

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

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

1. **Project Title:** Eakle Water Storage Reservoir, Grading Permit Application #ENG21-00013
2. **Property Owner(s):** Samuel and Henry Eakle
3. **Contact Person, Phone Number and Email:** Pamela Arifian, Planner III, (707) 259-5934, pamelaa.arifian@countyofnapa.org
4. **Project Location and Assessor's Parcel Number:** 4720 Hardin Road, St. Helena, CA 94574
Assessor's Parcel Number (APN) 018-160-022 (**Figures 1 and 2**)
Section 25, Township 9 North, Range 5 West, Mt. Diablo Base and Meridian
Latitude 38° 36' 0" N / Longitude -122° 22' 1.2" W
5. **Project Sponsor:** PPI Engineering
2800 Jefferson St
Napa, CA 94558
Plan Preparer: Brent A. Edwards (RPE No. C 051461)
Edwards Engineering
1305 E Street
Napa, CA 94559
6. **General Plan Designation:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)
8. **Background:**

The parcel and surrounding area have been in used for agriculture and livestock since the 1800s. The subject property contains a residence with infrastructure, landscape plantings, barn, pasture land, and approximately 9.3 acres of existing vineyard on slopes less than 5%. The vineyard is irrigated by shallow perched subsurface water that is currently collected in an existing subsurface drainage system within the vineyard and pumped to existing water storage tanks to irrigate the vineyard.

The project originally proposed a 23-acre-foot reservoir, which was subsequently reduced to 18-acre foot to avoid removal of the existing five Valley oak trees located on slopes over 5% on the project site. The purpose of the proposed agricultural reservoir would be to store additional water from the existing subsurface drainage system for the purpose of irrigating the existing vineyard.

During County review of the proposed project application, it appeared from historic aerial photographs that the project site previously contained several large Valley oak trees located on land with slopes over 5% that were removed without benefit of a permit, prior to the submittal of the Grading Permit application. The project proposes a Valley oak replanting plan that would replace the Valley oaks that were removed with a tree replacement ratio based on the diameter-at-breast-height of the trees removed as advised by California Department of Fish and Wildlife (CDFW) (**Exhibit B-2 and Exhibit E**).

9. **Description of Project:**

The proposed project is a grading permit for land disturbing activities on land with slopes between 5% and 15% involving the clearing of nonnative grassland, grading and construction of an approximately 18-acre-foot (AF) offstream agricultural water storage reservoir that would store water collected from the existing subsurface drainage system that is currently stored in existing water tanks, to be used for irrigation of the existing vineyard. No new or expanded subsurface drainage tiles are proposed. The footprint of the proposed project is approximately 4.9 acres (i.e., project site). The project also proposes a Valley Oak Replanting Plan that would replant 114 Valley oak trees in an approximately 2-acre area on the approximately 20-acre parcel within the Maxwell Creek-Upper Reach of the Putah Creek watershed in Napa County (see **Figure 3 and Exhibit A**).

The proposed reservoir would be constructed of and lined with compacted native material free of deleterious material and rocks. The proposed reservoir and associated activities (i.e., staging area and fill disposal area) occurs on land with slopes between 5% and 15%, with two small areas with slopes over 30%. The reservoir would be constructed partially within a topographical depression between two small knolls. The proposed reservoir would be developed within a ruderal grassland area with five scattered Valley oak trees outside of the development area; no

native vegetation would be removed or disturbed, and no trees would be removed. The development area maintains required setbacks from property lines, and is located outside of the Federal Emergency Management Area (FEMA) flood zones.

The proposed reservoir would be filled by shallow perched subsurface water, which is currently collected in the existing subsurface drainage system in the vineyard adjacent to the proposed reservoir. Water from this existing subsurface drainage system is currently pumped to existing storage tanks located adjacent to the proposed reservoir site and used to irrigate the vineyard. The proposed reservoir would provide additional storage for the subsurface water that is already being captured and utilized; no expansion of the existing subsurface drainage would occur. No groundwater or surface water would be collected in the reservoir. (**Exhibit A** and **E**).

Earthmoving: Earthmoving and grading activities associated with construction of the proposed reservoir are detailed in the Grading Plans prepared by Edwards Engineering, dated March 2023 (**Exhibit A**). Earthwork would be balanced onsite with no offsite hauling; there would be approximately 13,000 cubic yards of cut and 13,000 cubic yards of fill.

Construction of the reservoir would be completed within 40 days. Construction would require approximately 14 truck roundtrips for project mobilization and demobilization for equipment and materials delivery and pickup. There would be between four (4) and ten (10) passenger vehicle round trips per day during construction. Construction equipment is anticipated to include two scrapers, one excavator, two dozers (one D-8 and one D-6), one tractor, one compactor and one water truck at various times during the construction period.

Erosion Control Measures: All disturbed soils on the site will be seeded and straw mulched, and any slopes greater than 25% (including embankments) shall be jute netted or hydroseeded prior to October 15 the year of construction (approximately 0.3-acre seeded on embankments). Following construction, the staging and stockpile and agricultural fill area would be seeded and mulched (approximately 1.29 acres). Straw wattles shall be installed as shown on the Plans immediately in the event of forecasted rainstorm activity during the construction season. The construction site entrance will be stabilized with 3-4" crushed rock to prevent tracking of soil offsite. Construction will occur during the dry season between April 1 and October 15, and all erosion control measures shall be in place prior to October 15. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the project, WDID #5S28W004919, Application No. 532854 dated March 4, 2021 (**Exhibit A**).

10. Describe the environmental setting and surrounding land uses.

The proposed project would occur on an approximate 20-acre parcel located at 4720 Hardin Road, St. Helena, CA, APN 018-160-022 (**Figures 1 – 3** and **Exhibit A**). The project parcel is located in Pope Valley, approximately 980 feet southeast from the intersection of Hardin Road and Dollarhide Road and within the Maxwell Creek-Upper Reach of the Putah Creek watershed in Napa County. Maxwell Creek, a blue-line stream, is located approximately 900 feet northwest of the project parcel, and an unnamed blue line stream is located approximately 300 feet to the southwest. There are no ephemeral/intermittent or County-definitional streams on the parcel; there is a drainage ditch on the northeast parcel line. The vegetation types of the area generally consist of agriculture (vineyard), ruderal/nonnative grassland with scattered Valley oak trees.

Land uses within the vicinity of the project parcel predominantly consist of scattered agricultural uses (vineyards, livestock grazing), rural residential, open space and undeveloped land. The nearest school (Pope Valley Elementary) is located approximately 4.2 miles northwest. The nearest offsite residence from the project areas (including the staging and stockpile area) is approximately 200 feet south of the project site.

The site is situated near the low-lying, southeastern area of Pope Valley on a relatively level to moderately sloping topography. Approximately half of the project parcel, including the existing vineyard, occurs on land with slopes less than 5% slopes, as is typical of a majority of the Pope Valley floor. The southwest portion of the parcel, including where the proposed reservoir and associated activities (i.e., staging area and fill disposal area) and the existing residential area is located, occurs on land with slopes between 5% and 15%, with two small areas with slopes over 30%. The reservoir would be constructed partially within a topographical depression between two small knolls. The relatively level to moderately sloping site is located at an approximate elevation of 600 feet above mean sea level. There are no known active faults through the site area, and the site is not located in the Alquist-Priolo Earthquake Fault Studies Zone. The nearest mapped faults are the Hunting Creek (approximately 4 miles to the northeast), the Great Valley IV (approximately 11 miles to the east), and the West Napa Fault (approximately 13 miles to the southeast). Soils within the project area, as classified in the United States Department of Agriculture Soil Conservation Service's Napa County Soil Survey (USDA, Soil Survey of Napa County, 1978) consist of Tehama silt loam, 0 to 5% slopes (Napa County GIS: SSURGO Soil type layer).

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

Responsible (R) and Trustee (T) Agencies

California Department of Fish & Wildlife (T)
Regional Water Quality Control Board (Regional Water Board) (R)

Other Agencies Contacted

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

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

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on December 11, 2023. The County did not receive a response from any of the tribes. On May 6, 2024, the County sent AB-52 Consultation Invitation Closure letters to all three tribes. The County received a response letter from Yocha Dehe Wintun Nation (YDWN) on January 26, 2024, stating that the project is within the aboriginal territories of the YDWN, and therefore the Tribe has a cultural interest and authority in the proposed project and requested formal consultation. On April 26, 2024, the County held a consultation meeting with a YDWN representative, during which time the Tribe requested a monitoring agreement for cultural sensitivity training and incorporation of the Tribe's Burial Treatment Protocol.

On May 6, 2024, the County received telephone correspondence from the Middletown Rancheria, during which the Tribe stated that the project area is within their cultural heritage territory and that the Tribe wished to consult on the project and requested a site visit. On May 16, 2024, the County met with the Tribal Representative and the project proponent to observe the site, after which time the Tribe provided direction that they be included with YDWN in cultural sensitivity training and Burial Treatment Protocol. The direction from both Tribes has been incorporated into **Section XVIII, Tribal Cultural Resources**. The County did not receive correspondence from the Mishewal Wappo Tribe following the Consultation Invitation Closure letter, and therefore considers consultation closed with that Tribe.

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with grading permit #ENG21-00013 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, or

<https://pbes.cloud/index.php/s/f8WHmer2oJ8jSYS>.

- Edwards Engineering, Revised March 2023, Eakle Water Storage Reservoir Grading Plans, 4720 Hardin Road, St. Helena, CA, APN 018-0160-022 (Exhibit A)
- Kjeldsen Biological Consulting, February 2022, Biological Resource Reconnaissance Survey, 23-Acre Foot Water Storage Reservoir, 4720 Hardin Road, Pope Valley, APN 018-160-022 (Exhibit B-1)
- Kjeldsen Biological Consulting, February 17, 2023, Valley Oak Replanting Plan, 4720 Hardin Rd, Napa County, CA (Exhibit B-2)

- PJC & Associates, Inc., December 1, 2020, Geotechnical Investigation for Proposed Eakle Reservoir, 4720 Hardin Road, St. Helena, California (Exhibit C)
- Edwards Engineering, February 21, 2021, Hydrologic Analysis, 4720 Hardin Rd, St. Helena, CA (Exhibit D)
- Flaherty Cultural Resource Services (FCRS), June 11, 2021, Cultural Resource Reconnaissance of 3+/- Acres Near Pope Valley, Napa County, California (a portion of APN 018-160-022).
- Application Submittal Materials and Correspondence (Exhibit E)
- Project Revision Statement (Exhibit F)
- Napa County Geographic Information System (GIS) sensitivity maps/layers
- Site visits by Napa County Conservation and Engineering Division on December 20, 2022, and May 16, 2024.

On the basis of this initial evaluation:

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

Pamela Arifian

Signature

January 13, 2025

Date

Name: Pamela Arifian, Planner III

Napa County

Planning, Building and Environmental Services Department

ENVIRONMENTAL CHECKLIST FORM

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized 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 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 property is located on the Pope Valley floor approximately 0.5 miles south of Dollarhide Road. The project site is over 1.8 miles southeast from the nearest County viewshed road (Pope Canyon Road), and is not located within a scenic corridor (Napa County GIS, Scenic Corridors Layer). Views of the reservoir would be consisted with the area, as there are vineyards and reservoirs in the area. The site is not located on a prominent hillside or a major ridgeline (Napa County GIS, Ridgelines Layer). There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. No trees would be removed by the proposed project and there are no historic buildings on the project parcel. The project is not visible from a scenic highway: there are no scenic highways in the area. Therefore, the proposed project would have a less than significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops for the reasons stated above.
- c. The proposed project would result in the development of a water storage reservoir in a previously undeveloped ruderal area, would avoid removal of scattered Valley oak trees adjacent to the project site and would result in restoration of Valley oak trees. The reservoir would be constructed in a manner that takes advantage of the local topography, with the reservoir primarily located in a dip between two knolls on the parcel, in between the residential development area and the vineyard on the parcel. The parcel is surrounded by land in agricultural use (livestock grazing, reservoirs, vineyards and open space). The proposed agricultural reservoir would remain in keeping with the character of the area. The proposed project is consistent with the Napa County Agriculture, Watershed and Open Space (AWOS) General Plan land use designation and with adjacent land uses, which include other vineyards, reservoirs, and rural residences. For these reasons, the impact would be less than significant.
- d. Construction of the proposed reservoir would be conducted during daylight hours and therefore would not require lighting. There would be no nighttime operational activities and therefore no lighting would be required after project construction was complete. There would be no new sources of light or glare and therefore no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The proposed project is to construct an agricultural water storage reservoir to support agricultural operations on the property. The development area is mapped partially as Farmland of Local Importance, which include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance with the exception of irrigation. These farmlands include dryland grains, haylands, and dryland pasture. The project itself is agricultural in nature and supports agriculture; therefore, this is considered to be a less than significant impact.
- b. The project site has an Agriculture, Watershed and Open Space (AWOS) General Plan designation and is zoned as Agricultural Watershed. Therefore, the establishment of an agricultural water storage reservoir for the irrigation of the existing vineyards on the property is consistent with the project site's land use and zoning designations. The parcel is not associated with a Williamson Act contract; therefore, no impacts are anticipated.
- 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). 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). No trees would be removed for the development of the proposed project. 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. Development of the project would support existing agricultural uses by providing water storage for water collected from an existing subsurface drainage system to irrigate existing vineyards designated as Farmland of Statewide Importance and Prime Farmland. As such, the proposed project would have no impact on agricultural or forest resources of Napa County.

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

Discussion¹

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

The Bay Area Air Quality Management District (BAAQMD) has published CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (referred to as CEQA Guidelines) to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans.² The CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin (SFBAAB). They contain nonbinding recommendations for how a lead agency can measure, evaluate, and mitigate air quality and GHG impacts generated from land use construction and operational activities.

The BAAQMD CEQA Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide BAAQMD-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. The BAAQMD published its most recent update to the CEQA Guidelines on April 20, 2023, which is referred to as the 2022 CEQA Guidelines. The 2022 Guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017). The potential impacts associated with construction and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with BAAQMD's 2022 CEQA Guidelines.

- a. The project site is located in the gently sloping Pope Valley, within the Napa County climatological subregion of the SFBAAB, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion facilitate accumulation of pollutants and increase the potential for air pollution. The proposed project would generate air quality impacts from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, and vehicular haul and worker trips. During construction, there would be between four (4) and seven (7) workers visiting the project site on a temporary basis to construct the proposed reservoir; refer to **Section XVII (Transportation)** for additional discussion of anticipated number of construction-related trips.

In the long term, potential air quality impacts would likely result from the operational phase of a project; in this instance, there are minimal activities associated with the operation of the proposed reservoir that would generate emissions. Maintenance of the reservoir after construction would be minimal, and it is anticipated to be maintained and monitored by the staff that is already coming to the site to farm the vineyards that are currently existing adjacent to the project area.

¹ [CEQA Thresholds and Guidelines Update \(baaqmd.gov\)](https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines): <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>

² BAAQMD, 2023. *2022 California Environmental Quality Act Air Quality Guidelines*. April 2023. Available at <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

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 (PM₁₀), fine particulate matter less than 2.5 microns (PM_{2.5}), 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 PM₁₀ standards, federal 24-hour PM_{2.5} standard and the state annual PM_{2.5} standard. Therefore, the criteria air pollutants of concern in the SFBAAB are reactive organic gases (ROG) and oxides of nitrogen (NO_x) which are referred to as ozone precursors, as well as PM₁₀ and PM_{2.5}.

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).³ 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”⁴ that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.⁵

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 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 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.

- b. The 2022 BAAQMD Guidelines provide thresholds of significance for air quality impacts from both construction and operation. According 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 1**.

³ 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.

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

⁵ 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.

Table 1 – 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 _x	54	54	10
PM ₁₀ ^a	82	82	15
PM _{2.5} ^a	54	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices (BMPs)	Not applicable	

^a 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 PM₁₀ and PM_{2.5} if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air pollutant emissions from the 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 Vineyards⁶ for an approximately 91-acre vineyard development, KJS and Sorrento Vineyard⁷ for an approximately 98-acre vineyard development, and Le Colline Vineyards⁸ for an approximately 28-acre vineyard development⁹.

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 2 shows the approximate anticipated construction emissions per acre per day associated with the development of vineyards 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.

Table 2 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Construction Emissions			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North vineyard ¹ (pounds per acre per day)	0.08	0.75 to 0.78	0.03	0.03
KJS and Sorrento vineyard development ² (pounds per acre per day)	0.14	1.26	0.05	0.05
Le Colline vineyard ³ (pounds per acre per day)	0.12	1.16	0.05	0.04
Average (pounds per acre per day)	0.11	1.01	0.04	0.04
Maximum (pounds per acre per day)	0.14	1.26	0.05	0.05

⁶ #P18-00446-ECPA, November 2022, SCH #2019100250

⁷ #P17-0432-ECPA, March 2023, SCH #2018092042

⁸ #P14-00410-ECPA, December 2022, SCH #2016042030

⁹ These EIRs are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services permanent files.

Project Construction Emissions based on Maximum (pounds per day)	3.13	10.31	0.44	0.40
Construction threshold	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions^{4,5} (pounds per day)			
Stagecoach North 91-acre vineyard operation¹	0.7	6.2	0.4	0.3
KJS and Sorrento 98-acre vineyard operation²	0.03	0.2	0.1	<0.1
Le Colline 28.5-acre vineyard operation³	<0.1	<0.1	<0.1	<0.1
Project Operational Emissions based on Maximum (pounds per day)	0.2	1.8	0.11	0.08
Operational threshold (pounds per day)	54	54	82	54
Significant?	No	No	No	No
	Operational Emissions⁴ (tons per year)			
Stagecoach North 91-acre vineyard operation² – Highest annual emissions	0.13	1.1	0.1	0.1
Project Operational Emissions based on Highest (tons per year)	0.04	0.33	0.02	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.

Daily construction emissions associated with the proposed project's 4.9 acres of land disturbance is significantly smaller than any of the projects presented above, and therefore emissions from the proposed project that could negatively affect air quality are expected to be significantly less than those identified in **Table 2** and therefore below identified thresholds. Furthermore, as described above, the operation of these vineyard projects include numerous traffic trips and usage of equipment for farming operations, such as tractors for mowing or applying chemicals, worker traffic trips for pruning and harvest, and grape truck trips for the hauling of fruit. A proposed reservoir has none of these operational activities as there is minimal to no maintenance associated with it once complete; a concrete sump would be installed which would have some associated emissions but would be at levels far below the tractor, truck, and passenger vehicle traffic associated with the three vineyard projects. Therefore, the operational emissions of the proposed project are expected to be far below those emissions presented in **Table 1** and even further below identified thresholds.

Additionally, project approval, if granted, would be subject to the standard Air Quality conditions described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction of the proposed project. These BMPs would be incorporated into the proposed project; therefore, the proposed project would result in a less than significant impact with respect to fugitive dust emissions.

Air Quality – Conditions of Approval:

The owner/permittee shall implement the following air quality BMPs during reservoir construction activities, 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 roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further 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 1 and would introduce fewer new vehicle trips than the projects shown in Table 2 during both installation and operation. Therefore, implementation of the proposed project would result in less than significant air quality impacts, and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

- c-d. Land uses such as schools, playgrounds, 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 adjacent to the development area include primarily agriculture (pasture/grains and vineyards), undeveloped land and scattered rural residences. The closest school (Pope Valley Elementary) is located approximately 4.2 miles northwest. The nearest offsite residence from the project areas (including the staging and stockpile area) is approximately 200 feet south of the project site.

During construction of the reservoir, airborne pollutants and odors would be created through the use of grading equipment. These sources would be temporary in nature and would occur approximately 4.2 miles from the closest school and 3.5 miles from the nearest residential neighborhood, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors, resulting in a less than significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input 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:

- Kjeldsen Biological Consulting, February 2022, Biological Resource Reconnaissance Survey, 23-Acre Foot Water Storage Reservoir, 4720 Hardin Road, Pope Valley, APN 018-160-022 (**Exhibit B-1**)
- Kjeldsen Biological Consulting, February 17, 2023, Valley Oak Replanting Plan, 4720 Hardin Rd, Napa County, CA (**Exhibit B-2**)
- Consultation with California Department of Fish & Wildlife, June 28, 2022 (**Exhibit E**)
- Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos

Kjeldsen Biological Consulting conducted an assessment of biological resources within the proposed project site and surrounding environment on February 8, 2022. The survey documented: land cover type (e.g., terrestrial communities, aquatic resources); suitable habitat for any special-status plant or wildlife species; presence of aquatic habitat natural communities (e.g., wetlands); and, special-status species, if present. The Kjeldsen Biological Resources Reconnaissance report (**Exhibit B-1**) provides pertinent background information and is discussed herein.

The approximately 4.9-acre reservoir site is located in an area that consists of ruderal disturbed grasslands that was previously used as a horse pasture. There are scattered Valley oak trees on the parcel, including five trees adjacent to the reservoir that would be avoided by project design.

The project, as proposed, would implement a Valley Oak Replanting Plan (**Exhibit B-2**), which would replant approximately 114 Valley oak trees on the parcel. The replant would address the pre-project removal of 14 Valley oak trees on slopes over 5% without benefit of a permit, which included 1 tree with a diameter-at-breast-height (dbh) between 5-10 inches, 4 trees with dbh between 10-15 inches, and 9 trees with dbh greater than 15 inches. Due to the special-status nature of Valley oak trees (refer to discussion, below), the County recommended the tree replacement mitigation protocol provided by California Department of Fish and Wildlife (CDFW), which requires replacement ratios based on the size of the removed trees, as follows: 4:1 for trees with 5-10 inches dbh; 5:1 for trees with 10-15 inches dbh, and 10:1 for trees with 15 or more inches dbh (refer to discussion, below, and **Exhibits B-2 and E**).

- a. **Special-Status Plants:** The proposed project site is within ruderal grassland scattered Valley oak trees. Database searches (i.e. CNDDDB, CNPS) for special-status species focused on the Chiles Valley, Aetna Springs, Walter Springs, Brooks, St. Helena, Lake Berryessa, Rutherford, Yountville and Capell Valley USGS 7.5-minute quadrangles. A total of 24 special-status plant species have been documented within those nine USGS 7.5-minute quadrangles. There were no records of special-status plants for the project site; there were records of three special-status plants, Sonoma ceanothus, Jepson's coyote-thistle and Sharsmith's western flax in the near vicinity of the project site. No special-status plant species were observed in the study area. As stated in **Exhibit B-1** (Kjeldsen, February 2022), following fieldwork, the biologist concluded that no special-status plants have the potential to occur within the project development area due to lack of habitat and the current and historic use on the site. Further, there are no sensitive biotic communities or biotic communities of limited distribution as identified in the Napa County Baseline Data Report or CDFW CNDDDB, and there are no USFWS-designated Critical Habitats located within the project site.

Special-Status Animals: The biologist's record search resulted in 13 special status animals having potential to occur within the project vicinity. The field survey did not find any special-status animal species known for the Quadrangle, surrounding Quadrangles or for the region, primarily due to the historic and current land use precluding sufficient habitat. The property is located within a CNDDDB confidence

interval for the tri-colored blackbird, which nests in tules within wetlands and reservoirs; the project area does not currently support this habitat, and the nearest reservoirs are located between 400 feet to the north and approximately 1,200 feet to the west and south and approximately 1,000 feet to the east. The nearest wetland areas are located approximately 400 feet to the west and 700 feet to the south, in addition to Maxwell Creek, located approximately 850 feet to the northwest, and Hardin Creek, located approximately 1,300 feet to the northeast. The current study area conditions are such that there is no reason to expect any impacts to special-status species on-site or off-site, or to substantially restrict the range of listed animals, provided standard best management practices are utilized and erosion control is implemented.

The field survey concluded that there were very few small animal burrows observed on site, and that no significant wildlife dens or burrows were observed, but that it is likely that small mammals and songbirds likely utilize habitats on the project parcel for foraging.

Non-status and special-status birds may forage in or around the development area and may nest in the existing scattered tree canopy located on the parcel, as well as in the tree canopy adjacent to Hardin Road and the riparian area that flows from south to north on the parcel to the south (approximately 300 to 600 feet to the southwest of the project parcel) and the woodland area in the hills to the south of the parcel, as well as the riparian area associated with Maxwell Creek.

Bats may use foliage and bark with small cavities in any tree for suitable roosting habitat. The trees near the proposed project area are unlikely to be potential roosting habitat for bats; further, these trees would be protected from construction activities with construction fencing; less than significant impacts are anticipated related to bats.

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-3¹⁰. Additionally, pursuant to Napa County General Plan Policy CON-13¹¹, 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 and 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 habitat can be avoided while allowing for the new development of a water storage reservoir to support agriculture on the project site (as further disclosed and assessed below); Policy CON-17¹² 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. No impacts are anticipated on special-status plant species.

While there were no observations of nesting birds within the project area, these species can move into the project area or areas adjacent to the project area. Noise generated from grading and ground disturbing activities have the potential to affect nesting birds. Potential impacts resulting from temporary and intermittent increases in noise levels may cause direct mortality, nest abandonment and death of young or loss of reproductive potential at active nests located near project activities, which is considered a potentially significant indirect impact to special status species. Implementation of **Mitigation Measure BR-1** would reduce potential impacts to a less than significant level by requiring pre-construction surveys for nesting birds, and avoidance of any active nests with exclusion buffers. Potential impacts related to special status plant and animal species, in addition to nesting and migratory birds are considered to be less than significant following implementation of **Mitigation Measure BR-1**.

¹⁰ Goal CON-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

¹¹ Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to: Provide protection for habitat supporting special-status species through buffering or other means.

¹² Policy CON-17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards: Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

Mitigation Measure BR-1: The Permittee shall include in #ENG21-00013 the following measures to minimize impacts associated with the loss and disturbance of nesting birds and raptors consistent with and pursuant Fish and Game Code Sections 3503 and 3503.5 and the California Endangered Species Act found in Fish and Game Code Section 2050 et seq.:

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

b-c. The project parcel does not contain any streams, nor are there any streams or wetlands immediately adjacent to the parcel that would be impacted by the project as proposed. There is a drainage ditch that flows along the northeast parcel boundary. The nearest streams with riparian habitat and wetland areas are Maxwell Creek (approximately 850 feet to the northwest) and Hardin Creek (approximately 1,300 feet to the northeast), as well as an ephemeral/intermittent stream located approximately 400 feet to the west and 700 feet to the south. The project would not result in significant impacts related to riparian habitat or wetland areas.

d. The proposed project involves the construction of an offstream agricultural water storage reservoir that is located in a previously disturbed area that had historically been grazed, and adjacent to vineyard and a residence. The parcel is currently fenced, and, per Notes 6 and 7 on Sheet 1 of the Grading Plans (Exhibit A), a six-foot fence will be installed around the reservoir, along with bilingual warning signage to prevent humans (and other large wildlife, if present) from falling into the reservoir and becoming trapped.

The subject property and the Pope Valley area in general have historically accommodated agricultural uses (primarily livestock grazing and more recently vineyards); which has resulted in a random pattern of fencing locations and types throughout the area. Therefore wildlife movement corridors and areas are hard to define. Likely wildlife movement corridors in the area and of the subject property would be the riparian areas associated with Maxwell Creek, Hardin Creek and their unnamed tributaries. The surrounding agricultural uses and existing rural residential development in the area, in conjunction with associated fencing have created impediments to wildlife movement and use in the immediate area.

The project site is not located within a mapped wildlife corridor identified in the Napa County Baseline Data Report. For local diurnal movement (daily movement between sources of food, cover, and water), wildlife generally follow stream courses when moving up and down slopes and use adjacent habitats (often preferring woodlands) for cover, browsing, or hunting. The actual width of usable corridors would continually change based on the density of vegetation, steepness of adjacent slopes or presence of unsuitable habitat such as fenced vineyards and residential areas. While common wildlife species presumably utilize the site to some degree for movement at a local

scale, the project site itself does not provide corridor functions as it is currently developed area and is surrounded by vineyards. The nearest drainage that may provide for wildlife movement would be Maxwell Creek and Hardin Creek, which as discussed in subsections a) and b-c) above, would not be impacted by the proposed project. No wildlife exclusion fencing is proposed and therefore the proposed project would not interfere substantially with wildlife movement. The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife nursery sites were not identified in the project site; therefore, there would be no impacts to wildlife nursery sites. The proposed reservoir would be located offstream and would be filled with water captured from drain tiles in the vineyard (**Exhibit A**), resulting in no impacts to fish species. There would be less than significant impacts to wildlife movement, habitat use, and availability.

- e. There are scattered valley oaks on the project site and parcel. Valley Oak Woodland (*Quercus lobata*; Rank G3 S3) is designated as a sensitive natural community by CDFW; however, the scattered trees do not constitute a Valley Oak Woodland, as determined by the project biologist (**Exhibit B-1**). Given the limited distribution of individual Valley oak trees within the County, Valley oak trees/individuals are considered by Napa County to be a species of limited distribution, subject to protection to the maximum extent feasible pursuant to Napa County General Plan Policies CON-17 and CON-24(C). The project proposes to avoid the five Valley oak trees located immediately adjacent to the proposed reservoir site; no tree removal would occur. The project proposes to install temporary construction fencing around the dripline of the tree canopies to ensure that these trees are protected from development activities. The following Condition of Approval would be implemented prior to project development activities to ensure that the trees are protected.

Tree Protection – Condition of Approval:

1. 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 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 project installation.
2. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #ENG21-00013 shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before achieving final on the grading permit. 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.

It appears from historic aerials that, as recently as 2018, the parcel contained several more Valley oak trees, including some that existed on land with slopes over 5% within the vicinity of the proposed project area that were removed without benefit of a permit as required by NCC Section 18.108.100(B) (refer to **Exhibit E**). As the County considers these to be sensitive trees of limited distribution, the County utilized the replacement ratios provided by CDFW for oak replacement, which is based on the diameter-at-breast-height (dbh) of the trees that were removed. According to the arborist's report, the Valley oak trees removed without benefit of a permit on land with slopes over 5% include 5 trees with 10-inches dbh, 3 trees with 14-inches dbh, and 4 trees with 50-inches dbh (Joe Branum Tree Care, Inc., December 2022 - **Exhibit E**). The project includes a Valley Oak Replanting Plan that would replant 114 Valley oak trees consistent with the CDFW replanting ratios¹³, with a performance standard of 80% at the end of 5 years (Kjeldsen, 2023 - **Exhibit B-2**). The trees would be planted in an approximate 2-acre area, and planting would occur after the first rains have soaked the soil, between early November and March. To ensure that the Valley Oak Replanting Plan is implemented, the County shall include the following Condition of Approval, which would require that the Replanting Plan be implemented in the fall/winter season immediately following project initiation activities, and that the grading permit would not be finalized prior to implementation of the Replanting Plan.

Valley Oak Replanting Plan – Condition of Approval: Prior to achieving successful final inspection on the Water Storage Reservoir Grading Permit #ENG21-00013, the Owner/Permittee shall obtain approval on a Restoration/Revegetation Permit through the Planning Department and shall fully implement the Valley Oak Replanting Plan (Kjeldsen, February 2023 – **Exhibit B-2**) in the fall season immediately following reservoir development in consultation with the project biologist. Following tree planting activities, the Owner/Permittee shall:

1. Submit a report on the implementation of the Valley Oak Replanting Plan to the Conservation and Engineering Department that demonstrates the appropriate and timely execution of the approved plan.

¹³ Per email correspondence with CDFW on June 22, 2022, the oak tree replacement ratio is 4:1 for trees with 5-10 inches dbh; 5:1 for trees with 10-15 inches dbh, and 10:1 for trees with 15 or more inches dbh

2. Submit monitoring reports to the Conservation Division by December 1st of each year, pursuant to the Replanting Plan.
3. The Replanting Plan shall achieve a performance standard of 80% survival at the end of 5 years. If 80% survival is not achieved, the Owner/Permittee shall be responsible for replacement plantings, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve the requirements.

Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization and soil protection, and species diversity. General Plan Conservation Element Policy CON-24(C) specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible, replacement of oak woodland at a 2:1 ratio is required. Removal of more than 1 acre of oak woodland for every 2 acres preserved would be considered a significant impact. The existing trees would be avoided by the project as proposed; further, the project parcel does not contain oak woodland, rather the project area contains ruderal grassland (Kjeldsen, 2021 - **Exhibit B-1**). No impacts would result related to consistency with General Plan policies related to oak woodland protection.

With implementation of the project as proposed, potential impacts related to consistency with Napa County General Plan Policies CON-17 and CON-24 regarding protections for species of limited distribution are less than significant.

NCC Conservation Regulations Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the AW zoning district retain 70% of the vegetation canopy cover based on the on-site canopy present on June 16, 2016. Specific to vegetation removal mitigation and preservation NCC Section 18.108.020(D) (Vegetation Removal Mitigation) requires that the removal of any vegetation canopy cover in the AW zoning district be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. NCC 18.108.020(D) prioritizes where the mitigation replacement and preservation areas should be allowed, whereby the first priority is for onsite replacement and/or preservation areas that generally occur on slopes less than 30% and outside of stream and wetland setbacks; if this cannot be reasonably accomplished, then onsite replacement and/or preservation may occur on slopes up to 50%, in areas that result in the highest biological and water quality protections, etc. NCC Section 18.108.020(E) (Preserved Vegetation Canopy Cover) requires preserved vegetation canopy cover to be protected (or otherwise enforceable restricted) thorough a perpetual protective easement or deed restriction preserving and conserving the preserved vegetation canopy cover.

As the project area and surrounding vicinity do not contain oak woodlands, tree canopy, or coniferous forest (i.e., "vegetation canopy cover"), the proposed project would not result in significant impacts related to consistency with the NCC Section 18.108.020. Because no trees are being removed and only developed area would be impacted, no impact is anticipated. Further, as proposed, the project would replant approximately 114 Valley oak trees pursuant to the Valley Oak Replanting Plan (refer to discussion under **Section IV, Biological Resources**, items b-c, above - **Exhibit B-2**), which would increase the tree canopy and habitat on the parcel, resulting in a beneficial impact. Less than significant impacts are anticipated.

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

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

Discussion

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

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

- Flaherty, Jay M., June 11, 2021, Cultural Resource Reconnaissance of 3+/- acres near Pope Valley, Napa County, California.

a-c. The cultural resources study (Flaherty Cultural Resource Services, 2021) indicated that two previous archaeological surveys had been conducted in proximity of the project area, but that no cultural resources or evidence of human remains were discovered following the site survey. However, the possibility exists that buried or obscured cultural resources such as but not limited to obsidian, chert and basalt flakes, groundstone (such as mortars and pestles), artifacts and human graves. It is unlikely that human remains would be discovered. Therefore, impacts on cultural resources and human remains are anticipated to be less than significant. Furthermore, the grading plan includes "Archeological Mitigation" measures during project implementation that would require that, should cultural resources or human remains be discovered during earthwork, all activity would be halted until the resources have been handled appropriately. To ensure that these measures are implemented, the following condition of approval would be incorporated into the proposed project, if approved, and would ensure that impacts remain less than significant.

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

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

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

Discussion

Consistent with Public Resources Code Section 21100(b)(3), this impact analysis evaluates the potential for the 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 40 days in one phase. 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 when compared with other similar agricultural construction sites within Napa County.

Once construction is complete, operational energy use would be minimal, primarily to operate the sump equipment, which is not considered to be a significant increase on energy use beyond existing condition, which involves regular mowing. 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 28% 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 consumed more than 13 billion gallons of gasoline and more than 3 billion gallons of diesel each year (CEC 2024). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 <https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan>).

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

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

iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Faults and Landslide layers:

- PJC & Associates, Inc., December 1, 2020, Geotechnical Investigation for Proposed Eakle Reservoir (**Exhibit C**)

The Geotechnical Investigation conducted by PJC & Associates, Inc. Consulting Engineers & Geologists included excavation of eight exploratory test pits to depths between 4 and 15 feet to observe the soil, bedrock and groundwater conditions (**Exhibit C**). Laboratory tests were performed on selected samples to evaluate their index and engineering properties and engineering analyses were performed to develop geotechnical recommendations for the design of the proposed reservoir Grading Plans (**Exhibit A**).

- 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 grading activities associated with the installation of a proposed water storage reservoir to support existing 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 impacts would be less than significant. Additional information supporting this conclusion is identified below.
 - i) 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 closest known potentially active faults to the site are the Hunting Creek (located four miles to the northeast), the Great Valley IV (located 11 miles to the east), and the West Napa (located 13 miles southwest) faults. The Geotechnical Investigation (**Exhibit C**) considered fault rupture and determined the likelihood of ground rupture at the site was low. Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) Although the project site is located in an area that may be subject to strong seismic ground shaking potential during an earthquake (California Geological Survey, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. The Geotechnical Investigation (**Exhibit C**) assumed that strong ground shaking will occur in the region and design parameters were incorporated to ensure the proposed reservoir would accommodate ground shaking. Therefore, this impact would be less than significant.
 - iii) The project site is located within an area identified as having low liquefaction potential (Napa County GIS Liquefaction layer). 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) There is a large landslide deposit in the hills approximately 0.3-mile to the southwest of the project area; however there is no evidence of landslide on or near the proposed development area. Given the agricultural nature of the proposed project and the proposed project design, the proposed project would not directly or indirectly cause potential substantial adverse effects involving landslide potential; a less than significant impact would occur (also see question c below for additional discussion regarding slope stability and landslides).

b. Soils in the project site have been classified according to the Soil Survey of Napa County (USDA 1978) as Tehama silt loam, 0 to 5% slopes. Implementation of the proposed project would involve vegetation removal and earthmoving activities within the proposed development area. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earth-disturbing activities (other than installation of winterization measures) 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.

Construction of the proposed project could have the potential to increase erosion if erosion control measures were not implemented. The project would be covered by a SWPPP (WDID #5D28W004919) which requires a series of standard and site specific BMPs. In addition to the SWPPP, the Grading Plans require that all disturbed soils on the site will be seeded and straw mulched, and any slopes greater than 25% (including embankments) shall be jute netted or hydroseeded prior to October 15 the year of construction. Straw wattles shall be installed as shown on the Plans. The construction site entrance shall be stabilized with 3-4" crushed rock to prevent tracking of soil offsite. Construction will occur during the dry season between April 1 and October 15, and all erosion control measures shall be in place prior to October 15. Refer to the Erosion Control Notes on Sheet 1 of **Exhibit A**. Therefore, the project with incorporation of erosion control features into the design and compliance with the SWPPP (WDID #5D28W004919) will result in a less than significant impact due to erosion.

- c. As discussed above, the development area is not in an area prone to landslides, ground failure, liquefaction, or other areas of potential soil instability. PJC & Associates conducted a slope stability analysis as part of the Geotechnical Investigation (**Exhibit C**) and provided the design parameters to ensure the proposed reservoir would not be impacted by or cause impacts to slope instability. Therefore, the proposed project would not result in any significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.
- d. The Geotechnical Investigation (**Exhibit C**) reviewed the soils onsite and determined the clay soils at the site have moderate to high expansion potential. Design parameters provided in the Geotechnical Investigation were incorporated to ensure the proposed reservoir would not be impacted by expansive soils or other geologic factors. Therefore, there would be less than significant impacts associated with expansive soils.
- e. The proposed project involves the development of a reservoir. No septic tanks or alternative wastewater disposal systems are needed or proposed for the proposed project. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.
- f. The proposed project would not destroy any 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 a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

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

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

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

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

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)¹⁴, and included them in its updated CEQA guidance published in April 2023 (referred to as the 2022 CEQA Guidelines). 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, to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that best management practices be applied and considered when reviewing projects until a revised CAP is adopted to ensure that projects address the County's policy goal related to reducing GHG emissions. In addition, the BOS recommended utilizing the emissions checklist and associated carbon stock and sequestration factors in the Draft CAP to assess and disclose potential GHG emissions associated with project development and operation pursuant to CEQA.

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as the part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County's community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at <https://www.countyofnapa.org/589/Planning-Building-Environmental-Services>. The County's draft CAP was placed on hold when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

For the purposes of this assessment the carbon stock and sequestration factors identified within the 2012 Draft CAP are utilized to calculate and disclose potential GHG emissions associated with agricultural "construction" and development and with "ongoing" agricultural maintenance and operation, as further described below. The 2012 Draft CAP carbon stock and sequestration factors are utilized in this assessment because they provide the most generous estimate of potential emissions. As such, the County considers that the anticipated potential emissions resulting

¹⁴ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>, April 2022

from the proposed project that are disclosed in this Initial Study reasonably reflect proposed conditions and therefore are considered appropriate and adequate for project impact assessment.

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

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

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

a-b. GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO₂), methane, ozone, and fluorocarbons, which contribute to climate change. CO₂ is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. In this case CO₂ is used as the reference atom/compound to obtain atmospheric carbon CO₂ effects of GHG. Carbon stocks are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁵

One time "Construction Emissions" associated with the project include: i) carbon stocks that are lost or released when site vegetation is removed; ii) underground carbon stocks, or soil carbon, released when soil is ripped (referred to as Carbon Stock Emissions below); and iii) emissions associated with the energy used to develop and prepare the project area, construction, and construction equipment and worker vehicle trips (hereinafter referred to as Equipment Emissions).

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 and is considered with the ongoing operational emissions for comparison with the no net increase threshold.

"Operational Emissions" of the proposed reservoir are also considered and include: i) any reduction in the amount of carbon sequestered by existing vegetation that is removed as part of the project (hereinafter referred to as Operational Sequestration Emissions); and ii) ongoing emissions from the energy used to maintain and operate the reservoir, including vehicle trips associated with employee trips (hereinafter referred to as Operational Emissions). As discussed above, there is minimal vegetation within the development area because it is currently ruderal grassland. As discussed in **Section VI, Energy**, once construction is complete, operational energy use would be minimal, primarily to operate the sump equipment, which is not considered to be a significant increase on energy use beyond existing condition, which involves regular mowing. Operation of the reservoir would not include any unusual maintenance activities that would cause a significant difference in energy efficiency compared to the surrounding developed land uses. Additionally, the project proposed a Valley Oak Replanting Program that would plant 114 Valley oak trees with an approximate 2-acre area, with a minimum 80% success rate after five years, which would result in an increase in carbon sequestration in the long term.

¹⁵ "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO₂. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

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. The list of construction equipment presented in each of the three referenced EIRs was reviewed and it was determined that the equipment list for the three vineyard development projects was substantially similar to the list of construction equipment required for the proposed project. In addition, the project activities for these three vineyard projects were reviewed. It was determined that these vineyard projects included various grading and earthmoving components (e.g., construction of sediment basins, reservoir spillway repair, diversions, level spreaders, roads, etc.) that are of a similar nature or scope to the proposed reservoir project or would utilize similar construction equipment, and therefore the comparison of the proposed reservoir against these three vineyard EIRs is appropriate for this air quality and GHG analysis. 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) CO₂e of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO₂e of construction equipment emissions per acre of vineyard development. While recognizing that the scope and scale of the proposed reservoir is different than a vineyard project of comparable size, using this emission factor, it is anticipated that Construction Equipment Emissions associated with the proposed 4.9 gross acres of land disturbance would be approximately 46.06 MT CO₂e (4.9 acres multiplied by 9.4 MT CO₂e).

Carbon Stock Emissions: Carbon stock emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of a site to a different land use. The development area (including the 4.9-acre project development area and the 2-acre tree replant area) is currently disturbed non-native grassland. Within the 6.9-acre project area, only approximately 1.5 acres would be considered a permanent change in land use (i.e., the reservoir excluding the embankments), as the remaining area would be replanting either with seed or Valley oak trees.

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 GHG Emissions Checklist and associated carbon stock factors developed as part of the 2012 Draft 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 development area, total carbon stocks for the development area are conservatively estimated to be approximately 2.13 MT C or approximately 7.82 MT CO₂e (**Table 3**).

Table 3 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage¹	Carbon Storage/Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO₂e
Existing				
Non-native Grassland – Vegetation (project area)	1.5	1.42	2.13	7.82

¹ Development area acreage includes only that area that would be converted to a different use (i.e., not replanted following construction)

Source: Napa County Draft Climate Action Plan, March 2012

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 to 25% while others have suggested 50%.¹⁶ Using 50% as a more conservative estimate, the proposed project (i.e., the reservoir, agricultural fill and staging/stockpile areas – 4.9 acres) could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 14.39 MT CO₂e (**Table 4**).

Table 4 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type / Carbon Storage	Development Area Acreage¹	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO₂e
Grassland	4.9 acres	0.8	3.92	14.39

¹ Development area acreage includes only that area where vegetation removal and grading/ripping would occur; the tree replant area would not be graded, rather, the trees would be planted within the existing grassland area.

Source: Napa County Draft Climate Action Plan, March 2012

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

Operational Emissions:

Operational Equipment Emissions: The referenced vineyard development project analyses also assessed ongoing vineyard operation emissions associated with vehicles and equipment. As discussed in **Section III, Air Quality**, these EIRs contain similar construction equipment and therefore are an appropriate comparison to the proposed project's construction emissions, however the operation of the vineyards analyzed in these three EIRs far exceeded the operational requirements (and therefore emissions) of the proposed reservoir. Estimated potential operational 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 CO₂e of operational emissions for a 560-acre vineyard, resulting in approximately 0.67 MT CO₂e of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated that Operational Equipment Emissions associated with a proposed 4.9-acre reservoir development would be approximately 3.28 MT CO₂e (4.9 multiplied by 0.67 MT CO₂e). While a proposed reservoir has none of the tractor, worker trip, or grape truck trips associated with vineyard operational activities, a sump would be installed which would use some level of energy. Therefore, the operational emissions of the proposed project are expected to be far below 3.28 MT CO₂e but it will be utilized to provide a more conservative analysis of Operational Equipment Emissions for the proposed project.

Operational Sequestration Emissions: Emissions associated with change of sequestration due to land use change (i.e., the conversions of existing vegetation to reservoir or from grassland to trees) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 MT C per acre per year, while grasslands, shrublands and developed are essentially zero (0.057 MT C). Within the 4.9-acre project development area (i.e., reservoir, agricultural fill and staging/stockpile area), as proposed, the project would convert a total of 1.5 acres of grassland to reservoir, while the reservoir embankments (approximately 0.3-acre) and the staging/stockpile and agricultural fill area (maximum of approximately 3.1 acres) would be reseeded following development (i.e., replace grassland with grassland; no permanent change in sequestration). As such, the operational sequestration emissions for the permanent conversion of approximately 1.5 acres of grassland to reservoir would result in a reduction of approximately 0.09 MT C or 0.33 MT CO₂e per year compared to the existing condition. However, the project also proposes to plant 114 Valley oak trees within a 2-acre area of existing grassland on the parcel outside of the development area. The conversion of 2 acres of grassland (2 acres x 0.057 MT C per year = 0.11 MT C per year / 0.42 MT CO₂e/year) to oak woodland (2 acres oak woodland x 0.425 MT C/year = 0.85 MT C per year / 3.12 MT CO₂ per year) would result in a net increase of approximately 0.74 MT C per year / 2.72 MT CO₂ per year as a result of the tree replant plan. In total, the project as proposed would result in an increase in sequestration of approximately 0.65 MT C per year or 2.39 MT CO₂ per year, a beneficial impact compared to existing conditions.

Total Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of 60.45 MT CO₂e and annual ongoing emissions (including loss of sequestration) would be less than 2.63 MT CO₂e per year (**Table 5**).

Table 5 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons CO ₂ e		Annual Ongoing Emissions in Metric Tons CO ₂ e	
Source	Quantity	Source	Quantity
Vehicles and Equipment	46.06	Vehicles and Equipment	3.28
Vegetation and Soil	14.39	Loss of Sequestration	-0.65
Total	60.45	Total	2.63

Source: Napa County Conservation Division, 2023

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 60.45 MT CO₂e by considering the size of the proposed project in relation to projected vineyard development in the County, which is the most appropriate comparison to be made for this agricultural project even though it is a proposed agricultural reservoir. The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008) projected 12,500 acres of new vineyard development in the County between 2005 and 2030. The County concluded in the General Plan EIR that emissions from all sources over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Because this determination was based on emissions from all sources, not just agriculture, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts.

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

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

In the context of 12,500 acres of projected agricultural development, the proposed project would constitute approximately 0.05% of the agricultural ground disturbance anticipated in the General Plan EIR. The proposed project also contains measures to reduce and/or offset emissions from development, specifically including grass on the proposed reservoir embankments that will minimize erosion risk while also slightly offsetting carbon sequestration loss, and by reseeding the grassland in the area of the proposed staging, stockpiling and agricultural fill areas post-construction. These measures in conjunction with the Air Quality conditions of approval (detailed in **Section III, Air Quality**) would further reduce potential GHG impacts associated with construction and ongoing operation of the proposed project. For these reasons, the County does not consider onetime GHG emissions from the proposed reservoir development to be a significant impact on a project level basis or to be a "considerable" contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

As described above, total annual GHG emissions from ongoing operations are extremely conservatively estimated to be 2.63 MT CO₂e per year. (This estimate is derived from vineyard agricultural operations that include tractor use, worker trips, grape harvest and hauling, which would not be required for a proposed reservoir.) 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).

The loss in carbon stock of the ruderal grassland would be partially offset by the planting of a grassed cover crop on the reservoir embankments (approximately 0.3-acre) and to restore the staging, stockpile and agricultural fill area (approximately 3.1 acres). Further, the loss in carbon stock would be more than offset by the planting of approximately 2 acres of Valley oak trees, as proposed. Therefore, the proposed project would be consistent with the State's long-term climate goals.

Further, as stated above, per the OPR Technical Advisory, the addition of 110 or fewer daily trips could be presumed to have a less-than-significant VMT impact. As detailed in **Section XVII, Transportation**, if any maintenance of the reservoir was required it is anticipated to be maintained and monitored by the staff that is already coming to the site to farm the vineyards that surround the development area and therefore no new operational trips would be generated by the proposed project. Therefore, daily trips generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less-than-significant impacts related to operational GHG emissions are anticipated.

Given that the proposed project would result in negligible change to carbon storage due to conversion of ruderal grassland to reservoir, and that the operational vehicle miles traveled fall well below the established threshold of 110 daily trips, the project is considered to be consistent with the State's long-term climate goals of being carbon neutral by 2045; therefore, a less than significant impact is anticipated.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<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"/>

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a-b. Construction of the proposed project 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. After the project is built, minimal operational activities will be required and the conversion of the area from ruderal grassland to water storage reservoir will not change the amount of chemicals used at the site that are considered hazardous materials. Therefore, there may be some risk related to hazardous materials during construction phase and minimal risk during operation of the reservoir.

The National Resource Conservation Service 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).

The proposed development area does not contain aquatic resources, and the nearest stream is located approximately 300 feet to the southwest. Therefore, no waterways have the potential to be significantly impacted by the proposed project.

Project approval, if granted, would also be subject to the following standard conditions of approval 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. Impacts related to routine use, transportation, and application of hazardous materials described above are anticipated to be less than significant. The following conditions of approval would be implemented to reduce potential accidental release of hazardous materials, if the project is approved:

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

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

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

- c. The closest school is Pope Valley Elementary, located 4.2 miles northwest of the project area (Napa County GIS, Schools Layer). There are no schools 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 waste layer). The closest site is located approximately 1 mile away. Therefore, no impact would occur.
- e. The project site is neither located within an area covered by an airport land use plan, nor is it within 2 miles of a public, public-use, or private airport (Napa County Airport Land-use Compatibility Plan, 1991). The closest public airport to the project site is Angwin-Parrett Airfield located approximately 3.8 miles southeast. Therefore, no impact would occur.
- f. During construction, there would be four (4) to seven (7) workers visiting the project site on a temporary basis to construct the proposed reservoir. Maintenance of the reservoir after construction would be minimal and it is anticipated to be maintained and monitored by the staff that is already coming to the site to farm the vineyards that surround the development area. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near 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 the impact would be less than significant.
- g. No occupied or habitable structures are proposed as part of the project. The project site is located in a State Fire Protection Responsibility Area identified as having high to very high fire severity (Napa County GIS, Fire Hazard Severity Zone; CalFire 2007 - <https://egis.fire.ca.gov/FHSZ/>). The risk of fire in vineyards is low due to limited amount of fuel, combustibles, and ignition sources that are present and the development area is surrounded by pasture, existing vineyard, ruderal land and residence. The construction and operation of a reservoir does not have an inherent risk of fire. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and there would be no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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 in order to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

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 [identify whether the well is in the GSA Subbasin, the Napa County Groundwater Deficient Area (MST), or outside GSA Subbasin/Hillside.]

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 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."

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.

As described above, the proposed project is the construction of a new approximately 18 AF agricultural reservoir to store subsurface water, which is currently collected in the existing subsurface drainage system in the vineyard adjacent to the proposed reservoir. No new or expanded drainage tiles are proposed. Although the development area is within 1,500 feet of a County-designated "Significant Stream" for the assessment of groundwater pumping impacts, no groundwater would be pumped for or stored in the reservoir and therefore a WAA is not required.

- a. Waste discharge is not anticipated as part of the ongoing operation of the proposed reservoir. To ensure there are no potential impacts to water quality due to construction of the proposed project, numerous erosion control measures have been included in the project plans (**Exhibit A**) and Waste Discharge Identification (WDID) number has been assigned by the State Water Resources Control Board (WDID #5S28W004919). As discussed further in the project description, 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. The Grading Plans (**Exhibit A**) include 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. The proposed agricultural reservoir would store subsurface water, which is currently collected in the existing subsurface drainage system in the vineyard adjacent to the proposed reservoir. No groundwater use is proposed; therefore, the proposed project would not affect groundwater supplies, groundwater recharge, or local groundwater aquifer levels, or related to proximity to "Significant Streams." No impact would occur.
- 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. As discussed in subsection a above and in **Section VII, Geology and Soils**, the proposed project has been designed with erosion control measures and has obtained coverage under the SWPPP Program to ensure that impacts to water quality due to erosion or siltation have been minimized. The conversion of existing ruderal grassland to reservoir is not expected to significantly alter the amount of surface water runoff, and would not increase runoff flow rates. The proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of significant new impervious surfaces that would concentrate runoff.

The project site is not located in an area of a new planned stormwater drainage system, nor is it directly served by a stormwater drainage system. A system of subsurface drains will be installed below the reservoir to ensure proper functioning of the synthetic liner. These drains will discharge to an existing stormwater drainage system located approximately 400 feet from the project site. Any water collected in these drains will be natural groundwater and will not contain any sediment or contaminants. As discussed above, no overall increase in runoff is anticipated under post-project conditions. Furthermore, as discussed in **Section VII, Geology and Soils**, no increase 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.

- 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 project 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 construction activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment). As discussed in **Section IV, Biological Resources** and **Section IX, Hazards and Hazardous Materials**, buffers provided in the Grading Plans to area watercourses would trap any chemicals or sediment such that any potentially hazardous materials associated with project implementation can be trapped and degraded in buffer vegetation and soils to protect water quality. The project would result in fewer agricultural chemicals being applied in the area as the current land use requires chemical inputs (fertilizers, herbicides, pesticides, etc.) for the farming of vineyard, but the proposed reservoir would not require chemical inputs after construction was complete. Because the proposed project as designed is not expected to increase overall runoff rates or sedimentation 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. The Grading Plans include 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. The proposed project has obtained a SWPPP (WDID #5S28W004919; Exhibit A) to further ensure compliance with regulations governing water quality and minimizing the potential risks to water quality.

The proposed project does not seek to use or store groundwater. The proposed agricultural reservoir would store subsurface water, which is currently collected in the existing subsurface drainage system in the vineyard adjacent to the proposed reservoir. No groundwater use is proposed. Therefore, the proposed project would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

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Discussion

- a. The project site is located on Hardin Road, and the nearest established community is Angwin, approximately 4 miles southwest of the project site. The subject property contains a residence with infrastructure, landscape plantings, barn, pasture land, and approximately 9.3 acres of existing vineyard on slopes less than 5%. Surrounding areas contain agricultural, rural residential and open space. Therefore, the proposed reservoir to support existing vineyard operations are consistent with surrounding land uses and would not physically divide an established community and no impact would occur.
- b. The project site is zoned as Agricultural Watershed and is designed under the Napa County General Plan as Agricultural, Watershed and Open Space. Surrounding parcels are also zoned Agricultural Watershed in the Napa County General Plan Land Use Element. Vineyards and associated improvements, including reservoirs, are permitted uses under these designations.

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

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. The project has obtained a SWPPP (WDID #5S28W004919; **Exhibit A**) and therefore is in compliance with the National Pollution Discharge Elimination System (NPDES) program, as further discussed in **Section VII, Geology and Soils**, and **Section X, Hydrology and Water Quality**.
- 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 reduce runoff characteristics as compared to existing conditions.
- The proposed project, with implementation conditions of approval and **Mitigation Measure BR-1**, is consistent with Policies CON-13, 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 Biological Resources Survey Report was prepared for the proposed project (**Exhibit B-1**). 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 Measure BR-1**. Furthermore, implementation of these measures and conditions of approval 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 BR-1**, 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 because it would replace approximately 2 acres of non-native grassland with Valley oak trees, a species of limited distribution. With these measures and conditions, 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.
- The proposed project is consistent with Policy CON-24, as there is no oak woodland existing on the parcel.
- The project site does not contain wetlands within or near its boundaries and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands.
- The proposed project 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 proposed project 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 a reservoir intended to support agricultural uses in the County.
- The proposed project is consistent with the General Plan land use designation of AWOS and is therefore consistent with Policy AG/LU-20.

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

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

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2, 2-3 and Map 2-1, 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Vulcan Materials Quarry located approximately 23 miles southeast of the project site. Proposed development of a reservoir on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped grasslands and woodlands interspersed with vineyards, wineries, and rural residences. The nearest residence to the project site are located approximately 200 feet southeast of the project site (i.e., staging and stockpile area; the residence is located approximately 450 feet southeast of the reservoir development footprint). Additionally, adjacent proprietries and other properties in the immediate area contain agriculture (pasture, vineyards), rural residential and open space.

Activities associated with installation of the proposed project could generate temporary noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a crawler tractor (D-

8), two scrapers, a compactor, one excavator, dump truck, skid steer, grader, and water truck. **Table 6** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in Table 6, equipment used for reservoir construction as previously discussed could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 6 – Construction Equipment Noise Emission Levels

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

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

Table 7 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 7 – Estimated Distance to dBA Contours from Construction Activities¹

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be between approximately 70 dBA and 75 dBA at the nearest existing offsite residence.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA for tractors (Toth 1979 and Napa County Baseline Date Report, Version 1, November 2005). This is the baseline level of noise at the project site due to the presence of vineyard in and around the development area. After development of the proposed project, the only potential source of noise from the proposed reservoir would be the operation of a pump station which is not expected to operate continuously. The Federal Highway Administration Construction Noise Handbook estimates that noise from pumps ranges from 77 to 81 dBA, 17 with lower horsepower pumps resulting in lower noise output. The potential noise level from the operation of the pump (77 to 81 dBA) is lower than the current ambient noise levels at the site (84 dBA).

¹⁷ Federal Highway Administration, 2017. Construction Noise Handbook.

https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

Table 8 – Estimated Distance to dBA Contours from Farming Activities¹

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

¹ Based on a source noise level of 84 dBA.

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

Based on distances to existing residences from the location of the sump (approximately 730 feet), it is anticipated that noise due to operation and maintenance agricultural activities would be between 50 and 55 dBA at the closest existing offsite residence.

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). The closest offsite residence is located approximately 200 feet southeast of the staging and stockpile area, and approximately 450 feet southeast of the reservoir construction area, where the majority of work would be conducted; as such, the closest residence would experience short-term construction noise levels between approximately 60 to 90 dBA for the duration of reservoir construction activities over the course of the 40-day construction period. These temporary noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less than significant impact on ambient noise levels of the area.

During site preparation and construction, the use of heavy equipment could result in a temporary increase in ambient noise levels in the vicinity of the development area 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 2 miles of a public, public-use, or private airport (Napa County Airport Land-use Compatibility Plan, 1991). The closest airfield, Angwin-Parret Airfield, is located approximately 3.5 miles away. Therefore, no impact would occur.

Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. POPULATION AND HOUSING. Would the project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

☐
☐
☐
☒

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

☐
☐
☐
☒

Discussion

- a. The proposed project involves earthmoving activities and the installation of a water storage reservoir that would store water for irrigation purposes. It does not involve the construction of new homes, businesses, roads, or infrastructure (e.g., potable water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of workers to the project site on a temporary basis, and ongoing operation of the reservoir would not generate new workers to the project site (any maintenance required would be expected to be conducted by those workers already visiting the site to farm the vineyards surrounding the development area). It is anticipated that these workers 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. The closest residences are on neighboring parcels to the east and west. Therefore, no impact would occur.

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

Discussion

- a. The proposed project does not include the construction of residential or commercial structures, as discussed in **Section XIV, Population and Housing**, resulting in no substantial population growth in the area. It is anticipated that these temporary workers would come from the existing labor pool in the local region and would not result in an increase in population over existing conditions. As a result, there would be no need to construct any new government facilities. Therefore, there would be no change in the demand for the listed services and amenities. No impact would occur.

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

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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. As part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

The County's General Plan Circulation Element contains a policy statement (Policy CIR-7) indicating that the County expects development projects to achieve a 15% reduction in project-generated VMT to avoid triggering a significant environmental impact. Specifically, the policy directs project applicants to identify feasible measures that would reduce their project's VMT and to estimate the amount of VMT reduction that could be expected from each measure. The policy states "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 (Napa County TIS Guidelines, 2022) 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, but it is also presumed to have a less-than-significant impact for VMT. However, applicants are encouraged to describe the measures they are taking and/or plan to take that would reduce the project’s trip generation and/or VMT. Projects that generate more than 110 net new passenger vehicle trips must conduct a VMT analysis and identify feasible strategies to reduce the project’s vehicular travel; if the feasible strategies would not reduce the project’s VMT by at least 15%, the conclusion would be that the project would cause a significant environmental impact.

- a-b. Currently, the project site includes vineyard, an access road, a residence, and two water storage tanks. The project site is accessed from an existing private driveway off Hardin Road. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent operation.

Trucks and other equipment would use County roads or State highways for short periods during construction. The proposed project is expected to generate between four (4) and ten (10) passenger vehicle round trips per day during construction, and approximately 14 truck trips for project mobilization and demobilization at the start and end of construction. Construction equipment is anticipated to include two scrapers, one excavator, two dozers (one D-8 and one D-6), one tractor, one compactor and one water truck at various times during the construction period. Construction of the reservoir would be completed within 40 days. After the reservoir is constructed, operational activities are anticipated to be minimal and would be conducted by the existing vineyard staff visiting the site to farm the vineyards that surround the proposed reservoir, and therefore there are no long-term traffic impacts associated with the operation of the proposed reservoir. 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. Because the proposed project would be expected to generate up to approximately ten daily round trips during construction and up to nine daily round trips for ongoing operations and maintenance, below the 110-trip threshold in the Office of Planning and Research guidelines and the County’s TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant. Further, operational trips are not anticipated to increase because of the project due to the existing vineyard on the property.

- c. The proposed project would utilize an existing access road off of the existing private driveway off Hardin Road for project development. The proposed project does not include roadway improvements and/or modifications to the existing driveway or Hardin Road or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the project site and other Agricultural Watershed zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or 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 (up to 10 vehicles) during the construction period, which would occur over 40 days. Current County ordinances do not require formal parking for agricultural projects. Parking within the proposed staging area, vineyard avenues and/or along the existing access road would satisfy parking demands of project installation and subsequent operations. Therefore, no parking impacts are anticipated.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Notice of the proposed project was sent to the Middletown Rancheria of Pomo Indians (Middletown Rancheria), Mishewal Wappo Tribe of Alexander Valley (Mishewal Wappo), and Yocha Dehe Wintun Nation on December 11, 2023. The County did not receive a response from any of the tribes. On May 6, 2024, the County sent AB-52 Consultation Invitation Closure letters to all three tribes. The County received a response letter from Yocha Dehe Wintun Nation (YDWN) on January 26, 2024, stating that the project is within the aboriginal territories of the YDWN, and therefore the Tribe has a cultural interest and authority in the proposed project and requested formal consultation. On April 26, 2024, the County held a consultation meeting with a YDWN representative, during which time the Tribe requested a monitoring agreement for cultural sensitivity training and incorporation of the Tribe's Burial Treatment Protocol.

On May 6, 2024, the County received telephone correspondence from the Middletown Rancheria, during which the Tribe stated that the project area is within their cultural heritage territory and that the Tribe wished to consult on the project and requested a site visit. On May 16, 2024, the County met with the Tribal Representative and the project proponent to observe the site, after which time the Tribe provided direction that they be included with YDWN in cultural sensitivity training and Burial Treatment Protocol. The direction from both Tribes has been incorporated into Section XVIII, Tribal Cultural Resources. The County did not receive correspondence from the Mishewal Wappo Tribe following the Consultation Invitation Closure letter, and therefore considers consultation closed with that Tribe.

a-b. As discussed in **Section V, Cultural Resources**, no cultural resources have been identified within the development area. Furthermore, no resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified or are anticipated in the development area. The Cultural Resources conditions of approval discussed in **Section V, Cultural Resources**, would avoid and reduce potential impacts to unknown resources.

Due to the possibility of unearthing tribal cultural resources which include, but is not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes or objects with cultural values to the Middletown Rancheria ("Tribe"), implementation of the project as proposed would result in potentially significant impacts on Tribal Cultural Resources. Implementation of **Mitigation Measure TCR-1** (Middletown Rancheria) and **Mitigation Measure TCR-2** (Yocha Dehe Wintun Nation) would require cultural sensitivity training for all project personnel, and that tribal monitoring take place on a fulltime basis during all earth-moving activities by a qualified Tribal Cultural Advisor as defined by the Tribe, and that any potential cultural resources unearthed are treated appropriately as determined by the Tribe. Implementation of **Mitigation Measures TCR-1** and **TCR-2** would reduce potentially significant impacts related to tribal cultural resources to a less than significant level.

Mitigation Measure TCR-1: Prior to project approval, the Owner/Permittee shall revise the Water Storage Reservoir Grading Permit #ENG21-00013 to include the following measures to minimize the potential to impact Tribal Cultural Resources (Middletown Rancheria):

- a. Prior to commencement of earthmoving activities, the Owner/Permittee shall retain a project Tribal Cultural Advisor designated by the Middletown Rancheria ("Tribe"), to direct all mitigation measures related to tribal cultural resources, as detailed below.

- b. Ground disturbing activities occurring in conjunction with the Project (including surveys, testing, concrete pilings, debris removal, rescapes, punch lists, erosion control (mulching, waddles, hydroseeding, etc.), pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area) shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that fulltime monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spot-checking or cease entirely. Tribal monitoring would be reinstated in the event of any new or unforeseen ground disturbances or discoveries.
- b. The project Tribal Cultural Advisor and tribal monitor(s) may halt earthmoving activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be at minimum one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and applicant. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and applicant. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.
- c. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project applicant will coordinate with the Tribe on the cultural resource sensitivity training.
- d. The Owner/Permittee shall meet and confer with the Tribe, at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project applicant to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project applicant must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.
- e. Should the Owner/Permittee be unsuccessful in engaging with the Middletown Rancheria within 45 days of initial request, 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 Measure TCR-2: Prior to project approval, the Owner/Permittee shall revise the Water Storage Reservoir Grading Permit #ENG21-00013 to include the following measures to minimize the potential to impact Tribal Cultural Resources (Yocha Dehe Wintun Nation):

- 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 #ENG21-00013, the Owner/Permittee shall provide documentation to Napa County Conservation PBES Division 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.

As such, the proposed project, with incorporation of Mitigation Measures TCR-1 and TCR-2 and the Cultural Resources conditions of approval, the project would result in less than significant impacts to Tribal Cultural Resources, including those that may be eligible for the California Historical Resources Information System or local register or cultural resources as defined in Public Resources Code Section 5024.1(c).

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

Discussion

- a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and ongoing maintenance would not generate new workers. It is anticipated that these workers 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, nor would it generate wastewater. The proposed project would subsurface water collected from existing drain tiles in the adjacent vineyard.

The proposed project also would not include the any new or expanded subsurface drainage features or surface stormwater infrastructure, nor would it connect to public stormwater drainage systems. No natural gas, electric, or telecommunication facilities would be required or relocated as a result of the proposed project and therefore this impact is less than significant.

- b. The proposed reservoir would be filled by existing drain tiles in the existing vineyard located on the parcel. Water from the reservoir would be required on a temporary basis to irrigate the Valley oak tree replant area (114 trees) in the first three (3) to five (5) years, at a maximum of approximately one to three gallons per tree per week within the annual irrigation season (i.e., late April through mid-October) in the first year, followed by the same amount every two weeks within the typical annual irrigation season in the following two to four years (**Exhibit B-2**). Less than significant impacts are anticipated.

- c. Given the small number of workers that the proposed project would generate for construction and operation, wastewater generation by the proposed project would not be substantial enough to affect wastewater treatment capacity. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.
- d-e. Solid waste generated during construction activities (e.g., trash, discarded building materials, debris, etc.) would be negligible and would be cleared daily, or as necessary. The operation of the proposed reservoir is not expected to generate any solid waste. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

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

Discussion

The project site is located in a State Protection Responsibility Area and is predominantly in the “very high” fire hazard severity zone (CalFire, 2022; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone). Elevations within the development area range from 590 feet to 610 feet above mean sea level and slopes range from 5% to 15% (**Exhibit A**).

- a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site. Therefore, the proposed project would not impact an adopted emergency response plan or emergency evacuation plan. Refer to **Section IX, Hazards and Hazardous Materials**, for additional discussion related to emergency access.
- b-c. Project construction would require the use of vehicles and heavy equipment for grading activities, and these vehicles and equipment could spark and ignite vegetation. During construction, the risk of igniting a fire would be low because any remaining vegetation would be cleared prior to developing the reservoir, and the risk would be temporary during construction. Operation of the reservoir would not include any activities that have the potential to increase fire risk. The construction and operation of a reservoir do not have an inherent risk of fire. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires, and this impact would be less than significant.

- d. Although the proposed project would alter land cover from existing ruderal grassland to proposed reservoir, temporary erosion control measures would be implemented for the proposed project which would reduce the impact of stormwater runoff or drainage changes being discharged on- or offsite. The proposed reservoir is not under the California Department of Water Resources, Division of Safety of Dams (DSOD) jurisdiction. As discussed in **Section VII, Geology and Soils**, subsection c, the development area is not in an area prone to landslides, ground failure, liquefaction, or other areas of potential soil instability. PJC & Associates conducted a slope stability analysis as part of the Geotechnical Investigation (**Exhibit C**) and incorporated the design parameters to ensure the proposed reservoir would not be impacted by or cause impacts to slope instability. Therefore, the proposed project would not result in any significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse and this impact is less than significant.

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

Discussion

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

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

Because the project is located in a ruderal / disturbed grassland, it would not disturb native habitats or vegetation, and would have less than significant impacts on biological resources. The project would result in a beneficial impact to biological resources following implementation of the Valley oak tree replanting program over approximately two (2) acres. No trees would be removed, and the adjacent Valley oak trees would be protected from development activity, and, with implementation of **Mitigation Measure BR-1**, would result in less than significant impacts on nesting birds (see **Section IV, Biological Resources**, for further discussion). There are no aquatic resources on or adjacent to the site. The development area consists of disturbed non-native grassland that is regularly mowed, which precludes the presence of special-status plants. The proposed project would not significantly impact wildlife movement corridors, and the parcel does not provide significant opportunities for wildlife movement in its existing condition. No new fencing is proposed, with the exception of fencing at the top of embankment to deter wildlife entrapment. As such, the proposed project would not introduce any new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant. With incorporation of **Mitigation Measure TRC-1** and **Mitigation Measure TRC-2**, as well as standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (Section V [Cultural Resources]). Therefore, the proposed project as designed with the incorporation of identified conditions of approval, would have a less than significant potential to degrade the quality of the environment..

The project site is located partially within the Maxwell Creek-Upper Reach Drainage of the Putah River Watershed. The Maxwell-Creek Upper Reach drainage is about 5,239 acres and is currently 3.08% converted to vineyard (approximately 252 acres), in addition to pasture land and open space. There are reservoirs scattered throughout the watersheds that support these existing agricultural operations. It is not possible to precisely quantify the acreage and location of additional reservoirs that may be proposed by property owners in these drainages in the future, but it is assumed that new proposed reservoirs may be required in or adjacent to these existing vineyards as water resources become more regulated, dry- and wet-year rainfall patterns become more extreme in the future, and it becomes more imperative to store water when it is available.

While no significant impacts have been identified as a result of the proposed project, conditions of approval in the following sections would further reduce the potential for negative environmental impacts and therefore the following sections receive additional consideration in the cumulative context:

Air Quality and GHG - Sections III and VIII:

The proposed project (#ENG21-00013) includes minimal vegetation removal and installation of a proposed reservoir concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended 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 1** (BAAQMD Thresholds of Significance Emissions for Construction and Operation) criteria pollutant emissions associated with development and operation 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 grassland and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 3 and 4**). As discussed in **Section VIII, Greenhouse Gas Emissions**, the proposed project is not anticipated to result in substantial or significant GHG emissions, and includes grassed embankments and the replant of 114 trees within a 2-acre area, which would off-set potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:

A project-specific Biological Resources Reconnaissance Survey (Kjeldsen, 2022 - **Exhibit B-1**) was prepared 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 surveys included database records searches to identify the presence or potential presence of special-status species within the project area. The database records searches included the CNDDDB, CNPS, and Napa County databases. No special-status plant species are present within the development area and no special-status/protected animal species have the potential to occur within the project site. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats. The project would include a Valley oak restoration plan (Kjeldsen, 2023 – **Exhibit B-2**), which would plant 114 trees over 2 acres on the parcel, which would improve the habitat on the parcel compared to the existing non-native grassland habitat.

Cultural and Tribal Cultural Resources – Sections V and XVIII:

A cultural resource reconnaissance survey (Flaherty Cultural Resource Services, 2021) of the area identified no cultural resources in the development area. There is a possibility of unearthing tribal cultural resources that may include human remains. With implementation of **Mitigation Measures TCR-1 and TCR-2**, project development activities would commence after cultural sensitivity trainings and activities would be monitored by members of the Middletown Rancheria and the Yocha Dehe Wintun Nation, with any findings handled according to the respective tribes' treatment protocols. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidentally, and with implementation of **Mitigation Measures TRC-1 and TRC-2**, less than significant project-specific and cumulative impacts to cultural and tribal cultural resources are expected (see **Section V, Cultural Resources**, and **Section XVII, Tribal Cultural Resources**).

Geology and Soils - Section VII:

The conversion of existing ruderal grassland to reservoir is not expected to increase soil loss. Temporary and permanent erosion control measures have been included in the project design (**Exhibit A**) to ensure there is no increased risk of erosion, and a site-specific Geotechnical Investigation (**Exhibit C**) was conducted to ensure the proposed reservoir was adequately designed with all necessary safety factors. Because the proposed project would have a less than significant impact on erosion, soil loss, or slope stability, the proposed project is not anticipated to contribute cumulatively to sediment production or stability issues within the Maxwell Creek Drainage of the Putah River watershed. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hazards and Hazardous Materials - Section IX:

The proposed project would implement the identified hazardous materials conditions of approval. Impacts associated with the use, storage, and transport of hazardous materials and accidental release of hazardous materials would be less than significant and no cumulative impacts would occur.

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

Land Use and Planning - Section XI:

As discussed in Section XI (Land Use and Planning), the proposed project, with implementation of the 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]). The proposed project would not conflict with the any applicable land use plan, policies, or regulation as designed and conditioned.

Proposed Project Areas Found to Have No Significant Impacts

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to have no impact with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Hydrology and Water Quality, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire.

There would be no new lighting associated with the proposed project. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project would not result in wasteful, inefficient, or unnecessary energy use, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets. The proposed project would not increase stormwater runoff and would not have a negative impact on water quality. 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 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 and would not adversely impact current or future public services. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

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

- 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 project site, and reasonably foreseeable projects would be activities at a level of intensity considered normal and reasonable for a property within an Agricultural Watershed zoning district. Therefore, less than significant impacts on human beings are anticipated.

LIST OF FIGURES:

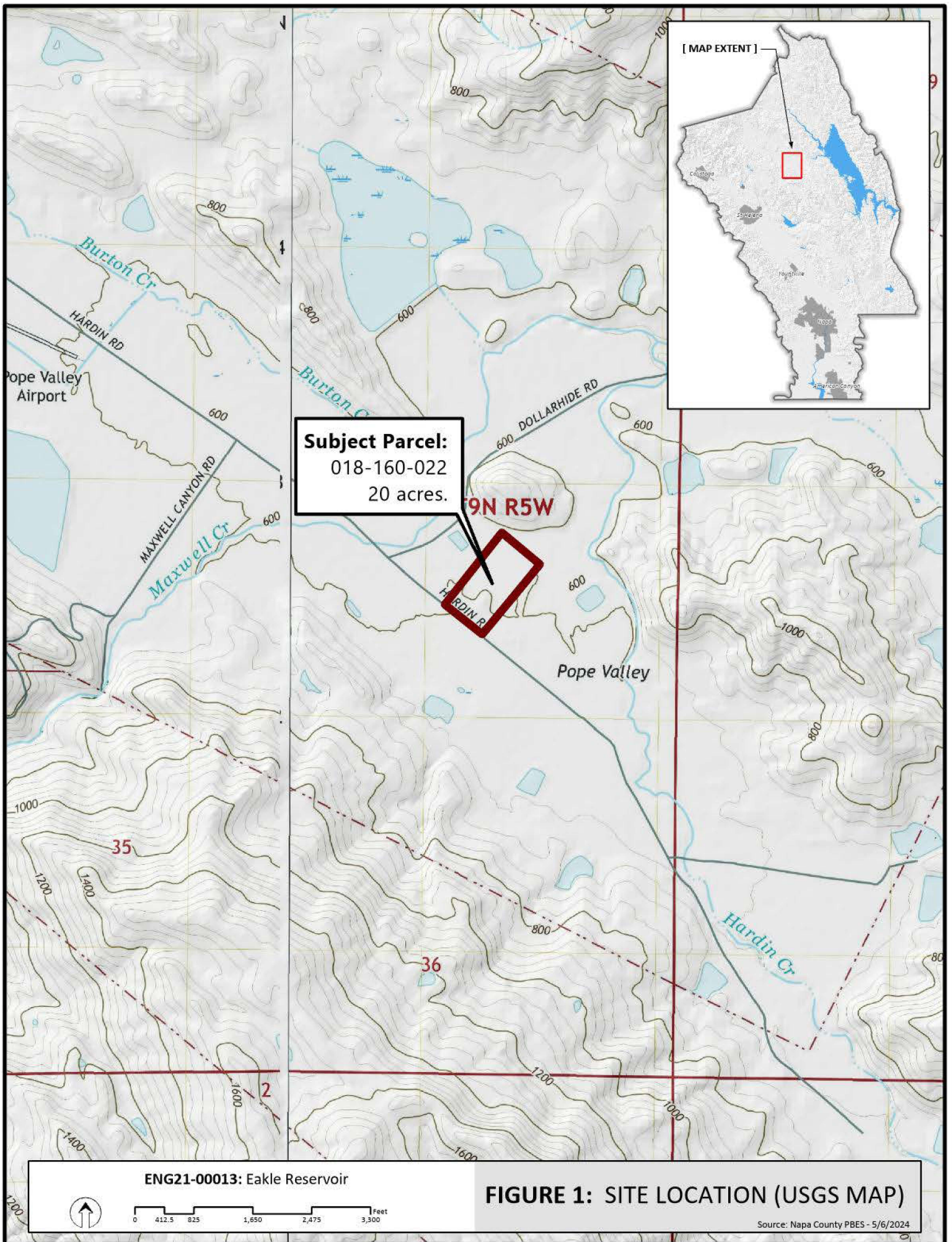
Figure 1	Site Location Map (USGS)
Figure 2	Site Location Map (Aerial)
Figure 3	Project Area (Aerial)

LIST OF TABLES:

Table 1	BAAQMD Thresholds of Significance for Construction and Operation
Table 2	Emissions from Vineyard Development and Operation
Table 3	Estimated Development Area Carbon Stocks/Storage
Table 4	Estimated Project Carbon Emission Due to Vegetation Removal
Table 5	Estimated Overall Project-Related GHG Emissions.
Table 6	Construction Equipment Noise Emission Levels
Table 7	Estimated Distance to dBA Contours from Construction Activities

LIST OF EXHIBITS:

Exhibit A	Reservoir Grading Plans #ENG21-00013
Exhibit B-1	Biological Resource Assessment
Exhibit B-2	Revegetation Plan
Exhibit C	Geotechnical Investigation
Exhibit D	Hydrology Analysis
Exhibit E	Application Submittal Materials and Correspondence
Exhibit F	Project Revision Statement





ENG21-00013: Eakle Reservoir




0 55 110 220 330 440 Feet

FIGURE 2: SITE LOCATION (2022 AERIAL)

Source: Napa County PBES - 5/6/2024



LEGEND

 Limits of Disturbance

ENG21-00013: Eakle Reservoir



0 25 50 100 150 200 Feet

FIGURE 3: PROJECT AREA (2022 AERIAL)

Source: Napa County PBES - 5/6/2024