The WAA conducted by RCS (**Exhibit D**) concluded that after full development, water use for the 16.9 acres of vineyard and onsite residence is estimated to be 9.25 AF/year, which is an increase of 8.0 AF/year from the current onsite water use. Based on site-specific recharge and analysis the project parcel is estimated to have a total groundwater allotment of 9.86 AF/year. The proposed project's estimated water demand of 9.25 AF/year represents 94% of the groundwater allotment once the vines are mature. RCS estimated approximately 140.4 AF of groundwater is currently in storage beneath the project parcel, and that during a prolonged drought (estimated to last six years), groundwater recharge would be reduced to 48% of the average annual recharge, or 4.73 AF/year (28.4 AF in six years). To meet six years of groundwater demand, the proposed project would require 55.5 AF. Based on these estimates, there would be a recharge deficit of 27.1 AF during a prolonged drought. Water to meet a prolonged drought would be available during drought periods from the approximately 140.4 AF of groundwater estimated to be in storage beneath the project parcel. Removing approximately 27.1 AF of deficit over the entire six-year period may cause water levels to decrease beneath the project parcel. 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, with implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the project by approximately 5.1 acres, the percentage of groundwater removed from storage over a six-year period would be even less. Therefore, the proposed project would have less than significant impact on water supplies. 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. Rock not used immediately would be stockpiled for future use inside the proposed clearing limits. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, end posts, etc.) would be negligible. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of onsite by spreading it back into the vineyard, burning it, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, State, and local statutes and regulations. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. <b>WILDFIRE.</b> 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 Moderate Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). The project site is approximately 0.25 mile northwest from a State Responsibility Area that has been designated as a Very High Hazard Severity Zone and approximately 1.2 miles northeast from a Local Responsibility Area (LRA) designated as a Very High Hazard Severity Zone. The project site is gently to steeply sloped with a predominantly southern-facing aspect, and elevations range from approximately 980 to 1,240 feet above msl. The majority of the project vicinity was burned in the Atlas Fire of October 2017. The fire intensity was at a level which charred trees and large shrubs and cleared the herbaceous layer.

- a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site and project area. Therefore, the proposed project would not impact an adopted emergency response plan or emergency evacuation plan.
- b-c. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary due to the short duration of construction (approximately six months). Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk and this impact would be less than significant.
- d. Although the proposed project would alter land cover and could include burning cane, the project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would be no change or a decrease in peak flow for all watersheds in the project site (see **Section X [Hydrology and Water Quality]**). The onsite residence is located at the highest elevation point within the parcel boundary and 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 substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have the impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <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 (should the proposed project be approved).

- a. As discussed in this Initial Study, implementation of #P18-00445-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 plants Greene's narrow-leaved daisy and nodding harmonia and their habitats have been identified on the subject property and within the project area. Greene's narrow-leaved daisy is a CNPS List 1B species. Nodding harmonia is a CNPS List 4 species. With incorporation of **Mitigation Measures BR-1 and BR-3**, a majority of the special-status plants and the majority of the project parcel's coast live oak woodland special-status plant species habitat would be avoided and preserved (**Table 5**).

Implementation of **Mitigation Measures BR-1, BR-2, and BR-3** would avoid potential direct and indirect impacts to special-status plant, bat and bird species. Existing deer fence surrounds the existing vineyard block and part of the southeastern boundary of the parcel. The proposed new vineyard blocks would be fenced individually and in clusters where appropriate. 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. While the proposed project (vineyard blocks) would result in portions of the site having reduced potential for on-site wildlife movement, the retention of blocks of vegetation with direct connectivity with similar habitats on neighboring properties would allow for continued local wildlife movement. As such, the proposed alterations to the deer fencing array would not introduce any new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant, and the range of special-status plant species would not be restricted, cumulative impacts are anticipated to be less than significant. Two seasonal wetlands occupy 0.87 acre of the project parcel as seep-swale complexes. The seasonal wetlands onsite are avoided with a minimum 50-foot buffer, which includes a 26-foot undisturbed filter strip and a 24-foot turnaround avenue. Three rocked water crossings (0.01 acre, totaling 64.4 feet) are proposed for traffic crossing during low flow or dry conditions to ensure stability of drainage crossing and minimize sedimentation caused by vineyard traffic. With implementation of **Mitigation Measure BR-1** and the removal of Block 2 from the proposed project, only two rocked water crossings would be built, totaling 0.01 acre (48.3 feet). To ensure potentially significant impacts to cultural resources are reduced to a less than significant level, a 20-foot buffer would be maintained around the rock fence within Block 4 with the implementation of **Mitigation Measure BR-1**. With incorporation of standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Therefore, the proposed project as designed with the incorporation **Mitigation Measures BR-1, BR-2, and BR-3** 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 Milliken Creek Main Fork Drainage. The Milliken Creek Main Fork Drainage contains approximately 4,504 acres. In 1993, vineyard acreage within this drainage was approximately 194 acres, or 4.3% of the drainage. Since 1993 approximately 156 acres of additional vineyard (or 3.5% of the drainage) have been developed to vineyard, resulting in approximately 7.8% of the drainage (or approximately 350 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Milliken Creek Main Fork Drainage, that there are approximately 1,391 acres (30.9% of the drainage) having the potential to be developed to vineyard, this in conjunction with existing and approved vineyard development (approximately 350 acres) results in a total potential build out of approximately 1,741 acres or approximately 38.7% of the drainage. The PPS layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

While it is not possible to quantify precisely the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Milliken Creek Main Fork Drainage) over the last 26 years (1993-2019) were used to project an estimation of vineyard development for the next three to five years. Over the past 26 years within the Milliken Creek Main Fork Drainage, approximately 13.5 acres of agriculture were developed per year (350 divided by 26). 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 40.5 to 67.5 acres over the next three to five years within the Milliken Creek Main Fork Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON 24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that

further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

#### ***Air Quality and GHG - Sections III and VIII:***

The project (#P18-00445-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the air basin that would generate emissions of criteria pollutants, including suspended particulate matter (PM) and equipment exhaust emissions. For construction-related dust impacts the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in **Section III (Air Quality)** and shown in **Table 3** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the project would be subject to standard air quality conditions of approval (should the project be approved) that 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 gases that contribute to climate change (**Tables 7 and 8**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes the installation of grapevines and a permanent no-till cover crop, which may off-set (in whole or in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval. Furthermore, with implementation of **Mitigation Measures BR-1 and BR-3**, which would reduce the acreage of the project by approximately 5.1 acres, it is anticipated that GHG emissions and loss of sequestration associated with the project would be further reduced and therefore, result in a less than significant cumulative considerable impact.

#### ***Biological Resources - Section IV:***

A project specific Biological Resources Reconnaissance Survey (WRA, October 2018 - **Exhibit B-1**) 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; this record search was updated on March 1, 2019. The records search included the CNDDDB and CNPS databases. As discussed in **Section IV (Biological Resources)**, two special-status plant species (Greene's narrow-leaved daisy and nodding harmonia) were identified in the subject project parcel and project area. With implementation of **Mitigation Measure BR-1**, the project would preserve a majority of the undisturbed special-status plant species in retained connected habitat blocks occurring on the parcel and would provide the opportunity for these species to maintain viable populations both on the property 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 sensitive habitat would be avoided through implementation of **Mitigation Measures BR-1, BR-2, and BR-3** and incorporation of the standard conditions of approval for fencing and tree/woodland protection. Two seasonal wetlands occupy 0.87 acres of the proposed project site as seep-swale complexes, with 0.01 acre (totaling 64.4 feet) occurring within the location of three proposed rocked water crossings. With implementation of **Mitigation Measure BR-1** and the removal of Block 2 from the proposed development area, only two rocked water crossings would be built totaling 0.01 acre (48.3 feet). The crossings would be rock-lined pursuant to the engineered ECP (**Exhibit A**), and would be used minimally in the winter months. The permittee will be required to obtain permits (i.e., Section 404 Clean Water Act Nationwide permit and Section 401 Water Quality Certification) from regulatory agencies for the installation of the crossings. The permittee shall comply with all conditions of the permits. The permittee shall ensure a no net loss of wetlands through, but not limited to, compensatory mitigation through purchase of mitigation credits or by creating or restoring waters onsite at a minimum of 1:1 ratio. In addition, the permittee shall comply with the State's General Waste Discharge Requirements for Vineyard Properties in the Napa River and Sonoma Creek Watershed issued by the Regional Water Board. The remainder of the wetlands are avoided with a minimum 50-foot buffer, which includes a 26-foot undisturbed filter strip and a 24-foot turnaround avenue. 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:***

One cultural resource was identified in the project area, a rock fence. The isolated finding was documented and the Cultural Resource Study deemed no further investigation or protection is warranted. Implementation of **Mitigation Measure BR-1** would avoid any potential impacts to the identified rock fence by removing from the proposed development area reducing potential impacts to the resource. With the incorporation of standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural and tribal resources are not expected (see **Section V [Cultural Resources]** and **Section XVIII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified 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 16.92 tons/year 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 Milliken Creek Main Fork Drainage; therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

### **Hydrology and Water Quality - Section X:**

Water use calculations provided in the WAA prepared by RCS (February 2019 - **Exhibit D**) indicate that the proposed development consisting of approximately 16.9 net acres of planted vineyard would result in approximately 8.45 AF/year of additional groundwater use compared to the approximately 1.25 AF/year used under current conditions, totaling approximately 9.25 AF/year (**Table 11**). Winery process water and domestic water use would continue to be provided by the current existing Onsite Well located on the property.

The average annual rainfall utilized in the groundwater recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions. Based on annual average rainfall for the area (approximately 32.7 inches per year) and the size of the subject property (approximately 40.1 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 9% of average rainfall or 9.86 AF/year would be available for groundwater recharge.

Considering the anticipated water use for existing uses and proposed vineyard of 9.25 AF/year is below the properties anticipated annual groundwater recharge rate of approximately 9.86 AF/year, and that implementation of the standard water use condition and **Mitigation Measures BR-1 and BR-3**, which would reduce the acreage of the project by approximately 5.1 acres, potential impacts associated with groundwater use would be further reduced and 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 the TR-20 Runoff Model has been prepared by PPI Engineering (Revised May 2019 - **Exhibit C**). 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**), therefore no significant impacts due to changes in hydrology are expected.

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

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

### **Land Use and Planning - Section XI:**

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

### **Proposed Project Impacts found to be Less Than Significant**

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the project: Aesthetics, Agriculture and Forestry Resources, Energy, Hazards and Hazardous Materials,

Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form of heat lights or downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the project is considered to be less than cumulatively considerable. The project does not conflict with any current zoning for agricultural or forestry use, nor does the project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. There are no known mineral resource areas within the project site or immediate vicinity. This project would generate noise levels that are considered normal and reasonable for agricultural activities and consistent with the County's "Right to Farm" Ordinance. The potential contribution to noise or vibration impacts is considered less than cumulatively considerable. Traffic related to construction and farm worker trips would not increase by a discernible amount and the relatively low 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 for utilities and service systems. For these reasons, impacts associated with the project that may be individually limited, but cumulatively considerable, would be less than significant.

Considering the project site's characteristics, surrounding environment, and the scope and scale of the proposed project, 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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- Figure 2 Site Location Map (2018 Aerial)
- Figure 3 Project Parcel and Project Area Air Photo
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**LIST OF EXHIBITS:**

- Exhibit A Agricultural Erosion Control Plan #P18-00445-ECPA
- Exhibit B-1 Biological Resources Reconnaissance Survey Report
- Exhibit B-2 Response to Napa County Comments on Biological Resources
- Exhibit C Hydrologic Analysis
- Exhibit D Water Availability Analysis
- Exhibit E Soil Loss Analysis
- Exhibit F Project Revision Statement