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

Initial Study Checklist
(form updated January 2019)

1. **Project Title**: Constellation Brands Inc. 2155 Ramal Road Water Storage Reservoir, Grading Permit Application #ENG23-00002

2. **Property Owner:** Constellation Brands Inc.

3. **County Contact Person, Phone Number and Email:** Pamela Arifian, Planner III, (707) 259-5934, Pamela.Arifian@countyofnapa.org

4. **Project Location and APN:** 2155 Ramal Road, Napa, CA 94558, Assessor's Parcel Number (APN) 047-271-002 (**Figures 1** and **2**)

5. **Project Sponsor:** Harinder Dhaliwal
Constellation Brands Inc.
P.O. Box 106
Oakville, CA 94562

Agent: Matthew Bueno (RPE No. 84114)
PPI Engineering
2800 Jefferson Street
Napa, CA 94558

6. **General Plan Description:** Agriculture, Watershed & Open Space (AWOS)

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

8. **Background/Project History:** The subject property contains approximately 188 acres of existing vineyard that is currently irrigated with existing surface water via Water Right License 11612 (Permit 15849). The subject property is covered under a Williamson Act Contract (Type H). The purpose of the proposed agricultural water storage reservoir is to store recycled water from the Napa Sanitation District to irrigate the existing vineyards and provide operational flexibility while minimizing the reliance upon surface water.

9. **Description of Project:** The proposed project involves grading and the construction of an approximately 75-acre-foot (AF) offstream agricultural water storage reservoir that would store reclaimed water from Napa Sanitation District. The footprint of the proposed reservoir is approximately 6.5 acres (i.e., project site, development area), see **Figure 3** and **Exhibit A**. The proposed reservoir would be constructed of compacted native material and would be lined with a synthetic liner. The proposed reservoir would be developed within an existing fallow vineyard area that was removed under Track II Erosion Control Plan (ECP) #P20-00169-ECPA; no native vegetation would be removed or disturbed and no trees would be removed. The development area maintains required setbacks from blueline streams and property lines, and is located outside of the Federal Emergency Management Area (FEMA) flood zones.

   A Water Purchase Agreement has been obtained from Napa Sanitation District (see agreement dated August 1, 2022; **Exhibit B**). The proposed recycled water pipeline will be located in an existing pasture used for cattle grazing and fallow vineyard; for approximately 500 feet it will be directionally drilled below Huichica Creek. All necessary permits and permissions for the pipeline have been obtained.[1] A pump station will be designed and installed by others (reference Note 13 on Sheet 1 of **Exhibit A**) and any necessary permits for the pump station will be obtained from Napa County prior to installation. The proposed project is therefore limited in scope to only the grading permit that will be required to construct the proposed reservoir. As necessary, the recycled water pipeline and the pump station will be discussed in this document for context, but neither are subject to County jurisdiction or approvals via this grading permit application.

   Earthmoving: Earthmoving and grading activities associated with construction of the proposed reservoir are detailed in the Grading Plans prepared by PPI Engineering dated April 2023 (**Exhibit A**). Earthwork would be balanced onsite with no offsite hauling; there would be approximately 65,000 cubic yards of cut and 65,000 cubic yards of fill (±55,000 cubic yards of structural fill and accounting for ±10,000 cubic yards of shrinkage).

[1] California Department of Fish and Wildlife, Notification of Streambed Alteration, October 11, 2022; California Department of Water Resources, Division of Safety of Dams, March 21, 2023; Napa Sanitation District, Permit RAWTL-000191, August 8, 2022 – Exhibit G

Construction would require approximately 25 truck trips for project mobilization and demobilization for equipment and materials delivery and pickup. Up to 10 passenger vehicle round trips per day would occur during construction. Construction equipment is anticipated to include a crawler tractor (D-8), two scrapers, a compactor, one excavator, dump truck, skid steer, grader, and 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. Straw wattles shall be installed as shown on the Plans. 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 #2 49C400270 (**Exhibit D**).

10. **Describe the environmental setting and surrounding land uses.** The proposed project would occur on an approximate 258.11-acre parcel located at 2155 Ramal Road in Napa, CA, Assessor's Parcel Number (APN) 047-271-002 (**Figures 1 – 3** and **Exhibit A**). The project parcel is located in the rolling hills of the Carneros region, approximately 4.5 miles southwest of the City of Napa and within the Napa River Marshes – West and the Huichica Creek watersheds. Huichica Creek is located approximately 1,400 feet east of the proposed reservoir and an unnamed blueline stream is located to the west of the development area; setbacks from the blueline streams have been maintained in accordance with Napa County Code (NCC) Section 18.108.025. Huichica Creek and the unnamed blueline stream drain to the Napa River Marshes approximately 1 mile south of the project parcel.

    Land uses within the vicinity of the project parcel predominantly consist of scattered agricultural uses (vineyards, livestock grazing, and wineries) and rural residential. The nearest school (Irene M. Snow Elementary) is located approximately 4.5 miles northeast within the City of Napa. The nearest residence is approximately 800 feet north of the project site.

    General topography of the area consists of rolling hills of the Carneros region. General topography of the project parcel is relatively gently sloped, with elevations ranging from 25 to 250 feet above mean sea level. The nearest mapped faults are the West Napa Fault located approximately 2.5 miles west of the project parcel. Soils within the project area, as classified in the United Stated Department of Agriculture Soil Conservation Service's Napa County Soil Survey (USDA, Soil Survey of Napa County, 1978) consist of Diablo Clay, 2-9% slopes and Diablo Clay, 9-15% slopes.

    The vegetation types of the area generally consist of agriculture (vineyard) interspersed with seasonal drainages and wetlands, and residential development. Very few natural habitats or open grasslands remain in the vicinity. The project parcel is entirely developed to vineyard with one open field retained as pasture for cattle, sheep, and goats.

11. **Other agencies whose approval is 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	**Other Agencies Contacted**
California Department of Fish and Wildlife (T)	Middletown Rancheria
Regional Water Quality Control Board (Regional Water Board) (R)	Mishewal Wappo Tribe of Alexander Valley
Napa Sanitation District (R)	Yocha Dehe Wintun Nation

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

    Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on March 13, 2023.

    The County received a response letter from Yocha Dehe Wintun Nation on April 5, 2023, stating that the project is not within the aboriginal territories of the Tribe, and that the Tribe declined any comment on the project. On April 13, 2023, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation. No further communication was received within the 30-day notification period from the tribes from whom consultation was requested. The County sent consultation closure notices to Yocha Dehe Wintun Nation, Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on May 5, 2023.

    Also, see **Section XVIII (Tribal Cultural Resources)** for additional disclosures and discussion.

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.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ 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, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with ENG23-00002 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 at: https://pbes.cloud/index.php/s/ejboFYGjRWcsDq9

- PPI Engineering, Revised April 2023, Reservoir Grading Plans, 2155 Ramal Road Water Storage Reservoir (**Exhibit A**)
- Water Services Agreement, NapaSan, August 1, 2022 (**Exhibit B**)
- WRA, Inc., March 29, 2023, Biological Analysis for Proposed Agricultural Reservoir for 2155 Duhig Road, Napa County, California (APN: 047-271-002) (**Exhibit C**)
- SWPPP Solutions, Inc., Carneros Vista Reservoir Stormwater Pollution Prevention Plan, January 24, 2023, WDID #2 49C400270 (**Exhibit D**)
- PJC & Associates, Inc., October 28, 2022, Geotechnical Investigation for Proposed Carneros Vista Reservoir (**Exhibit E-1**)
- PJC & Associates, Inc., February 3, 2023, Geotechnical Plan Review for Proposed Water Storage Reservoir (**Exhibit E-2**)
- PPI Engineering, April 11, 2023, HydroCAD for Reservoir Overflow, and NOAA Atlas 14, Volume 6, Version 2 Point Precipitation Frequency Estimates dated January 10, 2023 (**Exhibit F**)
- Fredrickson, David A., October 10, 1975, An Archeological Resource Reconnaissance of Ramal Road, Sonoma and Napa Counties, California; Survey S-186
- Application Submittal Materials and Correspondence (**Exhibit G**)
- Napa County Geographic Information System (GIS) sensitivity maps/layers

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a *(SUBSEQUENT)* NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A *(SUBSEQUENT)* MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Pamela Arifian _____ 6/6/2023 _____

Signature Date

Name: Pamela Arifian, Planner III
Napa County
Planning, Building and Environmental Services Department

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

Discussion:

a-b. The project site is over 1.7 miles south from the nearest County viewshed road (Highway 12), and is not located within a scenic corridor (Napa County GIS, Scenic Corridors Layer). 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 closest State Highway is Highway 12/121 (Caltrans 2015[2]) which is approximately 1.7 miles north of the development area, and the project site is not visible from this state highway. 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 an area that was previously planted with vineyards. Vineyards and a reservoir surround the project site and 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.

[2] https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf

II.	AGRICULTURE AND FOREST RESOURCES.[3] Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion:

a. The 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 Statewide Importance and Prime Farmland, however 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. There is a Type H Williamson Act contract on the project parcel; the proposed project would not be in conflict with the provisions of the Williamson Act contract, resulting in no impact.

c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." The project site does not contain forest land or coniferous forest (Napa County GIS). 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 recycled water storage 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.

[3] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

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

Discussion:

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

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

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

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

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

a-b. The project site is generally situated in the rolling hills of the Carneros region at the southern end of the Mayacamas Mountains, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of the BAAQMD. The topographical and meteorological features of the Napa Valley Subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, and vehicular haul and worker trips. During construction, there would be five workers visiting the project site on a temporary basis to construct the proposed reservoir; refer to **Section XVII (Transportation)** for additional discussion of the anticipated number of construction-related trips.

In the long-term, potential air quality impacts would 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

surround the development area.

The impacts associated with implementation of the proposed project were evaluated consistent with guidance provided by BAAQMD. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O_3); ozone precursors, oxides of nitrogen and reactive organic gases (NO_X and ROG, respectively); carbon monoxide (CO); nitrogen dioxide (NO_2); and suspended PM of ten micrometers or less and two and a half micrometers or less (PM_{10} and $PM_{2.5}$, respectively). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO_2), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

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

The thresholds of significance identified in **Table 1** are consistent with the BAAQMD CEQA Guidelines, and are used to determine if an air quality impact would be significant.

In order to assess potential air quality and GHG emissions, a review of the emissions analysis associated with recent and nearby vineyard development performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards[4] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[5] for an approximately 507-acre vineyard development, and Circle S Ranch Vineyards[6] for an approximately 400-acre vineyard development.[7] The proposed project is the construction of an agricultural water storage reservoir and not for the development of proposed vineyards. 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.

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

Table 1 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above, which as described above include grading components (e.g., sediment basins and reservoir spillway repairs) similar to the proposed reservoir project. Also shown in **Table 1** are the BAAQMD CEQA Guidelines thresholds of significance for emission of the following criteria pollutants: ROG, NOx, $PM_{2.5}$, and PM_{10}.

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

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

[5] #P11-00205-ECPA, AES March 2016, SCH #2008052075 certified August 1, 2016

[6] #P06-01508-ECPA, AES April 2011, SCH #2007062069 certified December 22, 2011

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

Table 1 – Emissions from Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO_X	PM2.5	PM10
	Construction Emissions			
Pounds per day: 150-acre vineyard development[1]	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to 14.53
Pounds per day: 150- to 250-acre vineyard development[2]	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development[3,4]	4.6	42.3	5.21	24.21
Construction Threshold	54	54	54	82
	Operational Emissions			
Pounds per day: 400-acre vineyard development[1]	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard development[2]	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard development[3,4]	4.3	22.3	1.4	2.3
Operational threshold (pounds per day)	54	54	54	82
Tons per year (Metric)[1,5]	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

[1] As identified in the Circle S EIR; [2] As identified in the Suscol Mountain EIR; [3] As identified in the Walt Ranch EIR; [4] Includes dust and exhaust emissions; [5] Calculation based on 365 days of operation.

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

Because the proposed project's 6.5 acres of land disturbance is smaller than any of the projects presented above, construction emissions from the proposed project that could negatively affect air quality are expected to be significantly less than those identified in **Table 1** 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 pump station 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. The new pump station emissions would also be offset by decreased use of the existing pump station located at the nearby freshwater reservoir associated with the property's surface water right. 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.

Air Quality – Conditions of Approval:

The owner/permittee shall implement the following air quality BMPs during construction activities:

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

registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[8] or the PERP website.[9]

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 1** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less-than-significant air quality impacts, and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

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

Land uses adjacent to the development area include primarily vineyards and scattered rural residences. The closest school (Irene M. Snow Elementary) is located approximately 4.5 miles northeast in the City of Napa. The nearest offsite residence is located approximately 800 feet from the development area. The closest residential area is located approximately 3.5 miles northwest of the development area; the City of Napa is located approximately 4.5 miles northeast of the development area.

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 4.5 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.

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

[8] https://ww2.arb.ca.gov/sites/default/files/2020-01/PERP_FAQ%20.pdf
[9] http://www.arb.ca.gov/portable/portable.htm

f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

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

- WRA, Inc., March 29, 2023, Biological Analysis for Proposed Agricultural Reservoir for 2155 Duhig Road, Napa County, California (APN: 047-271-002) (**Exhibit C**)
- Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos

The approximately 6.5-acre reservoir site is located entirely within area that has been planted to vineyard since at least 1982.[10] The development area was planted to vineyard in the County's 1993 aerial photograph. The proposed reservoir would be developed within an existing fallow vineyard area that was removed under Track II Erosion Control Plan (ECP) #P20-00169-ECPA; no native vegetation would be removed or disturbed and no trees would be removed.

WRA, Inc. conducted an assessment of biological resources within the proposed reservoir site on March 24, 2023. 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 WRA letter report (**Exhibit C**) provides pertinent background information and is discussed herein.

The habitat type within the development area is shown in **Table 2** and in **Exhibit C**. Because vineyards are considered developed area and not native habitat type, the proposed project would not impact any native biological community. There is an unnamed mapped blueline stream approximately 55 feet west of the development area; the blueline stream is more accurately described as a wetland swale as it does not contain bed or banks or riparian habitat (**Exhibit C**).

Table 2 – Biological Communities within the Project Site

Biological Community or Habitat Type	Approximate Pre-Project Conditions (acres)	Approximate Acreage in the Development Area
Developed Area / Agriculture	6.5 acres	6.5 acres

Source: Napa County GIS Vegetation Layer, 2019

a. Special Status Plants: Database searches (i.e. CNDDB, CNPS) for special-status species focused on the Sonoma, Napa, Mt. George, Sears Point, Cuttings Wharf, Cordelia, Petaluma Point, Mare Island, and Benicia USGS 7.5-minute quadrangles. A total of 65 special-status plant species have been documented within those nine USGS 7.5-minute quadrangles; nine special-status plants have the potential to occur in the vicinity but would be limited to the seasonal wetland swale (blueline stream). As stated in **Exhibit C** (WRA, March 2023), no special-status plants have the potential to occur within the development area due to the disturbed nature of the site and the minimum 55-foot buffer would be sufficient to protect the seasonal wetland swale and the special-status plants it supports.

Per the CNDDB, a population of soft salty bird's-beak (*Chloropyron molle ssp. molle*; federally endangered) was previously mapped in 1993 approximately 0.1 mile south of the development area within the Napa-Sonoma Marshes Wildlife Area; this plant requires marshes and swamps (coastal salt) habitat from 0 to 10 feet above mean sea level, which is not present within the development area.[11] A population of two-fork clover (*Trifolium amoenum*) was previously mapped in 1987 less than 1 mile east of the development area, also within the Napa-Sonoma Marshes Wildlife Area; this plant is now presumed extirpated from Napa County. Its general habitat includes coastal bluff scrub and valley and foothill grasslands, and would be precluded from occurring within the development area due to the actively farmed nature of the site.[12]

Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is

[10] Historic Aerial Imagery available at: https://www.historicaerials.com/viewer

[11] California Native Plant Society (CNPS) Rare Plant Inventory, 2023. Soft Salty Bird's-beak. https://rareplants.cnps.org/Plants/Details/177

[12] California Native Plant Society (CNPS) Rare Plant Inventory, 2023. Two-fork Clover. https://rareplants.cnps.org/Plants/Details/1526

encouraged by Napa County General Plan Goal CON-3.[13] Additionally, pursuant to Napa County General Plan Policy CON-13,[14] 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-17[15] 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.

Special-Status Animals: A total of 60 special-status wildlife species have been documented in Napa County. Only one has the potential to occur within the nearby seasonal wetland swale, the vernal pool fairy shrimp (*Branchinecta lynchi*), although it was not observed at the time of the biological survey. The minimum 55-foot buffer between the swale and the development area would be sufficient to protect the shrimp, if it were to be present.

Non-status and special-status birds may forage in or around the development area but nesting structures (e.g., trees, shrubs) are lacking, and annual spring mowing/tilling precludes the opportunity for these organisms to nest in the proposed development area. Likewise, there are no structures (e.g., trees, buildings) to provide maternity roosts for special-status bats. The annual mowing and tilling preclude the opportunity for fossorial wildlife (e.g., American badger (*Taxidea taxus*), western pond turtle (*Emy marmorata*)), as well as ground nesting non-status and special-status birds. The seasonal wetland swale does not contain perennial or immediate flows to support fishes or perennial dependent aquatic organisms (e.g., California freshwater shrimp (*Syncaris pacifica*) (**Exhibit C**).

Several special-status birds and non-status nesting birds may occur in the vicinity, although the closest trees and riparian habitat are along Huichia Creek located approximately 1,400 feet east of the development area. The unnamed blueline stream does not contain riparian habitat or defined vertical cutbanks; the nearest location of such habitat features may be Huichica Creek located approximately 1,400 feet from the project site. There is no tree canopy within 500 feet of the project site and the nearest isolated trees are approximately 150 to 310 feet north of the project site on a neighboring property along an existing reservoir; because the project site is surrounded by vineyards, there are no trees in the immediate vicinity that would provide nesting habitat for other non-special-status bird species and there is no potential roosting habitat for bats in the vicinity (**Exhibit C**). There are no potential impacts to nesting birds as a result of the proposed project.

Due to the proposed project being located in an area that is already developed/disturbed, potential impacts to special-status plants and wildlife are less than significant.

b-c. The project parcel contains two blueline streams. The smaller unnamed drainage is located west of the proposed development area and may be better classified as a wetland swale (**Exhibit C**); minimum 55-foot setbacks have been maintained from this stream in exceedance of Napa County Code (NCC) Section 18.108.025 which requires minimum 50-foot wetland setbacks. This drainage contains no trees or riparian habitat. Huichica Creek is located approximately 1,400 feet east of the development area and would not be impacted by the proposed project. Huichica Creek and the unnamed blueline stream are considered sensitive aquatic resources and are likely jurisdictional under Section 404/401 of the Clean Water Act (CWA) and Section 1602 of the California Fish and Game Code. The proposed project includes minimum 55-foot setbacks from the blueline streams as required by NCC Section 18.108.025. Furthermore, in addition to the erosion control features described in the Grading Plans (**Exhibit A**), the proposed development is covered by a Stormwater Pollution Prevention Plan (SWPPP)

[13] 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.

[14] 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.

[15] 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.

(WDID #2 49C400270) (**Exhibit D**) to ensure that construction would not result in any impacts to water quality. The development area is located entirely within developed upland areas that are fallow vineyard. Implementation of the standard condition of approval for stream protection, below, would ensure that the stream is protected from construction and subsequent vineyard operations. Therefore, the proposed project would not result in a significant impact to drainages or other sensitive aquatic resources.

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

- The location of stream setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Conservation Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation, outside of the proposed project activities areas. The protection fencing shall remain in place for the duration of project implementation.

- All construction and related traffic will remain outside of the protective fencing on the existing road to the maximum extent practicable to ensure that the stream, buffer zones, and associated woodland habitat remains undisturbed.

d. The proposed project involves the construction of an offstream agricultural water storage reservoir that is located in an area previously planted to vineyard and that is entirely surrounded by vineyard. There is no wildlife exclusionary fencing associated with the proposed project. Per Note 5 on Sheet 1 of the Grading Plans (**Exhibit A**), a fence will be installed along the top of the reservoir embankment along with warning signage to prevent humans (and other large wildlife, if present) from falling into the reservoir and becoming trapped. 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. Due primarily to the highly developed nature of the project site and vicinity, there is minimal opportunity for larger wildlife movement in the area; smaller wildlife would be expected to move unimpeded through the vineyards and drainages in the vicinity. 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 Huichica 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 recycled water (**Exhibit B**), resulting in no impacts to fish species. There would be no impacts to wildlife movement, habitat use, and availability.

e. 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)[16] 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. There are no trees within the development area and it has been mapped as developed/agricultural (**Exhibit C**); oak woodland habitat was not identified in the project area or on the parcel. Therefore, no impacts would result with regard to consistency with General Plan policies protecting oak woodlands.

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[17] 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%

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

[17] NCC Section 18.108.030 defines "vegetation canopy cover" as "the biotic communities classified as oak woodland, riparian oak woodland, or coniferous forest based on the current Manual of California Vegetation (MCV) and as described in the Napa County Baseline Data Report (2005 or as amended)."

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.

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

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

Discussion:

See **Section XVIII (Tribal Cultural Resources)** for disclosures 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:

- Fredrickson, David A., October 10, 1975, An Archeological Resource Reconnaissance of Ramal Road, Sonoma and Napa Counties, California; Survey S-186.

The Archeological Resource Reconnaissance was conducted at the request of the State Water Resources Control Board in support of Water Right License 11612 (Permit 15849) and the study area of the report was approximately 275 acres that included the area of the currently proposed reservoir. This Archeological Resource Reconnaissance included both a record search at the archeological files of the Anthropology Laboratory at the California State College, Sonoma, and extensive field survey to locate any visible signs of potentially significant historic or prehistoric cultural deposits. This study did not identify any cultural resources during the time of the survey, and the development area has been actively farmed as vineyard for the last almost 50 years since the date of the investigation.

a-b. The Archeological Resources Reconnaissance study (Fredrickson, 1975) did not identify any cultural resources within the development area. Although cultural resources were not found within the development area, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, the proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidently. This accidental discovery measure has also been included in the project Grading Plans; reference Note 9 on Sheet 1 of the plans (**Exhibit A**). This impact is considered to be less than significant.

c. The Archeological Resources Reconnaissance study did not locate any human remains in the proposed development area and does not anticipate the discovery of human remains due to implementation of the proposed project. Therefore, impacts on human remains are anticipated to be less than significant. Furthermore, the following condition of approval would be incorporated should the proposed project be approved, which would ensure that potential impacts on human remains would be less than significant.

Cultural Resources – 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.

VI.	**ENERGY.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Result in potentially significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion:

Consistent with Public Resources Code Section 21100(b)(3), this impact analysis evaluates the potential for the 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 during one grading season (April 1 to October 15) and would be estimated to require no more than 2 months during the summer season. 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, equipment use would be slightly lower than existing levels because the area would be converted from 6.5 acres of actively farmed vineyard to an agricultural reservoir, and the 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. A pump would be installed with the proposed reservoir; however, the pump is not expected to be more energy intensive than the tractors and farming equipment currently operating in the area, the pump would only be operating during vineyard irrigation, and it would not be of a size or scale to cause wasteful energy use. In addition, the new pump station emissions would also be offset by decreased use of the existing pump station located at the nearby freshwater reservoir associated with the property's surface water right. 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 consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 - https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan).

With respect to transportation energy, existing energy standards are promulgated through the regulation of fuel refineries and products such as the Low Carbon Fuel Standard (LCFS), which 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.[18] 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.

VII.	**GEOLOGY AND SOILS.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii) Strong seismic ground shaking?	☐	☐	☒	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv) Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil creating substantial direct or indirect risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

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

f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

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., October 28, 2022, Geotechnical Investigation for Proposed Carneros Vista Reservoir (**Exhibit E-1**)
- PJC & Associates, Inc., February 3, 2023, Geotechnical Plan Review for Proposed Water Storage Reservoir (**Exhibit E-2**)

The Geotechnical Investigation conducted by PJC & Associates, Inc. Consulting Engineers & Geologists included excavation of eight exploratory test pits to depths between 4.5 and 6 feet and the drilling of two exploratory boreholes to depths between 25.5 and 26.5 feet below the existing ground surface to observe the soil and groundwater conditions (**Exhibit E-1**). 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**). PJC & Associates then reviewed the Grading Plans to ensure the plans were in conformance with their geotechnical recommendations and the exterior embankments had adequate factors of safety (**Exhibit E-2**).

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 active fault is approximately 2.5 mile east of the development area (Napa County GIS Faults Layer). The Geotechnical Investigation (**Exhibit E-1**) 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 or very strong seismic ground shaking potential during an earthquake (California Geological Society, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. The Geotechnical Investigation (**Exhibit E-1**) assumed that strong ground shaking will occur in the region and design parameters were provided to ensure the proposed reservoir would accommodate ground shaking. Therefore, this impact would be less than significant.
   iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County, 2009). The Geotechnical Investigation (**Exhibit E-1**) revealed no loose, saturated, granular soil stratums at the site and determined the risk of soil liquefaction at the site is low. Therefore, this impact would be less than significant.
   iv) Landslides have not been identified within the development area (Napa County GIS Landslide Layer). The impact is therefore considered less than significant (also see question c below for additional discussion regarding slope stability and landslides).

b. The project site is underlain by two soil mapping units, Diablo Clay, 2-9% slopes and Diablo Clay, 9-15% slopes. Implementation of the proposed project would involve earthmoving and grading activities within areas previously planted to vineyard. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

   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 #2 49C400270) which requires a series of standard and site specific BMPs, refer to **Exhibit D** for details. 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 #2 49C400270; **Exhibit D**) 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 E-1**) 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 E-1**) reviewed the soils onsite and determined the clay soils at the site have low to moderate expansion potential. Design parameters provided in the Geotechnical Investigation were provided 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 an agricultural water storage reservoir. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.

f. 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 location of the proposed reservoir within already disturbed vineyard area, 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.

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

Discussion:

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).[19] The updated thresholds to evaluate greenhouse gas (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 typically represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address

[19] https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, April 2022

operational GHG emissions which represent the vast majority of project GHG emissions.

Napa County has been working to develop a Climate Action Plan (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 greenhouse gas, 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 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. Overall increases in GHG emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. GHG emissions were found to be significant and unavoidable in that document, despite the

adoption of mitigation measures incorporating specific policies and action items into the General Plan.

Consistent with these General Plan action items, Napa County participated in the development of a community-wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency in December 2009, and served as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County.

The County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Conservation Element Plan Policy CON-65e. Pursuant to State CEQA Guidelines Section 15183, this assessment focuses on impacts that are "peculiar to the project," rather than the cumulative impacts previously assessed, because this Initial Study assesses a project that is consistent with an adopted General Plan for which an EIR was prepared.

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide (CO_2), methane, ozone, and the fluorocarbons, which contribute to climate change. CO_2 gas is the principal GHG being emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas against which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_2e) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. In this case, CO_2 is used as the reference atom/compound to obtain atmospheric carbon CO_2 effects of GHG. Carbon stocks are converted to CO_2e by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (http://www.nciasi2.org/COLE/index.html).[20]

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 Project Site 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, as there is no threshold against which to analyze the potential significance of impact.

"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 fallow vineyard. As discussed in **Section VI (Energy)**, once construction is complete, equipment use would be slightly lower than existing levels because the area would be converted from 6.5 acres of actively farmed vineyard to a reservoir, and the 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. A pump would be installed with the proposed reservoir; however, the pump is not expected to be more energy intensive than the tractors and farming equipment currently operating in the area and would offset use of the existing pump station located at the nearby freshwater reservoir associated with the property's surface water right.

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

[20] "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO_2. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the most generous emissions results from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_2e of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_2e of construction equipment emissions per acre of vineyard development.[21] Using this emission factor, it is anticipated that Construction Equipment Emissions associated with the proposed 6.5 gross acres of land disturbance would be approximately 61.1 MT CO_2e (6.5 acres multiplied by 9.4 MT CO_2e).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of a site to a different land use. The development area is currently fallow vineyard, meaning the vines have been removed and the area is currently dormant, and will either be converted to a reservoir if the proposed project is approved or could be replanted to vineyard under Track II ECP #P20-00169-ECPA. There is currently cover crop in the development area to minimize erosion risk, and therefore to present a more conservative GHG analysis it is assumed that the entire 6.5 acre development area is grassland, when in reality the area may be disked or mowed under the Track II ECP.

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 9.1 MT C or approximately 33.4 MT CO_2e (**Table 3**).

Table 3 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type / Carbon Storage	Development Area Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO_2e
Grassland[1]	6.5 acres	1.4	9.1	33.4
		Total	**9.1**	**33.4**

[1] For the purpose of these GHG calculations, the most conservative option was chosen; therefore the 6.5 acres of developed/disturbed land use type in the development area was considered grasslands for the purpose of this analysis.
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%.[22] Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 19.1 MT CO_2e (**Table 4**).

Table 4 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type / Carbon Storage	Development Area Acreage	Carbon Storage / Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO_2e
Grassland[1]	6.5 acres	0.8	5.2	19.1
		Total	**5.2**	**19.1**

[1] For the purpose of these GHG calculations, the most conservative option was chosen; therefore the 6.5 acres of developed/disturbed land use type in the development area was considered grasslands for the purpose of this analysis.
Source: Napa County Draft Climate Action Plan, March 2012

Operational Emissions:
Operational Equipment Emissions: The referenced vineyard development EIRs 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 CO_2e of operational emissions for a 560-acre vineyard, resulting in

[21] As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.
[22] Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

approximately 0.67 MT CO_2e of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated that Operational Equipment Emissions associated with a proposed 6.5-acre vineyard development would be approximately 4.4 MT CO_2e (6.5 multiplied by 0.67 MT CO_2e). While a proposed reservoir has none of the tractor, worker trip, or grape truck trips associated with vineyard operational activities, a pump would be installed which would use some level of energy. Therefore, the operational emissions of the proposed project are expected to be far below 4.4 MT CO_2e 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 loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 CO_2 acre per year, while grasslands, shrublands and developed are essentially zero (0.057 MT C). Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 0.37 MT C per year or 1.36 MT CO_2e per year. The embankments of the proposed reservoir would be seeded with a grass blend for erosion control purposes; approximately 1.7 acres of embankment are proposed (**Exhibit A**). Therefore, the operational sequestration emissions are even lower when the proposed grassy embankments are considered.

Total Project Emissions:
Based on the above estimates, the proposed project could result in one-time construction emissions of 80.2 MT CO_2e and annual ongoing emissions (including loss of sequestration) would be less than 5.76 MT CO_2e per year (**Table 5**).

Table 5 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons CO_2e		Annual Ongoing Emissions in Metric Tons CO_2e	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	61.1	Vehicles and Equipment	4.4
Vegetation and Soil	19.1	Loss of Sequestration	1.36
Total	**80.2**	**Total**	**5.76**

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 80.2 MT CO_2e 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. 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 5.76 MT CO_2e 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 fallow fields/grassland would be partially offset by the planting of a grassed cover crop on the reservoir embankments. Furthermore, a proposed reservoir has none of the tractor, worker trip, or grape truck trips associated with vineyard operational activities and therefore conversion of the fallow vineyard to a proposed reservoir would result in fewer of the GHG-emitting operational activities than what is currently occurring in the development area. 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 fallow vineyard 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.

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

Discussion:

a-b. 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 vineyard to water storage reservoir will reduce the amount of chemicals such as herbicides, mildewcides, and fertilizers used at the site that are considered hazardous materials. Therefore, there may be some risk to water quality during the construction phase but minimal risk during operation of the reservoir.

The Natural Resources 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). A 55-foot buffer has been maintained between the proposed reservoir and the unnamed blueline stream, ensuring there will be sufficient buffer to trap any chemicals, nutrients, or sediments that may be mobilized during construction.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because buffers of 55 feet and 1,400 feet have been maintained from the unnamed stream and Huichica Creek, respectively. 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. 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 construction activities:

- 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 condition 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 (Irene M. Snow Elementary) is located approximately 4.5 miles northeast of the project site. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.

d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). The Di Rosa Center for Contemporary Art, located approximately 2 miles north of the project site, is the closest open Geotracker site. Therefore, no impact would occur.

e. The closest public airport to the project site is the Napa Airport, located over approximately 4 miles east of the project site. The Sonoma Valley Airport is located approximately 5.3 miles west of the project site. No portion of the proposed project is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.

f. During construction, there would be five 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 Local Protection Responsibility Area and is outside of any mapped fire hazard severity zones; the project site is approximately 0.2 mile south of a 'moderate' 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 entirely surrounded by existing vineyard. The construction of a reservoir 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 there would be no impact.

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

Discussion:

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 April 21, 2021, Governor Gavin Newsom declared a drought emergency in the state of California and as of July 8, 2021, 50 counties are under the drought state of emergency, including Napa County. The Governor directed the Department of Water Resources to increase resilience of water supplies during drought conditions. On June 8, 2021, the Napa County Board of Supervisors adopted a resolution declaring a Proclamation of Local Emergency due to drought conditions which are occurring in Napa County. On October 19, 2021, the Governor issued a proclamation extending the drought emergency statewide.

In March 2022, Governor Newsom enacted Executive Order N-7-22, which requires prior to approval of a new groundwater well (or approval of

an alteration to an existing well) in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. Because the project utilizes recycled water, Executive Order N-7-22 does not apply.

On March 28, 2022, August 9, 2022, and November 8, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. 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. Although the Governor, through Executive Order No. N-5-23, rolled back some of the drought emergency provisions in late March 2023, due to current water conditions, the Governor's Emergency Order N-7-22 remains in place and the remaining criteria for the County's interim actions and procedures also remain. On May 30, 2023, the Napa County Board of Supervisors terminated the Local Emergency due to the 2021-2022 drought but acknowledged that there are still adverse conditions that will continue to affect the Napa Valley groundwater subbasin and the need to continue groundwater management efforts including the interim actions and procedures still exists.

As described above, the proposed project is the construction of a new approximately 75 AF agricultural reservoir to store recycled water purchased from the Napa Sanitation District (NapaSan). Therefore, a Recycled Water Purchase Agreement (**Exhibit B**) was obtained from NapaSan outlining the availability and price of recycled water for storage in the proposed reservoir. Although the development area is within 1,500 feet of a County-designated "Significant Stream"[23] for the assessment of groundwater pumping impacts, no groundwater would be pumped for or stored in the reservoir and therefore no WAA is required. This proposed project would reduce the reliance upon surface water on this property that is currently authorized via Water Right License 11612 (Permit 15849).

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

In response, the San Francisco Bay Regional Water Board has implemented the following programs. In 2009 the San Francisco Bay Regional Water Board adopted total maximum daily load (TMDL) for the Napa River (Order #R2-2009-0064), which calls for reductions in the amount of fine sediment deposits into the watershed to improve water quality and maintain beneficial uses of the river, including spawning and rearing habitat for salmonid species. Several watershed stewardship groups have developed management plans and are planning or have implemented large-scale projects to enhance water quality and stream-riparian habitat with the watershed (San Francisco Bay Regional Water Board, 2019).

There are numerous blueline streams, wetlands, and marshes on the Cuttings Wharf 7.5-minute quadrangle (USGS, 2012), in the National Wetlands Inventory (NWI; USFWS 2023), and in the California Aquatic Resources Inventory (CARI; SFEI, 2023); all of these are located outside of the development area. There are two blueline streams located on the parcel outside of the proposed development area, all of which have the appropriate setbacks determined by slope as outlined in NCC Section 18.108.025.

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 a SWPPP has been obtained (WDID #2 49C400270; **Exhibit D**). 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

[23] Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-Sustainability. The "Significant_Streams" and "Significant_Streams_1500ft_buffer" GIS layers are published as publicly-available open data through the County's ArcGIS Online Account.

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 reservoir would store recycled water purchased from NapaSan, as discussed in **Section XIX.b (Utilities and Service Systems)**. 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 fallow vineyard 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. pg. 10-20). The nearest FEMA Flood Hazard Zone (A) is shown on Sheet 1 of the Grading Plans (**Exhibit A**) and is over 1,300 feet east of the development area. The proposed project would not fall under Division of Safety of Dams (DSOD) jurisdiction.[24] 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 **Sections IV (Biological Resources)** and **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 #2 49C400270; **Exhibit D**) 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 reservoir would be filled with recycled water from the Napa Sanitation District. 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.

[24] Division of Safety of Dams, personal communication with Michelle Holmes, P.E., Senior Engineer. March 21, 2023 (**Exhibit G**)

XI.	LAND USE AND PLANNING. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion:

a. The project site is in a rural area of Napa County and the nearest established community is the City of Napa located approximately 4.5 miles northeast of the development area. The project site contains existing vineyard land and, therefore, the proposed reservoir which will support those vineyards is consistent with surrounding land uses and would not physically divide an established community and no impact would occur.

b. Surrounding land uses consist predominantly of vineyards, reservoirs and scattered rural residential. Surrounding parcels are zoned Agricultural Watershed (AW) in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

The proposed project has been analyzed for consistency with applicable sections of the NCC and with the Napa County General Plan. With inclusion of the conditions of approval discussed herein, 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 in that it has obtained a SWPPP (WDID #2 49C400270; **Exhibit D**) and therefore is in compliance with the National Pollution Discharge Elimination System (NPDES) program, as further discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require post-development sediment erosion conditions and runoff characteristics not be greater than pre-development conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would not increase soil loss or sedimentation, and would maintain runoff characteristics as compared to existing conditions.
- The proposed project is consistent with Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. The proposed project as proposed would avoid potential direct, indirect, and cumulative impacts to special-status plant species and wildlife species and associated habitat occurring on the project site. With implementation of the 'other permits' condition of approval, potential impacts to special-status bird species would be avoided. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that impacts to special-status species and their habitat can be avoided.
- The proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation because it was designed within existing fallow vineyard area and would not disturb native habitats or vegetation types. Therefore, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- Due to its location within existing fallow vineyard, the proposed project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- The proposed project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey Report was prepared for the proposed project (**Exhibit C**).
- The proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands, as there are no wetlands within the development area.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity and the reestablishment of wildlife movement.
- 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 conditions of approval incorporated, would not be in conflict with applicable County regulations, policies, or goals and is anticipated to have a less-than-significant impact with respect to applicable County regulations, policies, or goals.

XII.	**MINERAL RESOURCES.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2 and Map 2-1, Version 1, November 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resource area in Napa County is the Vulcan Materials Quarry located approximately 7 miles southeast of the project site. Proposed site improvements and development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

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

Discussion:

a-b. The project site is located in a rural setting where surrounding parcels are generally agriculture (planted with vineyards) and rural residential. The nearest residence is located approximately 800 feet from the development area. Additionally, adjacent proprieties and other properties

in the immediate area contain vineyards and reservoirs. 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 Levels

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

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

Table 7 characterizes the typical reduction in 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 Activities[1]

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

[1] Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be between approximately 55 and 60 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA 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,[25] 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).

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels between approximately 55 to 60 dBA, noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development

[25] Federal Highway Administration, 2017. Construction Noise Handbook. https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less-than-significant impact on ambient noise levels of the area.

During site preparation and vineyard installation, the use of heavy equipment could result in a temporary increase in ambient noise levels in the vicinity of the 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 GIS: Napa Airport Compatibility Zones and USGS Quad layers). Therefore, no impact would occur.

XIV.	**POPULATION AND HOUSING.** Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. The proposed project involves earthmoving activities and the installation of a water storage reservoir that would store recycled 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. Therefore, no impact would occur.

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

i)	Fire protection?	☐	☐	☐	☒
ii)	Police protection?	☐	☐	☐	☒
iii)	Schools?	☐	☐	☐	☒
iv)	Parks?	☐	☐	☐	☒
v)	Other public facilities?	☐	☐	☐	☒

Discussion:

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

XVI.	**RECREATION.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

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

XVII.	**TRANSPORTATION.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

c)	Substantially increase hazards due to a geometric design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d)	Result in inadequate emergency access?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion:

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 that "projects for which the specified VMT reduction measures would not reduce unmitigated VMT by 15 or more percent shall be considered to have a significant environmental impact." That policy is followed by an action item (CIR-7.1) directing the County to update its CEQA procedures to develop screening criteria for projects that "would not be considered to have a significant impact to VMT" and that could therefore be exempted from VMT reduction requirements.

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

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

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

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

a-b. Currently, the project site is developed with vineyards and associated outbuildings, access roads, and irrigation lines. The project site is primarily accessed from Duhig Road and Ramal Road. Trucks and other equipment would use County roads or State highways for short periods during construction. The proposed project is expected to generate up to ten passenger vehicle round trips per day during construction, and approximately 25 truck trips for project mobilization and demobilization at the start and end of construction. Construction equipment is anticipated to include a crawler tractor (D-8), two scrapers, a compactor, one excavator, dump truck, skid steer, grader, and water truck. 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 10 daily trips during construction and no trips after construction is complete, 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.

c. The proposed project would utilize the existing site access points off Duhig Road and Ramal Road for project development. The proposed project does not include roadway improvements and/or modifications to these County roadways, 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 proposed reservoir 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 (approximately five vehicles) during the construction period. Current County ordinances do not require formal parking for agricultural projects. Parking within the surrounding fallow vineyard area would satisfy parking demands of project installation and subsequent operations. Therefore no parking impacts are anticipated.

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

Discussion:

Notice of the proposed project was sent to the Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on March 13, 2023. On April 5, 2023, the Yocha Dehe Wintun Nation responded that the project site is not located within aboriginal territories of the Tribe. On May 5, 2023, the County replied and closed the consultation invitation because the Tribe declined comment on the project. No further communication was received from the other tribes from whom consultation was requested within the 30-day notification period. The County sent consultation closure notices to the Middletown Rancheria and Mishewal Wappo Tribe of Alexander Valley on May 5, 2023.

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.

As such, the proposed project, with the Cultural Resources conditions of approval, would result in less-than-significant impacts to Tribal

Cultural Resources, including those that may be eligible for the California Historical Resources Information System or local register or cultural resources as defined in Public Resources Code Section 5024.1(c).

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

Discussion:

a. The proposed project would generate a minimal number of 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 store recycled water already produced by the Napa Sanitation District (NapaSan) that is available for purchase when available (reference the Water Services Agreement dated August 1, 2022; **Exhibit B**).

   The proposed project also would include the installation of a limited number of onsite subsurface drainage features, but would not include any 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 Water Services Agreement with NapaSan guarantees the delivery of up to 28.14 acre-feet (AF) of recycled water during the high-demand summer months of May 1 through October 31 (reference Section 5(A) of **Exhibit B**). During the winter months from November 1 through April 30, as much recycled water as is available and desired by the landowner may be pumped and does not count against the summer allocation of 28.14 AF (reference Section 5(C) of **Exhibit B**). The proposed reservoir has been designed to provide sufficient capacity to store recycled water when it is available throughout the year and provide carry-over storage in dry years. The existing vineyard on the project parcel also has access to surface water via Water Right License 11612 (Permit 15849). The proposed project is intended to support the existing vineyards and provide operational flexibility by storing recycled water when it is available (generally in the winter months) for use during the irrigation season (summer months) while reducing the reliance upon surface water throughout the year. The Water Services Agreement with NapaSan ensures that sufficient water supply is available for the proposed project, and that this impact is less than significant.

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 statues and regulations. Therefore, no impact would occur.

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

Discussion:

The project site is located in a Local Protection Responsibility Area and is outside of any mapped fire hazard severity zones; the project site is approximately 0.2 mile south of a 'moderate' 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 70 feet to 100 feet above mean sea level and slopes range from 1% 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. Furthermore, 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 entirely surrounded by existing vineyard. 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 the impact would be less than significant.

d. Although the proposed project would alter land cover from existing vineyard 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 E-1**) 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 and this impact is less than significant.

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

Discussion:

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

a. As discussed in this Initial Study, implementation of the proposed project, with the incorporation of identified 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 fully developed area and would not disturb native habitats or vegetation, there are no anticipated impacts to biological resources. No trees would be removed nor are any trees located in the vicinity to provide habitat for nesting birds or roosting bats. Appropriate setbacks per NCC 18.108.025 have been maintained between the development area and the unnamed blueline stream located west of the project site to minimize any potential impacts to water quality. This blueline stream is a heavily impacted swale that does not contain riparian vegetation (**Exhibit C**); see **Section IV (Biological Resources)** for additional discussion. The development area has been farmed as vineyard since at least 1982 and is currently fallow, with disking and/or mowing occurring regularly that precludes the presence of special-status plants. The proposed project would not significantly impact wildlife movement corridors, as the area is currently developed and does not provide significant opportunities for wildlife movement in its existing condition. 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, and the range of special-status plant species would not be restricted, cumulative impacts are anticipated to be less than significant. With incorporation of standard conditions to protect cultural resources that may be discovered accidently, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Therefore, the proposed project as designed with the incorporation of identified conditions of approval, would have a less-than-significant potential to degrade the quality of the environment.

b. The project site is located partially within the Napa River Marshes – West and the Huichica Creek watersheds, which flows to the Napa River and San Pablo Bay. The Napa River Marshes – West drainage is 11,530 acres and is currently 1.76% converted to vineyard (approximately 203 acres). The Huichica Creek drainage is 4,070 acres and is currently 10.59% converted to vineyard (approximately 431 acres). 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 (#ENG23-00002) 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** (Emissions from Development 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 reduced use of tractors at the site, which may off-set (in part) potential impacts related to reductions in carbon sequestration. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources - Section IV:
A project-specific Biological Resources Reconnaissance Survey (WRA Inc., March 2023 - **Exhibit C**) 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 CNDDB, 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.

Cultural and Tribal Resources – Sections V and XVIII:
A cultural resource reconnaissance survey of the area identified no cultural resources in the development area. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidently, significant impacts to cultural and tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified conditions of approval, the proposed reservoir development project would have a less-than-significant project-specific and cumulative impact on cultural and tribal cultural resources.

Geology and Soils - Section VII:
The conversion of existing vineyard to a proposed 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 A Geotechnical Investigation (**Exhibit E-1**) 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 Napa Marshes-West or Huichica Creek watersheds. 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 hydrologic 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, 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.

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:

List of Tables

List of Exhibits

Exhibit A	Reservoir Grading Plans #ENG23-00002
Exhibit B	Water Services Agreement
Exhibit C	Biological Analysis for Proposed Agricultural Reservoir
Exhibit D	Stormwater Pollution Prevention Plan
Exhibit E-1	Geotechnical Investigation
Exhibit E-2	Geotechnical Plan Review Letter
Exhibit F	HydroCAD for Reservoir Overflow and NOAA Precipitation Estimates
Exhibit G	Application Submittal Materials and Correspondence

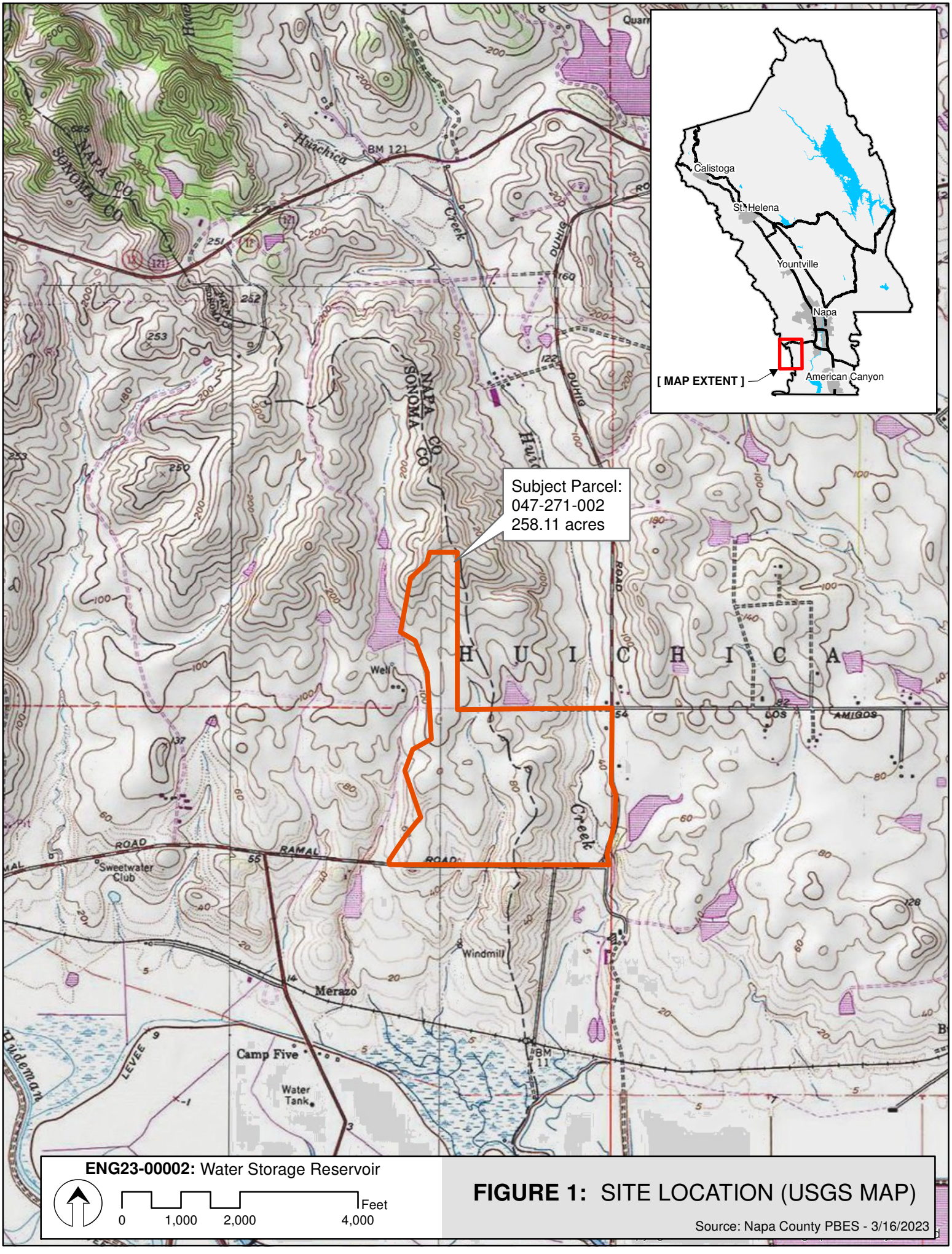
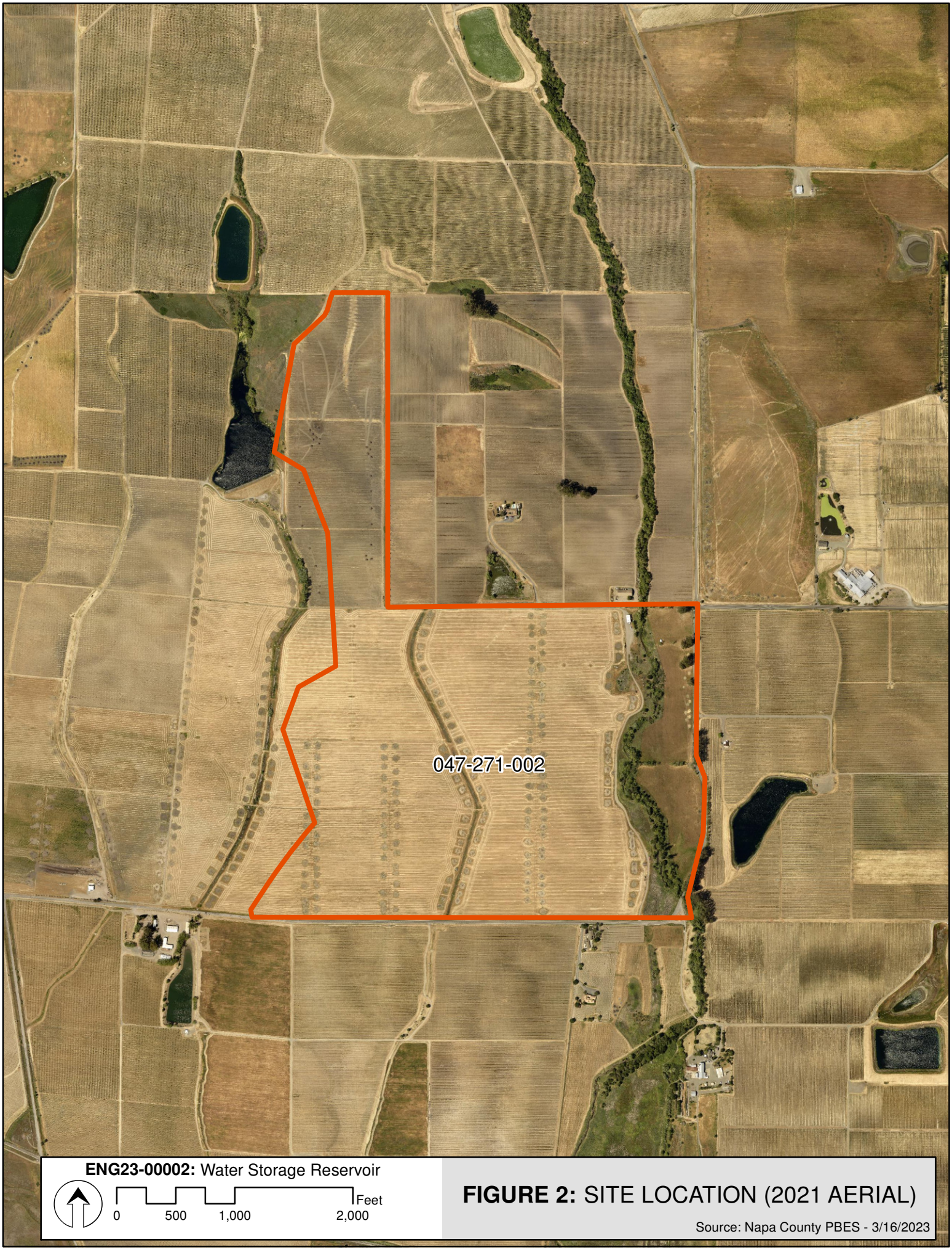


FIGURE 1: SITE LOCATION (USGS MAP)

Source: Napa County PBES - 3/16/2023



ENG23-00002: Water Storage Reservoir

0 500 1,000 2,000 Feet

FIGURE 2: SITE LOCATION (2021 AERIAL)

Source: Napa County PBES - 3/16/2023

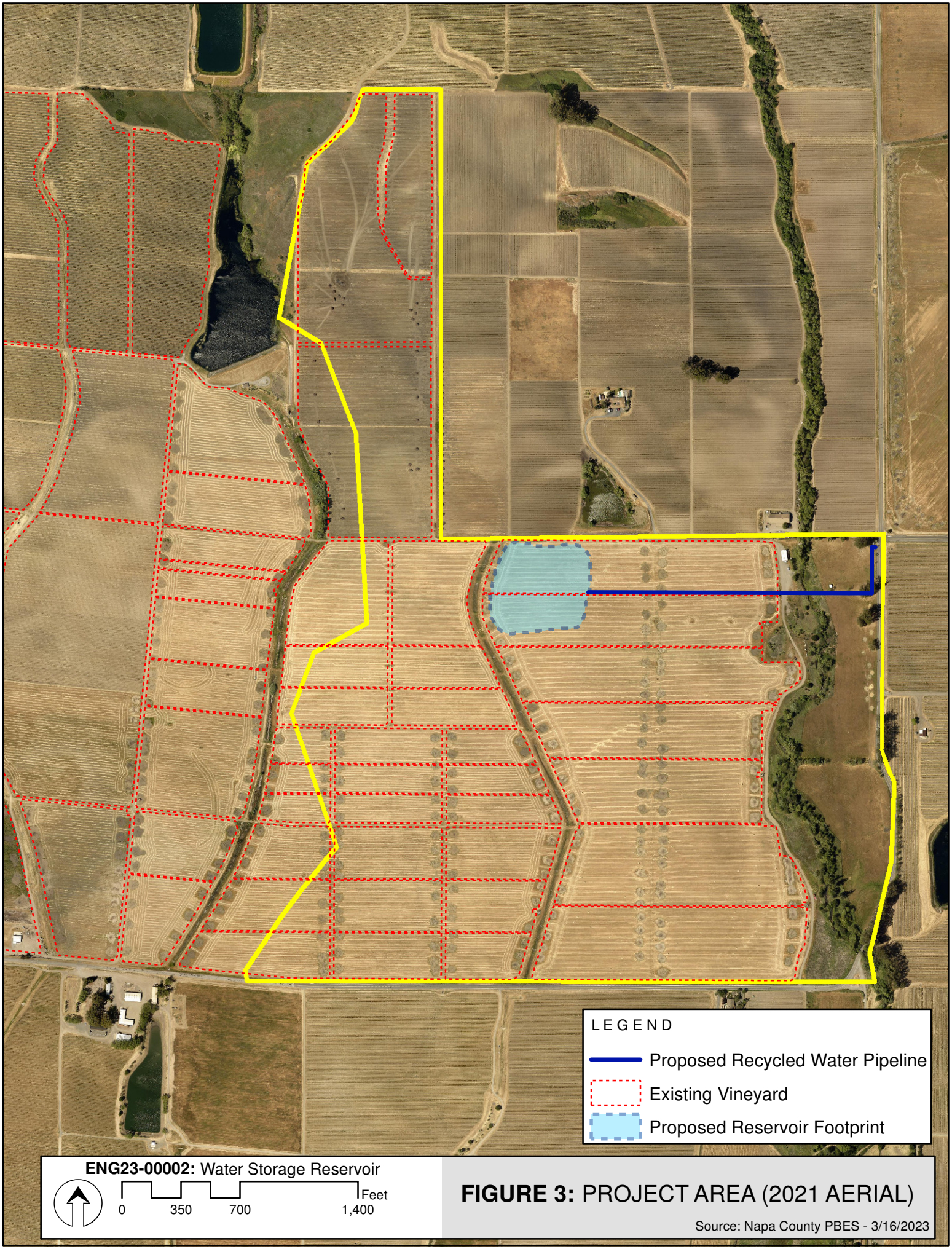


FIGURE 3: PROJECT AREA (2021 AERIAL)

Source: Napa County PBES - 3/16/2023