

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

**Initial Study Checklist**  
(form updated January 2019)

1. **Project Title:** 1260 Shady Brook Vineyard Track I Agricultural Erosion Control Plan Application (ECPA) P25-00011-ECPA
2. **Property Owner:** Daniel & Deborah Quinn-Chen
3. **County Contact Person, Phone Number and email:** Kelli Cahill, Planner III, (707) 265-2325, kelli.cahill@countyofnapa.org
4. **Project Location and Assessor's Parcel Number (APN):** 1260 Shady Brook Ln, Napa, APN 052-190-013-000 (**Figures 1 and 2**)  
Section 5, Township 5 North Range 3 West, Mt. Diablo and Merdian  
Latitude: 38 18 5.70N / Longitude: 122 12 54.50W
5. **Project sponsor:** Daniel Chen  
1453 Drake Avenue  
Burlingame, CA 94010  
**Plan Preparer:** Michael Muelrath, P.E.  
Applied Engineering, Inc.  
2160 Jefferson Street, Suite 120  
Napa, CA 94559
6. **General Plan description:** Agriculture, Watershed, and Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Background & History:** The approximately 41.8-acre parcel includes a single-family residence, 2<sup>nd</sup> dwelling, pool, utility shed, tennis court, associated landscaping and an access road.
9. **Description of Project:**

The proposed project involves the clearing of vegetation, earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 1.3 gross acre of new vineyard (i.e., development area, proposed clearing limits; approximately 1.0 net acres of vines) within two vineyard blocks, Block 1 and Block 2, located on an approximate 41.8-acre parcel (i.e., project site) (Figure 3). Average slopes within the development area range from 18 percent (%) to 23% with no acreage on slopes over 23%. The project proposes to remove approximately seven (7) trees; the applicant proposes to minimize the amount of oak woodland removed; however, approximately 0.2 acres (7 trees) of the 23.5 acres of mapped oak woodland are located within the development area. Approximately 0.42 acres of oak woodland exist on slopes less than 30% and outside setbacks of drainages within the parcel have been identified for permanent preservation. Rock is expected to be generated by vineyard development, which shall remain onsite used for road base and vineyard avenues. The existing and proposed vineyard blocks would be irrigated via a drip irrigation system from an existing groundwater well. The parcel has one groundwater well that serves the existing residence, 2<sup>nd</sup> dwelling, landscaping and will supply water to the proposed vineyard. The project includes installation of permanent deer fencing to enclose the proposed vineyard blocks and residential development area (**Exhibit A**). Erosion Control Measures: Temporary erosion control measures include water bars, silt fencing, and straw wattles and the application of straw mulch at a rate of 3,000 pounds per acre. Permanent erosion control measures include a permanent no-till cover crop maintained at a minimum vegetation cover density of 75%. Details of the proposed erosion control measures are provided in the 1260 Shady Brook Vineyard ECP #P25-00011-ECPA, dated June 10, 2025, prepared by Michael R. Muelrath (Registered Professional Engineer No. 67435) of Applied Engineering, Napa, California (**Exhibit A**).

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

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

- a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 7-foot on the contour pacing pattern.

- 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), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. Pre-emergent herbicides would not be strip sprayed in the vine rows for weed management. The vineyard is proposed to be farmed organically.

**Table 1** lists a general schedule for the construction of the proposed project as identified in # P25-00011-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on # P25-00011-ECPA.

**Table 1 – Implementation Schedule**

April (Year 1)	<p>Commence Vineyard Development Program</p> <p>Begin clearing and grubbing of existing vegetation. Complete land preparation for vineyard planting including; ripping, discing, rock removal and processing, recontouring and incorporation of soil amendments. Install water bars and rock energy dissipators.</p> <p>Install irrigation and trellis system</p>
Prior to October 1 <sup>st</sup>	Complete all drainage system improvements including cross slope diversions, drainage pipes and outfalls.
Prior to October 15 <sup>th</sup>	<p>Complete all earth disturbing activities.</p> <p>Winterize Site</p> <ul style="list-style-type: none"> <li>Seed vineyard with temporary cover crop seed mix</li> <li>Seed vineyard avenues with permanent cover crop seed mix</li> <li>Place fertilizer and straw mulch</li> <li>Install sediment barriers</li> <li>Install water bars</li> <li>Pre-irrigate cover crop to establish cover prior to rainy season.</li> </ul> <p>Establish reserve of erosion control measures to be maintained onsite throughout the rainy season to facilitate rapid deployment. Materials shall include silt fence, straw wattle, straw, erosion control seed mix, erosion control blanket and plastic sheeting</p>
October 15 to April (year 2 & 3)	Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion damaged areas or areas with less than the specified cover percentage and repair or replace erosion control devices as necessary
April (year 2)	Plant rootstock
Spring (year 2 & 3)	<p>Y2: Cultivate temporary cover crop within vineyard block footprint area and perform fine site grading to repair any storm damaged areas. No tilling of vineyard avenues is to be performed.</p> <p>Y3: Cultivate temporary cover crop and perform fine site grading to repair any storm damaged areas</p>
Prior to October 15 <sup>th</sup> (year 2 & 3)	<p>Complete all earth disturbing activities</p> <p>Winterize Site</p> <ul style="list-style-type: none"> <li>Seed vineyard with temporary cover crop seed mix</li> <li>Seed vineyard avenues with permanent cover crop seed mix</li> <li>Place fertilizer and straw mulch</li> <li>Install sediment barriers</li> <li>Install water bars</li> </ul>

<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**

Spring	Mow permanent cover crop in vineyard and vineyard avenues and perform fine site grading to repair any storm damaged areas.
Prior to October 15 <sup>th</sup>	<p>Winterize Site</p> <p>Repair any damage to vineyard and vineyard avenues that has occurred during the farming season. Place seed and straw on all vineyard avenues as needed to achieve the specified cover percentage. Install water bars.</p> <p>Place erosion control seed, fertilizer, straw mulch, erosion control blankets and sediment barriers as necessary to stabilize any erosion prone areas outside and adjacent to the vineyard areas</p>
October 15 – April 1	Inspect and maintain vegetative cover and erosion control devices at least once per week, prior to each anticipated rainfall event, at least once every 24 hours during extended rainfall events and following each rainfall event. Reseed and mulch any erosion damaged areas or areas with less than the specified percentage cover and repair or replace erosion control devices as necessary

Implementation of the proposed project would be in accordance with the 1260 Shady Brook Vineyard ECP prepared by Applied Engineering (October 2025 - **Exhibit A**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES).

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

The proposed project would occur on one parcel totaling approximately 41.8 acres located at 1260 Shady Brook Lane in Napa, California (**Figures 1-3**). The parcel consists of roughly 0.8 acres of developed area, including a single-family residence, 2<sup>nd</sup> dwelling, pool, landscaping, utility shed, tennis court and access road. The remaining areas within the parcel consist of tree canopy (23.5 acres), shrub (14 acres), grass cover (2.6 acres), meadow (0.8 acres), and wetlands (0.1 acres). Surrounding land uses include residences, open land, undeveloped parcels, and agriculture (e.g., vineyards, livestock grazing). The nearest known schools (Stone Bridge School and Silverado Middle) are approximately 1.7-miles southwest, 2.5-miles southwest, respectively. The closest offsite residence is located approximately 960 feet south where a fire burned property is located where there was once a residence, and 1,300 feet to the west of the proposed project and approximately 7 parcels located within 500 feet of the development with residences. The closest residential area (Napa) is approximately 2.27 miles west of the project.

The project site is located approximately 2.07 miles east of the City of Napa. The project site is located within the Tulucay Creek watershed. There is one unnamed blue lined stream on the eastern side of parcel flowing north to south; there is also a wetland seep and a wetland north of the proposed development. Both the stream and wetland are outside of the proposed vineyard development area and include setbacks consistent with Napa County Conservation Regulations Sections (NCCRS) 18.108.024 and 18.108.026. General topography of the area consists of hills on the eastern side of Napa Valley. The project site contains slopes within the development area that are moderately to steeply sloped on generally north-facing slopes, with elevations that range from approximately 815 to 915 feet above mean sea level (msl).

No potentially active faults have been mapped on the project site; the nearest active faults, Mount George is located over 1.95 miles east of the project site. No landslides or areas of instability have been identified within the project site. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA, 1978) as Hambright Rock-Outcrop Complex 30 to 75% slopes (Applied Engineering 2025 - **Exhibit A**).

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

The project would also require various ministerial approvals by the County, including but not limited to building permits, grading permits, waste disposal permits, and an encroachment permit, in addition to meeting CalFire standards. Permits may also be required by the Department of Alcoholic Beverage Control and Bureau of Alcohol, Tobacco, & Firearms.

**Responsible (R) and Trustee (T) Agencies**

California Department of Fish and Wildlife (CDFW) (T)

**Other Agencies Contacted**

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

11. **California Native American Tribal Consultation:** Have tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun? Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on November 3, 2025. On November 7, 2025, Middletown Rancheria responded deferring to Yocha Dehe Wintun Nation for any comments or concerns they may have. On December 3, 2025, Yocha Dehe Wintun Nation requested consultation, indicating that the project site is within their aboriginal territories of the Yocha Dehe Wintun Nation, and that the Tribe has a cultural interest and authority in the proposed project area. The letter requested formal consultation with the lead agency. On September 4, 2025, the County responded to the request for consultation with no response to date from Yocha Dehe Wintun Nation. A representative of Yocha Dehe Wintun Nation requested onsite consultation for January 29, 2026. The formal consultation is detailed in Section XVII (Tribal Cultural Resources).

The Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria did not request consultation within the 30-day notification period, and because no response to the consultation invitation was received, the consultation time period elapsed. *This is discussed in detail in Section XVIII (Tribal Cultural Resources).*

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

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 ECPA #P25-00011-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559.

- Applied Engineering, Inc., October 30, 2024, Erosion Control Plan and Plan Narrative #P25-00011, 1260 Shady Brook Vineyard (**Exhibit A**)
- Jane Valerius Environmental Consulting, June 17, 2024, Habitat Assessment (**Exhibit B**)
- Archaeological Resource Services, January 17, 2024, Archaeological Resource Management Report (**Confidential**)
- David Steiner (CPESC, CPSWQ), November 13, 2023, Soil Loss Analysis, 1260 Shady Brook ECP (**Exhibit C**).
- David Steiner (CPESC, CPSWQ), November 13, 2023, Hydrologic Analysis, 1260 Shady Brook ECP (**Exhibit D**).
- EBA Engineering, Water Availability Analysis, May 7, 2024 (**Exhibit E**).
- Application Submittal Materials and Correspondence (**Exhibit F**)
- Project Revision Statement (**Exhibit G**)
- Site inspections conducted by Napa County Planning Division staff on May 5, 2025
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

**ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:**

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

On the basis of this initial evaluation:

- 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.
- 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.

*Kelli Cahill*

Signature

May 26, 2026

Date

Name: Kelli Cahill, Planner III

Napa County  
Planning, Building and Environmental Services Department

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

Discussion:

- a-b. The project site is approximately 3.27 miles from the Silverado Trail, the closest County viewshed road. 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) and the closest minor ridgeline is located 0.3 mile to the northeast. There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. 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.
- 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, livestock grazing, 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. The proposed project does not include nighttime activities that would require lighting. Therefore, the proposed project would result in no impact.

Mitigation Measures: None are required.

II. <b>AGRICULTURE AND FOREST RESOURCES.</b> <sup>1</sup> Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>1</sup> "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that

Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <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 Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)? | <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 in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?   | <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?   | <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 development area as Important Farmland. The project would benefit agriculture within these areas. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, resulting in no impact.
- b. The project site has a General Plan designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 1.3 gross acres (1.0 net acres) is consistent with project site's land use and zoning designations. The subject property does not have a Williamson Act contract associated with it. Therefore, the proposed project would not conflict with its land use designation or a Williamson Act contract resulting in no impact.
- c-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." The project site does not contain forest land or coniferous forest (Napa County GIS; WRA October 2018). The project site is 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.

Mitigation Measures: None are required.

III.	AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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:

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

The Thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the Thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on Thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the Thresholds are not mandatory, and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or Bay Area Air District to any specific course of regulatory action.

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

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

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

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

- a-b. The project site is generally located along the western side of Napa Valley, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, vehicular haul and worker trips, and the burning of any project area vegetation<sup>2</sup>. 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

<sup>2</sup> See Section VIII (Greenhouse Gas Emissions) for the greenhouse gas (GHG) emissions disclosure and impact assessment.

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.

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter less than 10 microns in diameter (PM<sub>10</sub>), fine particulate matter less than 2.5 microns (PM<sub>2.5</sub>), and lead. Air basins (or portions thereof) are categorized as “attainment,” “nonattainment” or “unclassified” for each criteria air pollutant based on whether ambient air quality standards have been achieved. The SFBAAB is currently designated as a nonattainment area designated for the federal 8-hour ozone standard, state 1-hour and 8-hour ozone standards, state annual and 24-hour PM<sub>10</sub> standards, federal 24-hour PM<sub>2.5</sub> standard and the state annual PM<sub>2.5</sub> standard. Therefore, the criteria air pollutants of concern in the SFBAAB are reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>) which are referred to as ozone precursors, as well as PM<sub>10</sub> and PM<sub>2.5</sub>.

Air quality attainment plans are required to be prepared for nonattainment areas both under federal and state law. The most recently adopted air quality plan to address nonattainment issues in the SFBAAB is the 2017 Bay Area Clean Air Plan (Clean Air Plan).<sup>3</sup> The Clean Air Plan provides a regional strategy to protect public health and the climate by progressing toward attaining all state and federal air quality standards, eliminating health risk disparities from exposure to air pollution among Bay Area communities, transitioning the region to a post-carbon economy needed to achieve greenhouse gas (GHG) reduction targets for 2030 and 2050, and providing a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to SFBAAB residents, such as particulate matter, ozone, and toxic air contaminants (TACs); reduce emissions of methane and other “super-GHGs”<sup>4</sup> that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.<sup>5</sup>

The BAAQMD’s current guidance requires consideration of the following questions in determining whether a project is consistent with an air quality plan. If all three questions are answered in the affirmative with substantial evidence provided in support of the answer, the project would be considered to be consistent with the Clean Air Plan.

- 1) For each applicable air quality plan, does the project support the primary goals?
- 2) For each applicable air quality plan, does the project include all applicable control measures?
- 3) For each applicable air quality plan, does the project not disrupt or hinder implementation of any control measures?

The BAAQMD-recommended guidance for determining if a project supports the goals of the current Clean Air Plan is to compare project-estimated emissions with BAAQMD thresholds of significance. If a project’s emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the Clean Air Plan. As indicated in the following discussion with regard to air quality impact Question b, the proposed project would result in less than significant impacts from construction and operation as the project would not generate criteria air pollutant emissions related to either construction or operation that would exceed the BAAQMD mass emissions thresholds of significance. Thus, the proposed project would not conflict with the goals of the Clean Air Plan.

The Clean Air Plan contains 85 control measures aimed at reducing air pollution in the SFBAAB, and projects that incorporate all feasible air quality plan control measures are considered consistent with the Clean Air Plan. Of these, the only control measure applicable to the proposed project is Transportation Control Measure TR22 that addresses emissions from construction equipment. Control measure TR22 uses various strategies to reduce emissions from construction and farming equipment (e.g., incentives for equipment upgrades and/ or use of renewable electricity and fuels). Since 2009, the BAAQMD has provided more than \$38 million to replace and/or upgrade hundreds of pieces of older, often uncontrolled equipment used in construction, cargo-handling and agricultural operations with newer units that have engines certified to the cleanest available standards. The proposed project would benefit from this ongoing program and would not conflict with its implementation. Therefore, the proposed project would not be inconsistent with nor hinder implementation of any of the Clean Air Plan control measures.

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

The 2022 BAAQMD Guidelines provide thresholds of significance for air quality impacts from both construction and operation. According

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<sup>3</sup> BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_proposed-final-cap-vol-1-pdf.pdf?la=en).

<sup>4</sup> “Super-GHGs” are climate pollutants that have a powerful ability to contribute to global warming, such as methane, black carbon, and fluorinated gases.

<sup>5</sup> BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_proposed-final-cap-vol-1-pdf.pdf?la=en).

to BAAQMD, a project would have a significant impact on air quality if emissions from construction or operation would exceed the thresholds of significance shown in **Table 3**.

**Table 3 – BAAQMD Thresholds of Significance for Construction and Operation**

Pollutant	Construction	Operation	
	Average Daily (pounds per day)	Average Daily (pounds per day)	Annual (tons per year)
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub> <sup>a</sup>	82	82	15
PM <sub>2.5</sub> <sup>a</sup>	54	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices (BMPs)	Not applicable	

<sup>a</sup> Includes PM emissions from exhaust only.

Sources: BAAQMD CEQA Guidelines April 2023.

For construction-related emissions of fugitive dust, the BAAQMD recommends that lead agencies take a qualitative approach to determine impact significance; the CEQA Air Quality Guidelines state that a project would be considered to have a less than significant impact with regard to fugitive dust emissions of PM<sub>10</sub> and PM<sub>2.5</sub> if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air pollutant emissions from the proposed project, a review of the analysis of emissions associated with vineyard development/construction and operations performed for the CEQA analysis of three recent vineyard projects in Napa County was completed: Stagecoach North Vineyards<sup>6</sup> for an approximately 91-acre vineyard development, KJS and Sorrento Vineyard<sup>7</sup> for an approximately 98-acre vineyard development, and Le Colline Vineyards<sup>8</sup> for an approximately 28-acre vineyard development<sup>9</sup>.

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

**Table 4** shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in construction 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 construction trips, construction equipment and duration of use/operation. Variations in operational emissions between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as operational year and number of vehicle trips generated, level of off-road equipment use in operation, and the use of electric equipment and vehicles.

The proposed project would involve clearing existing vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 1.3 gross acres of vineyard. Vineyard construction is anticipated to generate about 20 trips for anticipated work crews of five to ten employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would be limited to tracklaying and rubber-tired vehicles and could include bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Daily construction emissions associated with the proposed project's 1.3 gross acre vineyard development (approximately 1.0 net-planted acres) were estimated using the average pounds per day estimated of the three vineyard projects described above and is shown in **Table 4**. As shown in **Table 4** short-term construction emissions associated with the proposed project would be well below the BAAQMD's daily construction thresholds. Therefore, the project would not negatively affect air quality and is anticipated to result in a less than significant impact during construction.

Proposed vineyard operations are anticipated to generate at most 80 truck trips annually for anticipated work crews of up to 5-10 field personnel. Typical operations include, but are not limited to, irrigation and trellis system inspection and repair, pruning, canopy management, harvest, cover crop inspection and management, erosion control measure monitoring and maintenance, and vine/vineyard

<sup>6</sup> #P18-00446-ECPA, November 2022, SCH #2019100250

<sup>7</sup> #P17-0432-ECPA, March 2023, SCH #2018092042

<sup>8</sup> #P14-00410-ECPA, December 2022, SCH #2016042030

<sup>9</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.

maintenance. During peak harvest season, operations are anticipated to generate up to ten round trips per day, including grape hauling trucks. Vineyard operations would be similar to the other three vineyard projects discussed above and the project proposes to develop a vineyard in a smaller area than the projects shown in **Table 4**. Therefore, operational emissions associated with the proposed project would be less than those shown in **Table 4** and well below both the daily and annual thresholds.

**Table 4 – Emissions from Vineyard Development and Operation**

Emissions and Thresholds	Construction Emissions			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Stagecoach North vineyard <sup>1</sup> (pounds per acre per day)	0.08	0.75 to 0.78	0.03	0.03
KJS and Sorrento vineyard <sup>2</sup> (pounds per acre per day)	0.5	0.42	0.02	0.02
Le Colline vineyard <sup>3</sup> (pounds per acre per day)	0.24	2.33	0.10	0.09
Average (pounds per acre per day)	0.12	1.18	0.05	0.05
Project Construction Emissions based on Average (pounds per day)	0.49	4.8	0.28	0.28
Construction threshold	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions <sup>4, 5</sup>			
Stagecoach North 91-acre vineyard operation <sup>1</sup> (pounds per acre per day)	0.01	0.08 to 0.14	0.01	<0.01
KJS and Sorrento 98-acre vineyard operation <sup>2</sup> (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation <sup>3</sup> (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Average (pounds per acre per day)	<0.01	0.03	<0.01	<0.01
Project Operational Emissions based on Average (pounds per day)	<0.01	<0.03	<0.01	<0.01
Operational threshold (pounds per day)	54	54	82	54
Significant?	No	No	No	No
	Operational Emissions <sup>4</sup> (tons per year)			
Stagecoach North 91-acre vineyard operation <sup>1</sup> (tons per year)	<0.01	0.01 to 0.03	<0.01	<0.01
KJS and Sorrento 98-acre vineyard operation <sup>2</sup> (tons per year)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation <sup>3</sup> (tons per year)	<0.01	0.01	<0.01	<0.01
Average (tons per year)	<0.01	<0.01	<0.01	<0.01
Project Operational Emissions based on Average (tons per year)	<0.01	<0.01	<0.01	<0.01
Operational threshold (tons per year)	10	10	15	10
Significant?	No	No	No	No

1 As identified in Stagecoach North EIR

2 As identified in KJS and Sorrento EIR

3 As identified in Le Colline Vineyard EIR

4 Includes dust and exhaust emissions

5 Calculation based on 365 days of operation. Project emissions are anticipated to be less than identified as vineyard operations are seasonal in nature.

Sources: Stagecoach North Vineyard EIR 2022; KJS and Sorrento Vineyard EIR 2023; Le Colline Vineyard Initial EIR 2023; BAAQMD CEQA Guidelines April 2023.

Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 5-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing

operation of the proposed project.

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage should be provided for construction workers at all access points.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 4**, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in **Table 4** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Implementation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; less than significant impacts are anticipated.

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

Land uses in the vicinity of project parcel include rural residential, agriculture (primarily vineyard), and undeveloped lands. The nearest known schools (Stone Bridge School and Silverado Middle) are approximately 1.7-miles southwest, 2.5-miles southwest, respectively. The closest offsite residence is located approximately 960 feet south where a fire burned property is located where there was once a residence, and 1,300 feet to the west of the proposed project and approximately 7 parcels located within 500 feet of the development with residences. The closest residential area (Napa) is approximately 2.27 miles west of the project.

During installation of the ECPA, 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 at least 1.7 miles from the closest school and 2.27 miles from the nearest residential neighborhood, with the nearest rural residence (not including the fire burned property) being over 1,300 feet to the west, 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.

Mitigation Measures: None are required.

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

- Jane Valerius Environmental Consulting, June 17, 2024, Habitat Assessment, 1260 Shady Brook Vineyard, 1260 Shady Brook Lane, Napa County, California (**Exhibit B**).

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

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project site was compiled based on data in the CNDDB (CDFW, 2019a), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2019a), and the USFWS List of Federal Endangered and Threatened Species (USFWS, 2019b) that may be affected by projects in the Fairfield North, Cuttings Wharf, Cordelia, Fairfield South, Mount Vaca, Yountville, Capell Valley, Napa, and Mt. George quadrangles.

Valerius conducted an assessment of biological resources on the project site on March 15, April 27, May 16, July 13, 2023. The surveys were completed to determine: the presence of sensitive biological communities; the potential for biological communities on site to support special-status plant or wildlife species; and the presence of sensitive natural resources protected by local, state, or federal laws and regulations. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties.

The parcel consists of the following vegetation communities (land cover types):

**Table 5: Total Acreages of Vegetation Types Present on Parcel**

Vegetation Type	Total Acreage within Parcel
Coast Live Oak Woodland	19.3
Coast Live Oak Riparian Woodland*	4.2
Chamise Chaparral	14.0
Non-Native Annual Grassland	2.4
Valley Needlegrass Grassland	0.20
Meadow	0.80
Wetlands (including seeps)	0.10
Developed/Landscaped areas	0.80
<b>Total</b>	<b>41.8</b>

\* The vegetation cover for the unnamed blue line stream is included in the overall acreage for the coast live oak riparian vegetation type.

Special-Status Plants: A record search identified potential for 37 plant species to occur proximity to the property (5-mile radius); however, during surveys conducted in March to July, two special status plant species were observed, including Napa bluecurls (*Trichosema ruygtii*) and Green monardella (*Monardella viridis*). The population of Napa bluecurls is associated with the mapped wetland in the central portion of the property. There is an additional Napa bluecurls population north of the central one and the Green monardella population is located south of proposed Block 1.

The Napa bluecurls is an annual herbaceous species in the Mint Family or Lamiaceae. It occurs in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland and vernal pools at elevations from 30 to 680 meters. It flowers from June to October and is very recognizable even without flowers by its highly aromatic odor. It is associated with wetland areas and also occurs in sunny, open areas. This species was mapped in two locations, one of which is associated with a wetland area (**Exhibit B- Fig. 9**). There were approximately 100 to 200 plants for both areas combined. Plants associated with the Napa bluecurls include small quaking grass, ryegrass, rabbitsfoot grass, slender rush, lippia, interwoven navarretia, and annual hair grass. A search of the CNDDDB shows records for Napa bluecurls within a 3-mile radius of the property.

The Green monardella is a perennial herbaceous plants in the Mint Family or Lamiaceae. It usually occurs on rocky soils in broadleaved upland forest, chaparral and cismontane woodland in elevations ranging from 100 to 1010 meters. This species was mapped in one location within a coast live oak woodland community type (**Exhibit B**). It occurs on a slope just above the access road. According to the CNDDDB record search, there is the potential for eleven plants to be present within the project area or immediate vicinity. During the protocol level surveys, the biologist determined that habitat was present for ten plants; however, there were no species observed (Henderson's bent grass (*Argrostis hendersonii*), Modest rockcress (*Arabis modesta*), Narrow-anthered brodiaea (*Brodiaea leptandra*), Streamside daisy (*Erigeron bioletti*), Holly-leaved ceanothus (*Ceanothus purpureus*), St. Helena fawn lily (*Erythronium helenae*), Bristly leptosiphon (*Leptosiphon aureus*), Jepson's leptosiphon (*Leptosiphon jepsonii*), Oval-leaved viburnum (*Viburnum ellipticum*)). Habitat for two species was present, but lacked presence of serpentine soils (Franciscan onion (*Allium peninsulare* var. *franciscanum*), Tracy's clarkia (*Clarkia gracilis* ssp. *Tracyi*)). Brewer's calandrinia (*Calandrinia breweri*) was observed outside the property boundary within a rock outcrop meadow type, which is not present within the study area. Although absent, the biologist stated that the observance would be reported to the CNDDDB. Other plants observed in the area included coast live oak, toyon, manzanita, and several non-native landscape plants including euphorbia, wild oats, European hair grass, rigput brome and rose clover.

The existing access road is located above Block 1 is not proposed to be used for vineyard development and only for personal use as it is currently used by the property owner. **Mitigation Measure BIO-1** provides protection to the Napa bluecurls and Green monardella through setbacks, flagging and temporary fencing.

**MITIGATION MEASURE BIO-1 – Special Status Plant Avoidance**

The following avoidance and protection measures will be implemented during construction:

- Use GPS points provided by the professional biologist during the habitat assessment and flag the Napa bluecurl and Green monardella populations 20 feet from the vineyard planting (10 feet from the clearing limits and an additional 10 feet from the vineyard road) prior to ground disturbance.
- Install temporary orange construction fencing or similar barrier placed around the Napa bluecurls and Green monardella populations to protect and keep all vehicles or equipment from disturbance during ground disturbing activities and vineyard installation. Temporary fencing shall be removed upon completion of development.

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-3.14 Additionally, pursuant to Napa County General Plan Policy CON-13,15 the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

The project as proposed would not remove special-status plants and/or populations, which is consistent with the following Napa County General Plan Conservation Element goals, policies, and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status species habitat can be avoided while allowing for the development of up to approximately 1.3 gross acres of agriculture in the project site; Policy CON-17 because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affect sensitive, rare, threatened, or endangered plants.

Specific to oak woodland, Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habitat, slope stabilization, soil protection and species diversity. Policy CON 24c, specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible replacement of oak woodland at a 2:1 ratio is required. The property where development is proposed includes 19.1 acres of coast live oak woodland (of which 1% is proposed for conversion, avoiding 99%), and 4.2 acres of coastal live oak riparian woodland (0% of the existing habitat type, avoiding 100%). Canopy impacts and mitigation are discussed in Question e below.

Special-Status Animals: Based upon a review of the biological resource databases, 25 special-status animal species have been documented to occur within proximity of the project site (5-mile radius). Fourteen of these species have a moderate to high potential to occur in the project site, including: Obscure Bumble Bee (*Bombus caliginus*), Foothill Yellow-legged frog (*Rana boylei*) (FYLF), California Red-legged frog (*Rana draytonii*) (CRLF), nesting passerines including, California Quail (*Callipepla californica*), Oak titmouse (*Baeolophus inornatus*), wren-tit (*Chamaea fasciata*), western bluebird (*Sialia mexicana*), and woodpeckers, nesting raptors including red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), Northern Spotted Owl (*Strix occidentalis caurina*), roosting bats including pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*) and hoary bat (*Lasiurus cinereus*). The biological surveys identified habitat for the following animal species within the area of the proposed project. During the survey no special-status animal species were observed. These species are discussed in further detail below:

Obscure bumble bee. This species occurs along the Pacific Coast, from southern California to southern British Columbia, with scattered records from the east side of California's Central Valley. Analyses suggest very high population decline range-wide, including range size reductions, persistence reductions, and relative abundance declines. *Bombus caliginus* inhabits open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. Males patrol circuits in search of mates. This species is classified as a medium longtongued species, whose food plants include *Ceanothus*, *Cirsium*, *Clarkia*, *Keckiella*, *Lathyrus*, *Lotus*, *Lupinus*, *Rhododendron*, *Rubus*, *Trifolium*, and *Vaccinium* (Williams et al. 2014). Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. There is suitable food plants within the proposed vineyard development area associated with the non-native grassland.

Foothill yellow-legged. FHYL frogs are relatively common along the shaded banks of perennial headwater streams, and they are heavily dependent on the presence of perennial water and are seldom far from pools where they can seek shelter from predation. These frogs require either perennial or long-duration stream flows as successful breeding sites due to the lengthy period required for metamorphosis of larvae. Breeding begins between mid-March and May and lasts about two weeks. The larvae require three to four months to mature, making most ephemeral streams unsuitable as breeding sites. The small drainages on the site do not provide suitable habitat based on their size, type of creek bed and canopy cover.

California red-legged frogs. CRLF are typically pond frogs or frogs of slow-moving streams with dense bank vegetation and three or more feet of depth. The frogs may be found outside of these habitats during wet weather, but nearby ponded water is necessary. This frog is threatened by vineyard and other development, and predators. The CNDDDB records an occurrence from 1979 in a roadside channel along Howell Mountain Road. There is a lack of suitable breeding habitat on the site and the known occurrences of the species more than 5 miles from the project negates the potential for the species to be impacted by the proposed project.

Nesting passerines. Passerines including California quail (*Callipepla californica*), oak titmouse (*Baeolophus inornatus*), wrenit (*Chamaea fasciata*), western bluebird (*Sialia mexicana*), and woodpeckers have the potential to nest on or near the proposed ECP. As early as February, passerines begin courtship and once paired, they begin nest building, often around the beginning of March. Nest structures vary in shapes, sizes and composition and can include stick nests, mud nests, matted reeds and cavity nests. All structures may be used for nesting, from grasslands to shrubs to trees. Depending on environmental conditions, young birds may fledge from the nest as early as May and, if the prey base is large, the adults may lay a second clutch of eggs. Several passerine (perching birds) species may nest on the site in the various habitats, including, but not limited to, white-breasted nuthatch, oak titmouse (BCC) and western bluebirds in cavities in the trees, as well as wrenit (BCC) in the chamise chaparral and mixed chaparral. At this time there is no mitigation for loss of habitat for nesting birds, only prevention of take of individuals. Approximately seven (7) trees are proposed for removal at this time in Block 1, which were observed to have cavities and crevices. There are no trees in Block 2 proposed for removal. The non-native grasslands do not provide suitable nesting habitat for ground nesting birds due to the site being actively managed and mowed (**Exhibit B**).

Raptors. Raptors nest in a variety of substrates including, cavities, ledges and sticknests. For example, Cooper's hawks are small bird hunters, hunting on the edges of forests in broken forest and grassland habitats where passerines forage for seeds and insects. Nests occur in heavily forested areas near a water source. Research sites on nesting Cooper's hawks rarely show the nests more than a quarter of a mile away from water, whether it is a cattle tank, stream or seep (Snyder and Snyder 1975). Trees typically used by Cooper's hawks include coast live oaks, cottonwoods, and black oaks (Call 1978), as well as second growth conifer stands or deciduous riparian areas. Most raptors build stick nests, except for American kestrels that nest in cavities. In general, the breeding season for raptors occurs in late March through June, depending on the climate, with young fledging by early August. A female sharp-shinned hawk was observed on site. Foraging habitat for raptors, such as red-shouldered hawk, among others, occurs throughout the parcel. No evidence of raptor nesting was observed in the five trees proposed for removal. At this time there is no mitigation for loss of habitat for nesting birds, only prevention of take of individuals.

Northern spotted owls (NSO). NSO are typical in or near dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats. Summer roosts in California have been noted on northwest or northeast inclinations, on slopes over 35%, and in stands with tall (65 foot) conifer canopy (Laymon, et al. 1985), although spotted owls may be found in younger forest stands that have the structural characteristics of older forests or retained structural elements from the previous forest (USFWS 2011). In redwood forests and mixed conifer-hardwood forests along the coast of northwestern California, considerable numbers of spotted owls also occur in younger forest stands, particularly in areas where hardwoods provide a multilayered structure at an early age (USFWS 2011). Prey species include flying squirrels, woodrats, mice and voles as well as small birds and bats. It is thought that the NSO relieves heat stress through bathing and therefore requires a permanent water source (Zeiner, et al. 1990). Spotted owls nest in platforms built by other animals, requiring a minimum area ranging from 81 to 121 hectares for a nest stand (Laymon, et al. 1985). An understory vegetation layer is important for young fledglings as they leave the nest before they can fly and perch on small trees and shrubs. The majority of foraging occurs within 3.2 km radius of the nest site. There are no mapped occurrences of NSO within a 5-miles radius, nor is there suitable nesting habitat within the project site or vicinity.

Roosting bat. Roosting bat species are not known to be active year round in this region of California. During the maternity season, non-volant young of colonial bats remain in the roost until late summer (end of August), after which they may disperse from the natal roost or remain into or throughout the winter. Obligate tree roosting bat species, and to some extent, colonial bats, may switch tree roosts frequently, particularly after young are volant, but are sometimes faithful for longer periods (weeks). During winter months, bats typically enter torpor, rousing only occasionally to drink water or opportunistically feed on insects. The onset of torpor is dependent upon environmental conditions, primarily temperature and rainfall. To prevent direct mortality of either non-volant young or torpid bats during winter months, roosts must not be disturbed or destroyed until bats are seasonally active, and only after they have been provided a means of escape from the roost.

California bats include colonial and solitary roosting species. Colonial bats are those that roost in groups of dozens to many thousands. Pallid bats, an SSC species, are eclectic in their roosting habitat selection, and to some extent distribution, and can be found in crevices and small cavities in rock outcrops, tree hollows, mines, caves, and a wide variety of man-made structures such as buildings, bridges and culverts, generally in lower to mid-elevation sites. This species forms maternity colonies, composed of dozens to sometimes hundreds of females and their young, and smaller bachelor colonies composed of males and not-yet reproductive females. Non-SSC species, include Brazilian free-tailed bats (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), and other *Myotis* species. These species may form significant local breeding populations in roosts of sufficient size, which usually occur in buildings, bridges or culverts, but occasionally in large tree hollows.

Obligate tree-roosting bats include western red bat (*Lasiurus blossevillii*), another SSC species that could occur in the study area, as well as a non-SSC species, the hoary bat (*Lasiurus cinereus*). *L. blossevillii* roosts in tree foliage, typically in large-leaved trees such as cottonwood (*Populus fremontii*), oaks (*Quercus* sp.), ash (*Fraxinus* sp.) and elder (*Acer* sp.) (Anderson and Geluso 2018), but also in orchards where suitable canopy density occurs and in non-native trees, such as eucalyptus trees (Pierson et al. 2006). Suitable potential tree canopy habitat is present on the Copeland Creek bank restoration project site for both species. *L. blossevillii* females generally roost singly, with 2-6 pups, during maternity season, but sometimes they will roost in clusters of other females and pups. Obligate tree-roosting bat species, and to some extent, colonial bats, may switch tree roosts more frequently than larger, more stable roosts such as building, bridges, caves and mines, particularly after young are volant, but there is evidence that this species is often faithful to selected trees (Anderson and Geluso 2018, Wyatt, pers. comm. 2007).

Several oaks contained suitable potential cavity, crevice and/or exfoliating bark roost features which are suitable for SSC bat species such as pallid bats, as well as non-SSC species. Approximately five trees are proposed for removal at this time and contain cavities and crevices. However, not all trees within each habitat were surveyed for suitable potential habitat because habitats change over time and a survey at this time would be a snapshot of what is present. At this time there is no mitigation for loss of habitat for roosting bats, only prevention of take of individuals. In addition to cavity, crevice, and exfoliating bark roost features that can support colonial bat species, dense canopy that provides suitable potential roost habitat for *L. blossevillii* and *L. cinereus* within the western portion of the project site.

The project has potential to impact special-status wildlife species through the removal of non-native grassland and seven (7) oak trees during construction unless mitigation measures are included. The species that could potentially be impacted by the project include the obscure bumble bee (**Mitigation Measure BIO-2** proposed to ensure less than significant impacts), passerine birds (**Mitigation Measure BIO-3** proposed to ensure less than significant impacts) and bats (**Mitigation Measures BIO-4** proposed to ensure less than significant impacts). Further, in addition to the special-status bird species discussed above, other migratory birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code may also nest or forage onsite, as the project site contains a variety of nesting habitat, and **Mitigation Measure BIO-3** should ensure impacts are less than significant. Temporary and intermittent increases in noise levels during construction may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. These are considered potentially significant impacts, and details on the Mitigations Measures BIO 2-4 are described in detail below:

**MITIGATION MEASURE BIO-2 – Crotch’s Bumble Bee:** Project shall conduct a pre-construction survey consistent with Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). The survey plan should be submitted to CDFW for review. Surveys shall be conducted by a qualified entomologist familiar with the behavior and life history of Crotch’s bumble bee.

1. Surveys shall be conducted during the colony active period (i.e., April through August) and when floral resources are in peak bloom. Bumble bees move nests sites each year, therefore, surveys shall be conducted each year that Project work activities occur.
2. If Crotch’s bumble bee are detected during pre-construction surveys, a Crotch’s bumble bee avoidance plan should be developed and provided to CDFW for review prior to work activities involving ground disturbance or vegetation removal. The Project shall incorporate CDFW’s comments into the avoidance plan. If take of Crotch’s bumble bee cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence.

**MITIGATION MEASURE BIO-3 - Nesting bird and Raptor Avoidance:** If Project construction activities, including but not limited to vegetation clearing, occur during the nesting season for birds protected under the California Fish and Game Code and Migratory Bird Treaty Act (approximately February 15-August 31) the Project shall retain a qualified biologist to perform preconstruction surveys for nesting birds and raptors, including but not limited to nesting raptors, on the Project site and in the immediate vicinity including a minimum 500 foot radius around the Project site. The survey shall be conducted no more than seven (7) days prior to the initiation of construction activities, including but not limited to vegetation clearing. If there is a lapse of seven (7) days or more in construction activities, another nesting bird and raptors survey shall be conducted. In the event that nesting birds and/or raptors are found on the Project site or within 500 feet of the Project site, the Project shall:

- a. Locate and map the location of the nest site and immediately notify CDFW if nesting special-status birds or raptors, or evidence of their presence is found;
- b. Establish a clearly marked no-disturbance buffer around the nest site. Buffer distances for bird nests and raptors shall be site specific and an appropriate distance, as determined by a qualified biologist, unless otherwise approved in writing by CDFW. The buffer distances shall be specified to protect the bird’s normal behavior thereby preventing nesting failure or abandonment. The buffer distance recommendation shall be developed after field investigations that evaluate the bird(s) apparent distress in

the presence of people or equipment at various distances. Abnormal nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards project personnel, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority to order the cessation of all nearby project activities if the nesting birds exhibit abnormal behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established;

- c. Within five working days of the surveys prepare a survey report and submit it to CDFW; and Monitor any active nest daily and ensure that the no disturbance buffer is maintained, unless otherwise approved in writing by CDFW.

**MITIGATION MEASURE BIO-4 – Roosting Bats:** The owner/permittee shall implement the following measures to minimize impacts associated with the potential loss and disturbance of roosting bats consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

- a. **Roosting Bat Habitat Assessment and Surveys:** Prior to any tree removal, a qualified biologist shall conduct a habitat assessment for bats. A qualified bat biologist shall have: 1) at least two years of experience conducting bat surveys that resulted in detections for relevant species, such as pallid bat, with verified project names, dates, and references, and 2) experience with relevant equipment used to conduct bat surveys. The habitat assessment shall be conducted a minimum of 30 to 90 days prior to tree removal and shall include a visual inspection of potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark, suitable canopy for foliage roosting species). If suitable habitat trees are found, or bats are observed, mitigation measure BIO-4.b, below, shall be implemented.
- b. **Roosting Bat Tree Protections:** If the qualified biologist identifies potential bat habitat trees, then tree trimming and tree removal shall not proceed unless the following occurs: 1) a qualified biologist conducts night emergence surveys or completes visual examination of roost features that establishes absence of roosting bats, or 2) tree trimming and tree removal occurs only during seasonal periods of bat activity, from approximately March 1 through April 15 and September 1 through October 15, and tree removal occurs using the two-step removal process. Two-step tree removal shall be conducted over two consecutive days. The first day (in the afternoon), under the direct supervision and instruction by a qualified biologist with experience conducting two-step tree removal, limbs and branches shall be removed by a tree cutter using chainsaws only; limbs with cavities, crevices or deep bark fissures shall be avoided. The second day the entire tree shall be removed.

With implementation of the abovementioned Mitigation Measures impacts to Crotch's Bumble Bee, Nest Birds and Raptors, and Roosting Bats will be less than significant.

- b-c. There are approximately 0.1 acres of wetlands mapped on the property in various locations on the property (Exhibit B Biology Retention Exhibit) . A formal delineation was not conducted but these areas had a dominance of wetland plants and evident wetland hydrology so were mapped as wetlands. A seep wetland occurs along the dirt access road along the cut face of the road in the central portion of the property. This wetland had water seeping from March to May and was dominated by an obligate wetland plant called seep monkeyflower (*Erythranthe guttata*). Another wetland area was mapped within the nonnative grassland in the central portion of the property. This wetland area is likely a created wetland as it occurs in an area that had been excavated. This created an opportunity for water to pond. Wetland plants associated with this area include toad rush, spike rush (*Eleocharis macrostachya*), hyssop loosestrife, lippia (*Phyla nodiflora*), rabbitsfoot grass (*Polypogon monspeliensis*), hawbit, and annual hair grass (*Deschampsia danthonioides*). This area also includes a CNPS Rank 1B species, Napa bluecurls (*Trichostema ruygtii*), which is often associated with mesic to wet areas.

One unnamed blue-line drainage occurs on the property that qualifies as a waters of the U.S. and state which is located in the eastern portion of the property, on the north and west side of the entrance road and varies in width from 2 to 4 feet wide at the ordinary high water mark (OHWM). This is a perennial to intermittent drainage. It is a narrow, incised drainage with a rocky to gravelly bottom and steep slopes. In portions of the drainage there is a fringe of wetland vegetation along the toe of slope including a mapped cattail wetland described above in the Coast Live Oak Riparian Woodland section. Wetland plants observed within the stream channel include cattails, Santa Barbara sedge, water parsley, curly dock, mugwort, chain fern, Pacific rush, and common cow parsnip (*Heracleum maximum*). A 65- to 85-foot setback from top of bank of the unnamed blue-line stream consistent with NCC 18.108.025, and 50' setbacks are provided from all wetlands in a manner consistent with NCC 18.108.026, will be maintained as shown on the Vegetation Communities Exhibit located in Exhibit B – Bio Assessment and as called out in Exhibit A – ECP Plan and Narrative. Therefore, the proposed project would not result in a significant impact to riparian habitat, wetlands or other sensitive natural communities. Impacts would be less than significant.

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

and corridor dwellers in the landscape.

Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because they are temporary and because of the limited scale of the project. The project site is not within either a Natural Landscape Block or an Essential Connectivity Area. At a localized scale the project site provides connectivity between undeveloped lands to the north, south, and west, primarily in the form of oak-dominated woodland (north, west) and open grassland (south) capable of hosting a variety of wildlife species. Due to vineyards and low-density residential development to the east, potential corridor functions between lands to the east and the project site are much more limited. Additionally, portions of the project site contain wildlife exclusion fencing which limits movement within the site. However, most of the project site would remain undeveloped, including the majority of the site's coast live oak woodland, resulting in direct connectivity with similar habitats within the project site and undeveloped lands to the north, west, and south. The proposed development area maintains substantial oak woodland between the proposed vineyard blocks allowing for continued wildlife movement at the localized and regional scale. This would allow for continued wildlife movement. Given the relatively small size of the proposed development area (relative to the area of the greater corridor tract), the apparent lack of development impacts within the more central portion of this tract, and the retention of the oak woodland within the project site, the proposed project is not anticipated to result in any potentially significant impacts to wildlife movement or migration. (Habitat Assessment, June 17, 2024 – Exhibit B).

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

**Fencing – Conditions of Approval:**

The owner/permittee shall revise Erosion Control Plan #P25-00011-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 #P25-00011-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 wildlife exclusion fencing as specified in Erosion Control Plan #P25-00011- ECPA pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.

- e. The project site contains approximately 19.1 acres of coast live oak woodland (0.2 acres of which occurs in the proposed development area) and 4.2 acres of coast live oak riparian woodland which is not located within the proposed development area. The proposed development area contains seven (7) trees with DBH greater than 6 inches (~0.2 acres of vegetation canopy cover) that are proposed for removal. The project has a zoning designation of Agricultural Watershed (AW), and is subject to the vegetation retention requirements or vegetation removal mitigation required in Agricultural Watershed zoning designation. The project is subject to General Plan Conservation Element Policy CON-24 regarding oak woodland habitat.

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 2005). While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

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 specifically calls 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.

To comply with Napa County General Plan Conservation Element Policy CON-24 and preserve 0.40 acres of oak woodland for 0.20 acres impacted, **Mitigation Measure BIO-5** below would be implemented.

**MITIGATION MEASURE BIO-5 – Oak Woodland Preservation:** The owner/permittee, prior to approval, shall implement the following measure to preserve 0.40 acres of the project site’s remaining oak woodland:

- a. A Preservation Area, totaling a minimum of 0.40 acres of oak woodland shall be designated as such in a deed restriction or mitigation easement or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The owner/permittee shall record the deed restriction or mitigation easement prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of oak woodland within the project property. The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.

The land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development, and excessive off-road vehicle use that increases erosion), and should be otherwise restricted by the existing goals and policies of Napa County. The owner/permittee shall provide an endowment to the accredited land trust that is sufficient to ensure that the mitigation easement is monitored, enforced, and defended in perpetuity. The amount of the endowment shall be calculated using the Center for Natural Land Management’s Property Analysis Record software, or an equivalent methodology if preferred by the land trust and accepted by the Land Trust Alliance, which provides the systematic and objective determination of the amount of the endowment in light of the conservation values to be protected by the easement. The record showing how the amount of the endowment was calculated shall be provided to County Counsel as part of its review of the mitigation easement. Any county staff time spent assessing and monitoring said provision shall be charged to the permittee, at the rate in effect at the time assessment and monitoring occurs, pursuant to County Fee Policy Part 80.

- b. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the development area (typically within approximately 50-feet of the proposed development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. Owner/permittee may manage vegetation within the Protected Area under the direction of the California Department of Forestry and Fire Protection (“CalFire”) for fuel reduction purposes.
- d. Owner/permittee may manage oak woodland portions of the Protected Area consistent with the Voluntary Oak Woodlands Management Plan (October 26, 2010) (the “Plan”), including without limitation implementing sustainable best management practices for oak woodlands set forth in Appendix D of the Plan. Such activities may include fuel management and the cultivation of native vegetation and maintenance of native vegetation compatible with the Protected Area’s use as vegetation canopy cover and oak woodland habitat.
- e. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3 of the canopy) and vegetation to be retained adjacent to the proposed development area.
- f. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P25-00011-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval that includes, at a minimum, the locations where replacement trees would be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

- 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.

Mitigation Measures: Mitigation Measure BIO-1 through BIO-5

V.	CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c) Disturb any human remains, including those interred outside of dedicated 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 Public Resources Code 21080.3.1 (Assembly Bill 52 – Gatto).

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Archeological sensitive areas and Archeological sites layers: Archaeological Resource Services, June 17, 2024, Archeological Resource Investigation of 1.2 +/- acres.

Archaeological Resource Services conducted an archeological evaluation of the project site which included a review of information on file with the California Historical Resources Information System Northwest, Information Center to determine presence or absence of previously recorded historic or prehistoric cultural resources; a review of relevant historic references to determine the potential for historic era archaeological deposits or structure and a surface reconnaissance survey of all parts of approximately 1.2 acre development area within the 41.8 acre parcel, including the project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a/b. The Cultural resource reconnaissance identified no cultural resources within the project site.

Furthermore, project approval, if granted, would be subject to the standard conditions identified below to protect, cultural resources that may be discovered accidentally. As discussed in Section XVIII, Tribal Cultural Resources, the Yocha Dehe Wintun Nation determined that the incorporation of the following Cultural Resources Conditions of Approval would provide adequate protection for and avoidance of potential impacts on Tribal Cultural Resources. Therefore, with incorporation of the condition of approval, below the proposed project would result in less than significant impacts to historic or archaeological resources.

- c. The cultural resource reconnaissance did not locate any human remains in the proposed development area and does not anticipate discovery of human remains due to the proposed project. Therefore, impacts to human remain are anticipated to be less than significant. Furthermore, the following condition 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– Condition of Approval:** Discovery of cultural, historical or archaeological resources, or human remains during construction, grading, or other earth moving activities:

1. In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable solids, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching or other onsite excavation(s), earth work within 100-feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists (RPA) and a Middletown Rancheria Nation Tribal Cultural Monitor have had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.

2. If human remains are encountered the Napa County Coroner shall be informed to determine if an investigation of the cause of death is required and/or if the remains are of Native American origin. Pursuant to Public Resources Code Section 5097.98, if such remains are of Native American origin the nearest tribal relatives as determined by the State Native American Heritage Commission shall be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity.
3. All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

Mitigation Measures: None are required.

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

- a. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers' commutes to and from the project site would consume fuel. Project construction is anticipated to occur over six months. 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 2019 (U.S. Energy Information Administration 2020). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million vehicles 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.

Mitigation Measures: None are required.

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	<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 site, and the project site is not located on an active fault or within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. The nearest active faults include a historic displacement from the Mount George Fault which is located approximately 1.95 miles to the east. No landslides or areas of instability have been identified within the project site. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA, 1978) (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 site as having very low liquefaction potential (Napa County, 2009). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
  - iv. Landslides, landslide deposits, and areas of instability have not been identified within the project site (Napa County GIS landslide layer). Therefore, no impact would occur.
- b. The project site’s soils have been classified according to the Soil Survey of Napa County (USDA, 1978) as Hambright rock-outcrop complex, 30 to 75% slopes (Napa County GIS - SSURGO Soil).

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 variety of drainage systems, including sediment barriers erosion control blankets, water bars, energy dissipaters, straw mulch applied at a rate of 3 tons per acre, as well as a no-till cover crop with vegetative cover densities of at least 75%. Vineyard avenues would also include vegetative cover densities of at least 75%. 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 Dave Steiner, CPESC and CPSWQ, for Applied Engineering (**Exhibit C**), the proposed conversion of approximately 1.3 acres of ruderal grassland and tree canopy to vineyard and vineyard avenues is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 5**). Under existing conditions, the annual soil loss is anticipated to average 1.96 tons per year across the development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 0.96 tons per year, or a reduction of approximately 0.47 acres (49%) as compared to existing conditions.

**Table 6 – USLE Soil Loss Analysis**

Vineyard Block	Pre-project soil Loss (tons/year)	Post-project soil loss (tons/year)	Difference	Percent Change (approx.)
Block 1	0.74	0.41	-0.33	55.4%
Block 2	1.22	0.51	-0.71	41.8%
<b>Total</b>	<b>1.96</b>	<b>0.96</b>	<b>-0.47</b>	<b>49.0%</b>

Source: Dave Steiner, CPESC and CPSWQ, November 13, 2024

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

It is not expected that land preparation activities associated with the proposed vineyard, such as removal of rocks from the soil profile, would substantially affect the USLE modeling results. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and movement of soil particles. The primary goal of cultivating the soils within the development area during implementation is to prepare the site for planting, including fracturing and mixing layers of compressed soil and rock to facilitate root growth and improve permeability, rather than to remove all the rock within the development area soils. Soil cultivation may result in a greater number of smaller rocks at the soil surface. Smaller rocks that emerge through development would be left within the vineyard,

and only larger rocks that surface would be removed. Because the larger rocks that may be removed from the site are generally underneath the soil surface, the removal of larger rocks that emerge during development would not significantly alter the composition of soil. Therefore, the soil type classification utilized in the USLE calculations would remain unchanged (Oster, 2008).

For these reasons the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project site, resulting in 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. Therefore, less than significant impacts would result from project implementation, if approved.

- c. As discussed above, the project site is not located in an area prone to landslides, ground failure or liquefaction. The proposed project identifies the soil types in the project site and addresses any potential soil instability. Therefore, impacts from offsite landslides, lateral spreading, subsidence, liquefaction or collapse would be less than significant.
- d. Soils of the project site consist of Hambright rock-outcrop complex, 30 to 75% slopes (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 site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.
- f. There are no unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

**Geo. 1- Paleontological Resources – Conditions of Approval:** Discovery of paleontological resources during construction, grading, or other earth moving activities:

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

Mitigation Measures: None are required.

VIII.	GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Discussion:

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

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including CO<sub>2</sub>, methane, nitrous oxide, and 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, farm equipment and management activity emissions. GHG emissions are reported as carbon dioxide equivalent (CO<sub>2e</sub>) which is a metric used to compare the emissions from various GHGs on the basis of their global warming potential (GWP), by converting amounts of other gases with different GWPs to an equivalent amount of carbon dioxide with a GWP of one. CO<sub>2</sub> is used as the reference gas to calculate atmospheric carbon effects of GHGs. Carbon stocks and sequestration 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>10</sup>

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

The 2022 CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin. They contain nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and greenhouse gas impacts generated from land use construction and operational activities.

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

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

<sup>10</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, understorey, 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).

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

In the absence of quantitative GHG thresholds from BAAQMD or a qualified CAP for the County, construction GHG emissions from the project are evaluated against the 1,100 metric tons (MT) per year and operational GHG emissions are evaluated against the 10,000 MT per year threshold from the neighboring Sacramento Metropolitan Air Quality Management District (SMAQMD). While air quality emission thresholds are difficult to apply to across air districts due to the regional nature of air quality impacts, GHG emission impacts are global in nature. Therefore, the use of neighboring air district thresholds is an adequate evaluation given the absence of GHG thresholds from BAAQMD or a qualified CAP for the County. However, the County, as the Lead Agency, has opted to use a no net increase threshold for the evaluation of carbon dioxide (CO<sub>2</sub>) emissions through carbon sequestration and carbon stock from vegetation at the project site.

"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>.

"Carbon storage" refers to the carbon stocks held in the soil and vegetation. When land is altered or vegetation is removed, the carbon stored in plants and soil can be released back into the atmosphere as a one-time event. Similarly, adding vegetation to a site would increase carbon stock. Unlike sequestration, which is an active, recurring process, changes to carbon stock typically result in a one-time change of CO<sub>2</sub>, and not an ongoing loss or gain over time.

"Carbon sequestration" refers to the ongoing process by which plants, such as vines, trees, and grasses absorb CO<sub>2</sub> from the atmosphere through photosynthesis, converting it into carbon that is stored in their biomass (roots, stems, leaves) and soil. This process helps remove CO<sub>2</sub> from the atmosphere over time. Any changes in land use or vegetation that reduce carbon sequestration—such as removing natural vegetation or converting land for other uses—lead to ongoing reductions in this CO<sub>2</sub>-capturing benefit, potentially increasing the amount of CO<sub>2</sub> that remains in the atmosphere annually. A decrease in carbon sequestration is considered an increase in CO<sub>2</sub> emissions.

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>2</sub>e) 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>2</sub>e 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>11</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 development area and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below).

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<sup>11</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).

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

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

**Construction Emissions:**

Equipment Emissions: As discussed in **Section III (Air Quality)**, three 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>2</sub>e of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO<sub>2</sub>e of construction equipment emissions per acre of vineyard development.<sup>12</sup> Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 1.3 gross acres of vineyard development would be approximately 12.22 MT CO<sub>2</sub>e (1.3 acres multiplied by 9.4 MT CO<sub>2</sub>e).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 1.3 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 site, total carbon stocks for the project site are estimated to be approximately 20.56 MT C or approximately 193.27 MT CO<sub>2</sub>e (**Table 6**).

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

Vegetation Type/Carbon Storage	Project Acreage	Carbon Storage/Stock per Acre (MTC/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT (CO <sub>2</sub> e)
Grassland	1.1	1.4	1.54	14.48
Oak Woodland	0.2	95.1	19.02	178.79
<b>Total</b>			<b>20.56</b>	<b>193.27</b>

Source: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, November 2025

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>13</sup> Using 50% as a more conservative estimate, the proposed project could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 69.0 MT CO<sub>2</sub>e (**Table 7**).

**Table 8 – Estimated Project Carbon Emissions Due to Vegetation Removal**

Vegetation Type/Carbon Storage	Project Acreage	Carbon Loss/Emission per Acre (MTC/Acre)	Total Carbon :Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO <sub>2</sub> e
Grassland	1.1	0.8	0.88	3.23
Oak Woodland	0.2	89.6	17.92	65.77
<b>Total</b>			<b>18.80</b>	<b>69.0</b>

Source: Napa County Drage Climate Action Plan, March 2012; Napa County Conservation Division, November 2025

**Operational Emissions:**

<sup>12</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>13</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.

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>2</sub>e of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO<sub>2</sub>e of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated that Operational Equipment Emissions associated with the proposed 1.3-acre agricultural development would be approximately 0.87 MT CO<sub>2</sub>e (1.3 multiplied by 0.67 MT CO<sub>2</sub>e).

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), and oak woodland sequesters approximately 0.43 MT C per acre per year. The developed land use is not identified by the 2012 Draft CAP and is considered similar to grasslands (essentially zero). Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 0.149 MT C per year or 0.55 MT CO<sub>2</sub>e per year<sup>14</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 81.22 MT CO<sub>2</sub>e and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 1.42 MT CO<sub>2</sub>e per year (Table 8).

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

Construction Emissions in Metric Tons of CO <sub>2</sub>		Annual Ongoing Emissions in Metric Tons of CO <sub>2</sub>	
Source	Quantity	Source	Quantity
Vehicles and Equipment	12.22	Vehicles and Equipment	0.87
Vegetation and Soil	69	Vegetation and Soil	0.55
<b>Total</b>	<b>81.22</b>	<b>Total</b>	<b>1.42</b>

Source: Napa County Conservation Division, June 2025

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 1,393.39 MT CO<sub>2</sub>e 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 proposed project or its site.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.01% 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 proposed project. For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a “considerable” contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

<sup>14</sup> 1.1 acres of grassland times 0.057 MT C = 0.063 MT C / 0.2 acre of oak woodland times 0.43 MT C = 0.086

As described above, total annual GHG emissions from ongoing operations are anticipated to be approximately 1.42 MT CO<sub>2</sub>e per year. As stated above, the updated BAAQMD thresholds of significance for land use projects are qualitative, with no “bright-line” (quantitative) level below which to mitigate. Projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal. 4th 204). As stated in **Section IV, Biological Resources**, the proposed project would result in the removal of approximately 1.1 acres of nonnative grassland and 0.2 acres of oak woodland. However, the loss in carbon sequestration as a result of the project’s proposed tree removal will be more than offset after incorporation of **Permanent Preservation Condition of Approval**, whereby the project will be required to permanently protect a 2:1 ratio of oak woodland vegetation (0.40 acres) from future development. Therefore, impacts will be less than significant. .

Mitigation Measures: None are required.

IX.	HAZARDS AND HAZARDOUS MATERIALS. Would the project	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<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 wild-land 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 off-site and staged on the existing driveway, as noted on the ECPA Plans. Chemicals will likely be stored/cleaned offsite; the nearest water source is an unnamed blue lined stream on the project site are located more than 100 feet from the proposed staging area. Fertilizers would be applied as necessary to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vinerows for weed management. Project storage and staging areas would be located within proposed clearing limits.

The unnamed blue lined stream meets the definition of a stream; project proposes to maintain required setback of 65-foot setback from the proposed vineyard blocks to the unnamed stream, consistent with Section 18.108.025. Additionally, there were two wetlands identified by the biologist and minimum of 50 foot setbacks shall be maintained, meeting setbacks for both.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) the proposed project would maintain buffers of 65 feet from the blue lined stream and 50 feet from the wetland; ii) project staging and storage areas would be a minimum of 100 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 law. Project approval, if granted, would also be subject to the following standard conditions that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance.

**Haz 1- Hazardous Materials – Conditions of Approval:** The owner/operator shall implement the following BMPs during construction activities and vineyard maintenance and operations:

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

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

- c. The closest schools is Stone Bridge School, located approximately 1.7 miles west, with all other schools being greater than 2 miles from the project site. 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 Napa County Airport, located over 6 miles southwest of the project site. 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 site on a temporary basis for ECP and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in no permanent substantial increase in the number of people working or residing at the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and no impact would occur.
- g. No structures are proposed as part of the project. The project site is located in an area identified as having a high fire severity and is

not located in the Local Responsibility Area ( Napa County GIS SRA Layer). The risk of fire in vineyards is low due to limited amount of fuel, combustibles, and ignition sources that are present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard results in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and impacts would be less than significant.

Mitigation Measures: None are required.

X.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
	a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 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?	<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 type="checkbox"/>	<input checked="" 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

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

On June 7, 2022, the Napa County Board of Supervisors provided interim procedures to implement provisions of the Napa County Groundwater Sustainability Plan (GSP) for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use. The direction limits a parcel’s groundwater allocation to 0.3- acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. The project well is located outside

of the GSA Subbasin.

To assess potential impacts resulting from project well(s) interference with neighboring wells within 500 feet and/or springs within 1,500 feet, the County's WAA guidance<sup>3</sup> requires applicants to perform a Tier 2 analysis where the proposed project would result in an increase in groundwater extraction from project well(s) compared to existing levels.

To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways and those non-navigable tributaries connected to navigable waters, the County's WAA guidance requires applicants to perform a Tier 3 or equivalent analysis for new or replacement wells, or discretionary projects that would rely on groundwater from existing or proposed wells that are located within 1,500 feet of designated "Significant Streams."<sup>15</sup>

Public Trust: The public trust doctrine requires the state and its legal subdivisions to "consider," give "due regard," and "take the public trust into account" when considering actions that may adversely affect a navigable waterway. (*Environmental Law Foundation v. State Water Resources Control Bd.*; *San Francisco Baykeeper, Inc. v. State Lands Com.*) There is no "procedural matrix" governing how an agency should consider public trust uses. (*Citizens for East Shore Parks v. State Lands Com.*) Rather, the level of analysis "begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust." (*Environmental Law Foundation*, 26 Cal.App.5th at p. 403.). As demonstrated in the *Environmental Law Foundation vs State Water Resources Control Board Third District Appellate Court Case*, that arose in the context of a lawsuit over Siskiyou County's obligation in administering groundwater well permits and management program with respect to Scott River, a navigable waterway (considered a public trust resource), the court affirmed that the public trust doctrine is relevant to extractions of groundwater that adversely impact a navigable waterway and that Counties are obligated to consider the doctrine, irrespective of the enactment of the Sustainable Groundwater Management Act (SGMA).

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

The project site is located predominantly (approximately 39 acres) within the Lake Hennessey Sensitive Domestic Water Supply Drainage, and a smaller portion (approximately 10 acres) within the Vinehill Creek Drainage of the Napa River Watershed. A majority of runoff ultimately runoff flows north and concentrates in the unnamed blue-line stream drainage course that flows into Lake Hennessey, thence the Napa River and San Pablo Bay. Within the 10 acres on the parcel within the Vinehill Creek drainage, runoff flows to the southwest and into the ephemeral stream that ultimately dissipates into the vineyard located on the parcel to the west, and ultimately the Napa River into the San Pablo Bay.

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

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)

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

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P25-00011-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

- b. Tier 1 Water Availability Analysis: A Tier 1 WAA was prepared to determine if the proposed increase in groundwater demand as a result

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<sup>15</sup> Refer to Figure 1: Significant Streams for Tier 3, located at [www.countyofnapa.org/3074/Groundwater-Sustainability](http://www.countyofnapa.org/3074/Groundwater-Sustainability). The "Significant\_Streams" and "Significant\_Streams\_1500ft\_buffer" GIS layers are published as publicly-available open data through the County's ArcGIS Online Account.

of the proposed project would result in a significant impact to groundwater supplies (EBA Engineering, May 2024 - **Exhibit E**). The Tier 1 WAA estimates the onsite groundwater recharge and both existing and proposed groundwater use to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Document adopted by the County on May 12, 2015.

There is one existing well on the parcel that provides water for the existing uses on site, and is proposed to serve the vineyard use as well. There is also a spring located in the northeast corner that does not currently supply water to the existing uses, nor does the project propose to use water from said spring. The existing well is not located within the Napa Valley Groundwater Sustainability Agency boundary.

Onsite water demands for existing uses totals 1.05 af/y, which includes one (1) residence (0.75 af/y) and a pool (0.05 af/y) and second residence (0.25 af/y). The proposed project would result in an additional 1.0 net acres of vineyard in two (2) vineyard blocks, which would increase the groundwater demand on the property by 0.50 af/y (0.5 af/ac/y for vineyard irrigation), for a total proposed parcel demand of 1.55 af/y.

Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the project aquifer recharge area 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 10-year average rainfall data (between 2012 to 2021), the average annual rainfall for the project parcel is 25.81 inches, for a total annual rainfall volume of 41.80 af/y for the parcel. The WAA considered precipitation, runoff, evaporation, canopy interception and the loss of water from an existing spring located in the northeast corner of the parcel to generate the parcel-specific average groundwater recharge rate of 10.58 af/y, which accounts for reductions in deep percolation rates on slopes over 30%. As the total proposed onsite groundwater extraction of 1.55 af/y as proposed is 14 % of the available water through recharge, less than the estimated average annual groundwater recharge at the property, the project meets the Tier 1 WAA criteria. Given the surplus of groundwater resources in terms of estimated average annual groundwater recharge, the 9.7 af/y increase in groundwater use associated with the mitigated project is highly unlikely to result in reductions in groundwater levels or depletion of groundwater resources over time. Less than significant impacts would result.

Tier 2 Water Availability Analysis: According to the County's WAA Guidelines (Napa County, 2015), if a project well is located within 500 feet of neighboring well(s), or within 1,500 feet of a spring used for water supply, a Tier 2 WAA (Well and Spring Interference) is required. According to the WAA prepared for this proposed project, there are no neighboring wells located within 500 feet of the project well; however, the onsite spring is located within 1,500 requiring a Tier 2 analysis. Given that the elevation of the spring is located approximately 240 feet above the elevation of the existing well head, it is opinion of the WAA that the hydraulic connectivity between the water in the spring and the water pumped from the existing well is nonexistent. Further, the elevation of the static water level in the existing well (690 feet above Mean Sea Level [MSL]), is significantly below the elevation of the spring. Please refer to Appendix A - Figure 5 of **Exhibit E** for a geologic cross-section showing the elevation difference between the spring and the existing well. It should also be noted that the distance drawdown output results of the Theis equation, suggest that drawdown from the pumping of the existing well should not extend past a linear distance of 500 feet when pumping at a rate of 10 GPM for one day.

Based on the increase in proposed groundwater use at the project site, the WAA satisfies the spring interference criteria, and is therefore in conformance with Napa County Guidelines. Less than significant impacts are expected.

Tier 3 Water Availability Analysis: A Tier 3 review is the County's adopted method for complying with its duties under the Public Trust Doctrine and is required when a project well is located within 1,500 feet of a County-designated "Significant Stream." The entire project parcel is located within 1,500 feet of an unnamed Significant Stream, including the existing Onsite Well (870 feet from the Significant Stream). The Tier 3 analysis demonstrated through modelling that the existing Onsite Well is not hydraulically connected and potential impact as a result of increased groundwater pumping for the proposed 1.0 net acres of vineyard would be de minimus. In order to meet the daily demand, conservatively the well would need to pump 10 GPD, pumping for approximately 3 hours per day would be required. The distance drawdown output results of the Theis equation suggest that drawdown from the pumping of the existing well should not extend past a linear distance of 500 feet when pumping at a rate of 10 GPM for one day, with the onsite well being located 870 feet from the stream. Less than significant impacts would result.

Considering: i) anticipated annual water use of the proposed project of approximately 1.55 af/y is below the anticipated annual groundwater recharge rate of approximately 10.58 af/y; ii) the Tier 2 Analysis concluded that groundwater use on the project parcel following project implementation is unlikely to result in significant drawdown at neighboring wells; iii) the Tier 3 WAA concluded that the project wells are not hydraulically connected to the Significant Stream located less than 1,500 feet away; iv) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and v) incorporation of the standard groundwater management conditions of approval below to reduce potential impacts associated with groundwater use, the proposed project (if approved) would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels

**Groundwater Management, Wells – Condition of Approval:** 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) for the project wells. Such data shall be provided to the County. 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. The project well shall be made available for inclusion in the groundwater monitoring network if the Director of PBES 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 proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of impervious surfaces that would concentrate runoff. 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.

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 fiber rolls/straw wattle sediment barriers, silt fencing, erosion control blankets, the application of straw mulch at a rate of 3,000 pounds per acre over disturbed areas, and establishment of a no-till cover crop with vegetative cover density minimum densities of 80% in proposed vineyard Block 1 and 75% in Blocks 2, 3 and 4, and the application of straw mulch cover on all disturbed areas as needed to achieve the required coverage. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibits A and F** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include out sloped vineyard avenues, cross slope diversions, waterbars with rock rip-rap energy dissipators, level spreaders along contours, and a storm drainpipe. These proposed erosion control measures are not anticipated to significantly alter the existing topography or drainage patterns of the project site, or direct surface flows into other watersheds (as further described below). As discussed in Section VII (Geology and Soils), erosion control features would maintain soil losses below the tolerable levels for the soil types found on the project site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs as a result of the proposed project, and that the proposed project is anticipated to decrease soil loss as compared to existing conditions.

A Hydrology Report for the proposed project was prepared by David A. Steiner, CPESC, CPWSWQ and Applied Civil Engineering (November 2024 – **Exhibit D**). The Hydrology Report used an analysis that compares area-weighted land cover factors before and after vineyard development. These calculations indicate that the proposed project would not result in a change in land use cover factors and therefore no increase in peak flow and runoff, consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be greater than predevelopment conditions. Therefore, the proposed project would have a less-than-significant impact with respect to alterations of existing drainage patterns of the site or area that would result in increased runoff, or considerable on or offsite erosion, siltation, or flooding.

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

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

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan-Safety Element, 2023). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in Section IX (Hazards and Hazardous Materials), the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in Sections IV (Biological Resources) and IX (Hazards and Hazardous Materials), buffers provided in the ECP to area watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact on or offsite water resources. Because the proposed project as designed is not expected to increase overall runoff rates or decrease times of concentration in relation to existing conditions (as discussed in Question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in Section VII (Geology and Soils), the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 0.96 tons per year, have no negative effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

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

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

Mitigation Measures: None are required.

XI.	LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Physically divide an established community?	<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, the city of Napa, is approximately 2.07 miles east 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 are designated Agriculture, Watershed and Open Space (AWOS) in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The project as proposed is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 24% and maintain, or improve, runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON 48 and CON 50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of Mitigation Measures BIO-1 through BIO-4 is consistent with Policies CON-16 and CON-17 which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources, as well as the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities. A Habitat Assessment was prepared for the proposed project (Exhibits B). The project as proposed would minimize potential direct, indirect, and cumulative impacts to special-status species and associated habitat occurring in the project site with implementation of Mitigation Measures BIO-1 through BIO-4. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that impacts to special-status species and their habitat can be minimized. With implementation of Mitigation Measures BIO-1 through BIO-4, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife movement would not be impaired.
- With the implementation of Mitigation Measure BIO-5, the proposed project exceed the preservation requirements exceed the preservation requirements of Policy CON-24, of 2 acres of oak woodland for every 1 acre impacted.
- With implementation of project proposals, Conditions of Approval and Mitigation in regards oak woodland and stream avoidance, mitigation measures to ensure less than significant impacts to birds, bats and bumblebees, and mitigation to oak woodlands with 0.40 acres being permanently preserved under a deed restriction, the proposed 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 Habitat Assessment was prepared for the proposed project (**Exhibit B**).
- The project site contains two wetlands within its boundaries, minimum 50-foot setbacks have been maintained from the wetlands in accordance with NCC Section 18.108.025 and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands. The proposed project 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 proposed project would not impact wildlife movement.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development to be no greater than pre-project conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, the proposed project would reduce soil loss, and sedimentation, and runoff.
- Tribal and Cultural Resources will be protected through the implementation of Cultural Resources Conditions of Approval which included a requirement for the applicant to comply with the Tribal Monitoring Agreement.

- The project as proposed is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant. The project is anticipated to result in no net decrease in carbon sequestration capabilities through tree and woodland protection condition.
- 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 Agriculture, Watershed and Open Space (AWOS), and is therefore consistent with Policy AG/LU-20.

For these reasons, the proposed project, with the Conditions of Approval and Mitigation Measure 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.

Mitigation Measures: None are required.

XII. MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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. Historically, the two most valuable mineral commodities in Napa County in economic terms have been mercury and mineral water. More recently, building stone and aggregate have become economically valuable. Mines and Mineral Deposits mapping included in the Napa County Baseline Data Report (Mines and Mineral Deposits, BDR Figure 2-2) indicates that there are no known mineral resources nor any locally important mineral resource recovery sites located on the project site. No impacts would occur.

Mitigation Measures: None are required.

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

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Discussion:

a/b. The project site is located in a rural setting where surrounding parcels are generally agricultural, undeveloped, planted with vineyards, or developed with rural residences. The closest offsite residence is located approximately 228 feet to the south of vineyard Block B, and approximately 19 residences are within 500 feet of the development area; the majority of which are located across Sarco Creek to the west and northwest of the proposed vineyard block developments. The closest residential area (Napa) is approximately 2.27 miles west of the project. Additionally, properties in the immediate area contain vineyards as well.

Activities associated with installation of the proposed project, including earthmoving and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer, excavator, dump truck, trencher, backhoe, and small trucks. **Table 10** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 10**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

**Table 10 – 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 Data Report Chapter 6 (Noise Resources) November 2005 (Version 1)

**Table 11** characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA.

**Table 11 – Estimated Distance to dBA Contours from Construction Activities<sup>1</sup>**

Distance from Construction	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 source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be approximately 75-60 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, Version 1, November 2005). These noise levels should be reasonably representative

of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. **Table 12** 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 12 – 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 source noise level of 84 dBA  
 Source: Napa County Baseline Data Report, Noise Section 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 70 dBA at the closest existing offsite residences.

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

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

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

Mitigation Measures: None are required.

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

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Discussion:

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

Mitigation Measures: None are required.

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

Mitigation Measures: None are required.

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

Mitigation Measures: None are required.

XVII.	TRANSPORTATION. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 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"/>
e)	Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a/b. Currently, the project site is developed with one single-family residence, a pool, accessory structures, landscaped areas, outbuildings, and an access road.

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

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

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

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

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

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

The proposed project is expected to generate approximately three (3) round trips, six (6) one way, per day during construction. Two (2) truck trips would deliver and remove heavy equipment at the start and end of project construction. Typical construction equipment anticipated for project implementation includes a medium excavator, D8 bulldozer, haul trucks, loader, or farm tractors with trailers. Pruning would occur approximately five (5) to ten (10) days of the year and is anticipated to generate 4-6 daily trips with 5-10 workers, resulting in approximately four round trips per day during pruning. Weed control would occur between February to April (outside of pruning months) and is anticipated to generate up to twelve workers. Harvest would occur approximately one (1) to five days with between five to 10 works and is anticipated to generate up to 2 to 6 daily round trips. One to four grape haul trucks would be used during harvest. Vehicular equipment for ongoing vineyard maintenance is anticipated to include ATVs, and proposed hand farming with passenger cars and/or light trucks. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

As indicated above, the TIS Guidelines provide a screening criterion that could be used to determine whether a VMT analysis is warranted for small projects, which are defined as projects that would generate fewer than 110 trips per day and may generally be assumed to cause less-than-significant transportation impacts. As indicated above, construction of the proposed project would generate up to approximately 10 one-way worker trips per day, with an additional two (2) one-way trips for mobilization and demobilization. Harvest would generate up to approximately 3 one-way worker trips, and two one-way truck trips per day (anticipated to result in approximately 80 annual round trips) for approximately five (5) to ten (10) days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 5-10 one-way trips per day during the days these activities occur, plus water delivery which would occur less than one time per week. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Land Use and Climate Innovation recommended screening criterion threshold for small projects generating fewer than 110 trips per day. Additionally, daily trips associated with the project would be temporary and seasonal in nature, further supporting conformance and observance of this screening criterion.

The project site is accessed from Shady Brook Lane, approximately 0.50 miles north from where it intersects Wildhorse Valley Road. Trucks and other equipment would use County roads or State highways for very short periods during construction and subsequent vineyard operations.

Traffic generated by construction of the proposed project and subsequent vineyard operation, including harvest, would increase traffic on area roadways and result in additional vehicle miles traveled compared to current conditions. These activities would occur on a temporary and/or seasonal basis, and they would generally occur during non-peak hours. Trips already occur due to the existing vineyard, 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 utilizing the existing site access off of Shady Brook Lane for project development (**Figures 1-3**). The proposed project does not include roadway improvements and/or modifications to Shady Brook Lane or the existing paved driveway 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 Agriculturally zoned properties and agricultural uses in the area. Therefore, the potential for the creation, substantial increase in hazards or hazards due to a geometric design feature and incompatible uses would be a less than significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX (Hazards and Hazardous Materials)**, for additional discussion related to emergency access.
- e. The proposed project would generate its largest demand for parking (maximum of five vehicles) during harvest, which would occur over one (1) to five (5) days. Current County ordinances do not require formal parking for agricultural projects. Parking within the proposed staging area and/or along proposed vineyard avenues would satisfy parking demands of project installation and subsequent vineyard operations. Therefore, no parking impacts are anticipated.

Mitigation Measures: None are required.

**XVIII. TRIBAL CULTURAL RESOURCES.** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion:

On November 3, 2025, the Yocha Dehe Wintun Nation reached out in response to the AB52 notification and requested an on-site consultation, due to concerns of the project uncovering previously undiscovered tribal resources. On December 3, 2025, County staff responded to arrange for a consultation and provide project condition language for their review. County Staff met with tribal representatives on January 29, 2025. A condition of approval for the owner to reach out to Yocha Dehe prior to earth disturbing activities has been included to allow for onsite monitoring through a Monitoring Agreement to be created for the project and signed by both the property owner and Yocha Dehe; per **Section V (Cultural Resources) Cultural 1**. Middletown Rancheria responded on November 7, 2025 that they would defer to Yocha Dehe Wintun Nation for any comments or concerns they may have. The Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria did not request consultation within the 30-day notification period, and because no response to the consultation invitation was received, the consultation time period elapsed.

- a/b. As discussed in **Section V (Cultural Resources)**, the proposed project’s Cultural Resource Reconnaissance did not identify any historical or archaeological resources within the project area, and probability of encountering cultural resources was determined to be low. However, as the project site has been identified as being within the aboriginal territories of the Yocha Dehe Wintun Nation, the project includes a Condition of Approval to enter into a monitoring agreement if one is desired prior to earth disturbing activities where a Yocha Dehe tribal monitor shall be present during vineyard development and require sensitivity training for all personal.

As identified in **Section V (Cultural Resources)** and with implementation of adequate protection for and avoidance of potential impacts on Tribal Cultural Resources will be provided. During onsite consultation, Yocha Dehe Wintun Nation indicated that the proposed project may result in potential impacts to Tribal cultural resources and recommend the following Condition of Approval. Therefore, the proposed project would result in less than significant impacts to Tribal Cultural Resources, including those that may be eligible for the CHRIS or local register or cultural resources as defined in Public Resources Code Section 5024.1(c).

**Tribal Cultural Resources – Condition of Approval**

The Owner/ Permittee shall revise Erosion Control Plan # P25-00011-ECPA prior to approval to include the following measures to minimize the potential to impact tribal cultural resources:

- a. Incorporate by reference the Yocha Dehe Wintun Nation’ s Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation.
- b. Prior to commencement of vegetation removal and earth- moving activities pursuant to # P25-00011-ECPA, the Owner/ Permittee shall provide documentation to Napa County demonstrating that they have engaged with Yocha Dehe Wintun Nation to provide cultural monitors and that cultural sensitivity training has been provided to site workers.
- c. Should the Owner/ Permittee be unsuccessful in engaging with the Yocha Dehe Wintun Nation, the Owner/ Permittee shall provide, for review and approval by Napa County, a Cultural Monitoring Plan prepared by a professional archaeologist certified by the Registry of Professional Archeologists ( RPA) . The Cultural Monitoring Plan shall outline monitoring requirements including but not limited to sensitivity training for site workers, find procedures, and monitoring documentation and reporting procedures.

Mitigation Measures: None are required.

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

Discussion:

- a. The proposed project would generate a minimal number of employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the property on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region and would not generate an increase in the population relative to 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 no groundwater is proposed to be used as part of this project.

Irrigation pipelines would be located within existing roadways, vineyards and vineyard avenues, and/or within proposed clearing limits. The proposed project would include the installation of onsite storm water drainage features such as straw wattles, a permanent no-till vineyard cover crop, drainage ditches, rolling dips, rock-filled avenue and rock apron at outfalls, and a detention basin, 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. Typically, the annual irrigation season ranges from late May to September. The WAA considered precipitation, runoff, evaporation, canopy interception and the loss of water from an existing spring located in the northeast corner of the parcel to generate the parcel-specific average groundwater recharge rate of 10.58 af/y, which accounts for reductions in deep percolation rates on slopes over 30%. As the total proposed onsite groundwater extraction of 1.55 af/y (0.50 af/yr proposed for vineyard irrigation) as proposed is 14 % of the available water through recharge, less than the estimated average annual groundwater recharge at the property, the project meets the Tier 1 WAA criteria. Given the surplus of groundwater resources in terms of estimated average annual groundwater recharge, the 9.7 af/y increase in groundwater use associated with the mitigated project is highly unlikely to result in reductions in groundwater levels or depletion of groundwater resources over time. 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 for landscaping and surfacing vineyard avenues. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, removed vines 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.

Mitigation Measures: None are required.

XX.	WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	<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 High Fire Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). The project site is flat to gently sloped and located on the Valley Floor with elevations ranging from approximately 130 to 175 feet above msl.

- a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site. Therefore, the proposed project would not affect 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 grassland would be cleared prior to developing the vineyard, and the risk would be temporary due to the short duration of construction (approximately six (6) months). 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. The proposed project would not exacerbate wildfire risk and this impact would be less than significant.
- d. Although the proposed project would alter land cover, the proposed project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would be a decrease in peak flow in the development area (see **Section X [Hydrology and Water Quality]**). The onsite residence and proposed vineyard

are located on relatively flat terrain. Therefore, there are no structures or people that would be exposed to downslope or downstream flooding or landslides and the impact would be less than significant.

Mitigation Measures: None are required.

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

- a. As discussed in this Initial Study, implementation of #P25-00011-ECPA, with the incorporation of identified conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment.

Implementation of conditions of approval would avoid potential direct and indirect impacts to the unnamed blue lined stream and wetlands onsite, protect oak woodland onsite as well as protect special status species that exists outside of the proposed project development area, as well as any unknown or undiscovered cultural or paleontological resources (if discovered). Given the small size of the project, the proposed agricultural and conclusion of the biologist that there are no existing wildlife movement or migration corridors within the project site or nearby. There are no landscape linkages, including the unnamed blue lined stream drainage, which will be maintained. As such, the proposed deer fencing 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. The unnamed blue lined stream and wetlands onsite are avoided with minimum buffers, will likely result in increasing the health of the unnamed blue lined stream and wetlands. Incorporation of standard conditions will provide protection of any cultural resources and hydrologic resources. Therefore, the proposed project as designed with the incorporation of conditions of approval, the proposed vineyard development project would have a less than significant potential to degrade the quality of the environment.

- b. The project site is located within the Tulucay Creek Drainage with approximately 0.72 acres of the parcel located within the Spencer/Murphy Creek Drainage along the southeastern property boundary. There is no proposed development within the Spencer/Murphy Creek Drainage. The Tulucay Creek Drainage contains approximately 2752.4 acres. In 1993, the vineyard acreage within the drainage was approximately 182.3 acres, or approximately 6.6% of the drainage. Since 1993, approximately 350.7 acres of

additional vineyard (or 12.7% of the drainage) have been developed to vineyard, resulting in approximately 14.18% of the drainage (390.3 acres) containing vineyard. The current project proposes to install new vineyard totaling 1.3 gross acres (1.0 net acres). There are no other pending vineyard developments within the drainage.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Tulucay Creek Drainage, that there are approximately 1068.3 acres (38.8% of the drainage) having the potential to be developed to vineyard, this in conjunction with existing and approved vineyard development (approximately 667.7 acres) results in a total potential build out of approximately 1458.7 acres or approximately 53% 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., Tulucay Creek Drainage) over the last 29 years (1993-2022) were used to project an estimation of vineyard development for the next three to five years. Over the past 29 years within the Tulucay Creek Drainage, approximately 13.5 acres of agriculture were developed per year (390.3 divided by 29). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 30 to 50 acres over the next three to five years within the Tulucay Creek Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 160 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON 24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

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

The proposed project(#P25-00011-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 4** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one 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. The project includes the removal of 0.20 acres of trees proposed to be removed as part of the project, and through proposed Mitigation Measure BIO-5, 0.40 acres of trees shall be within the parcel will be preserved. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

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

A project specific Habitat Assessment (**Exhibit B**) was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the proposed project. The reconnaissance survey included a records search to identify the presence or potential presence of special-status species within the project area. The records search included the USFWS, CNDDB, and CNPS databases. As discussed in **Section IV (Biological Resources)**, two special-status plant species were identified on the project site outside of the proposed development area. There were seven (7) special-status animal species present in the project area or vicinity. There is one unnamed blue-lined stream, a wetland and wetland seep within the proposed development area that will have minimum setbacks, including between 65 – 85 feet from the blue-lined stream and 50 feet from the wetland accordance with NCC 18.108.025. The wetland seep will not be impacted by the project. With the incorporation of **Mitigation Measures BIO-1 through 5**, invertebrates, special-status birds, raptors, bats, as well as bird nests and bat roosts, and oak woodland and canopy cover would be

protected. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

**Cultural and Tribal Resources – Sections V and XVIII:**

No cultural resources were identified within the project site. With the incorporation of standard conditions requiring property owner to obtain a Tribal Monitoring Agreement will protect cultural and tribal cultural resources that may be discovered accidentally, and, as such, significant impacts to cultural and tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified conditions of approval, the proposed vineyard development project would have a less than significant project-specific and cumulative impact on cultural and tribal cultural resources.

**Geology and Soils - Section VII:**

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced 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, and other best management practices, which would capture sediment and slow runoff, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions the proposed project is not anticipated to contribute cumulatively to sediment production within the Tulucay Creek 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 Tier 1, Tier 2 and Tier 3 WAA prepared by EBA Engineering., (May 7, 2024 – **Exhibit E**) indicate that the proposed development consisting of approximately 1.0 net acres of planted vineyard would result in approximately 0.50 af/yr of groundwater use. The total calculated water recharge for the project parcels is 10.58 af/y. Given the surplus of groundwater resources in terms of estimated average annual groundwater recharge, the 0.50 af/y increase in groundwater use is unlikely to result in reductions in groundwater levels or depletion of groundwater resources over time. The proposed project would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

As discussed in **Section X (Hydrology and Water Quality)** a Hydrology Report was prepared by David A. Steiner, CPESC, CPWSWQ (November 2023 – **Exhibit D**). The proposed project would result in no increase in peak flow or runoff compared to pre-project conditions; therefore, no significant impacts due to changes in hydrology are expected.

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

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

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

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

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

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Hazards and Hazardous Materials, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form

of heat lights or downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project does not conflict with any current zoning for agricultural or forestry use, nor does the proposed project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. There are no known mineral resource areas within the proposed project site or immediate vicinity. This project would generate noise levels that are considered normal and reasonable for agricultural activities and consistent with the County's "Right to Farm" Ordinance. The potential contribution to noise or vibration impacts is considered less than cumulatively considerable. Traffic related to construction and farm worker trips would not increase by a discernible amount and the relatively low and off-peak vehicle trips associated with the proposed project are considered less than cumulative considerable. The proposed project does not include the construction of structures that would result in population growth or displacement of people, the proposed project would not adversely affect current or future public services, or require the need for utilities and service systems. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

Considering the project site's characteristics, surrounding environment, and the scope and scale of the proposed project, the proposed project with incorporation of conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with this proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

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

Mitigation Measures: None are required.

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LIST OF EXHIBITS:

- Exhibit A 1260 Shady Brook Vineyard Erosion Control Plan and Plan Narrative #P25-00011
- Exhibit B Habitat Assessment, June 17, 2024
- Exhibit C Soil Loss Analysis, November 13, 2023

- Exhibit D Hydrologic Analysis, November 13, 2023
- Exhibit E Water Availability Analysis, May 7, 2024
- Exhibit F Application Submittal Materials and Correspondence
- Exhibit G Project Revision Statement