

**STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS
P.O. BOX 2000
SACRAMENTO, CA 95812-2000**

DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Project Title:	Infinite Leisure Water Right Petition for Change of License 7328
Project Location:	1200 Grand View Drive Napa, CA 94558
Lead Agency Name and Address:	State Water Resources Control Board Division of Water Rights 1001 I Street Sacramento, CA 95814
Contact Person and Phone Number:	Michael Meza (916) 341-5427
Applicant:	Infinite Leisure, LLC 1200 Grand View Drive Napa, CA 94558
Project Contact Person and Phone Number:	Josh Hannah (510) 459-4089
General Plan Designation:	Agricultural, Watershed, & Open Space (AWOS)
Zoning:	Agricultural Watershed (AW)

State Water Resources Control Board

PUBLIC COMMENT PERIOD, NOTICE OF AVAILABILITY, AND NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR PETITION TO CHANGE LICENSE 7328 (APPLICATION 18595)

To: Trustee Agencies, Napa County Clerk, and Interested Parties

On May 18, 2018, the State Water Resources Control Board (State Water Board) received a petition for change to increase the place of use for License 7328 under Water Code section 1701. Licensee requested to add 17 acres of previously cultivated and non-cultivated land within Sections 16, 17, 20, and 21 of Township 5 North, Range 4 West, Mount Diablo Base and Meridian (MDB&M), in Napa County.

The State Water Board is the California Environmental Quality Act lead agency for the change petition and intends to adopt a Mitigated Negative Declaration (MND) to support the State Water Board's consideration and action on the change request. This information is provided to satisfy the formal written notice requirements for public review of an initial study (IS) and draft mitigated negative declaration (MND) (Cal. Code Regs., tit. 14, § 15072). Notice is hereby given that the State Water Board is accepting comments on the IS/Draft MND for the requested changes of License 7328.

Proposed Project Description

Infinite Leisure, LLC (Petitioner) owns and operates Infinite Leisure Vineyard in Napa County. Infinite Leisure requests changes to the place of use of License 7328 where water from existing reservoirs can be beneficially used.

License 7328 permits diversion to storage a total of 43 acre-feet per annum from December 1 to April 1 of the following year. 43 acre-feet of water may be stored in three ponds with a maximum withdrawal of 39 acre-feet per year. Stored water is to be used for domestic uses, stock watering, and irrigation. Existing License 7328 allows 14 acres of irrigation within the Northeast quarter of the Northwest quarter and 1 acre within the

E. JOAQUIN ESQUIVEL, CHAIR | ERIC OPPENHEIMER, EXECUTIVE DIRECTOR

Southeast quarter of the Northwest quarter of projected Section 21, both within Township 5 North, Range 4 West, MDB&M.

Infinite Leisure seeks to expand the irrigated place of use of License 7328 to 31 acres. Within the 31 acres of proposed place of use, approximately 22 acres were developed with vineyards as of the May 2018 date of the petition, while 9 additional acres are planned for future vineyard development.

The water right petition associated with the request to increase the place of use of License 7328 was noticed to the public by the State Water Board on February 26, 2019. No protests to the request were filed.

Comment Submittal and Deadline

The State Water Board is accepting comments on the Draft MND for the change described above from the date of this notice through September 8, 2026. **Comments must be received by 5:00 pm on September 8, 2026.** Comments can be submitted as follows:

Email (preferred):

Michael.Meza@Waterboards.ca.gov

or

Mail:

State Water Resources Control Board – Division of Water Rights
Petitions and Licensing Unit – Attention: Michael Meza
P.O. Box 2000
Sacramento, CA 95812-2000

The IS/Draft MND is available on the State Water Board's webpage located at:
https://www.waterboards.ca.gov/waterrights/water_issues/programs/ceqa/

If you cannot access the document online, hard copies of the IS/Draft MND for the Proposed Project will be available at the location below by no later than September 8, 2026:

State Water Resources Control Board/CalEPA Building

1001 I Street,
2nd Floor Records Room, Room 2-114
Sacramento, CA 95814
(916) 341-5300

Open Monday through Friday from 9:00 a.m. – 4:30 p.m.

Appointments preferred.

Schedule an appointment by emailing: **dwr@waterboards.ca.gov**

If you have questions regarding this notice, please contact Michael Meza by email to:
Michael.Meza@Waterboards.ca.gov.

Sincerely,



7/30/2026

Date

Program Manager
Petitions, Licensing & Registrations Section
Division of Water Rights

Interested Parties

Planning Department
County of Napa
Terri.Abraham@countyofnapa.org

Department of Fish and Wildlife
Region III – Bay Delta Region
Shay.Richardson@wildlife.ca.gov

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LIST OF ABBREVIATIONS AND ACRONYMS

AG/LU	Agricultural Preservation and Land Use
Air District, BAAQMD	Bay Area Air Quality Management District
ARS	Archaeological Resource Service
AW	Agricultural Watershed
AWOS	Agricultural, Watershed, & Open Space
BAAD	Bay Area Air District
BMP	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAP	Clean Air Plan
CC	Community Character
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CESA	California Endangered Species Act
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database
CRHR	California Register of Historical Resources
CWPP	Community Wildfire Protection Plan
Division	Division of Water Rights
DTSC	Department of Toxic Substances Control
ECP	Erosion Control Plan
ECPA	Agricultural Erosion Control Plan Application
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gas
HMBP	Hazardous Materials Business Plan
Hwy	Highway
IS/MND	Initial Study and Negative Declaration
LOS	Level of Service
LRA	Local Responsibility Area
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MPH	Miles per Hour
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards

NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCBDR	Napa County Baseline Data Report
NOAA Fisheries	National Oceanic and Atmosphere Administration, Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OPR	Office of Planning and Research
PG&E	Pacific Gas & Electric
POD	Point of Diversion
POU	Place of Use
RCAAP	Regional Climate Action and Adaptation Plan
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act
SR	State Route
State Water Board	State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention System
TIS	Traffic Impact Study
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
VMT	Vehicle Miles Travelled
WDR	Waste Discharge Requirements

DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

INFINITE LEISURE, LLC

WATER RIGHT PETITION FOR CHANGE OF LICENSE 7328

1.0 INTRODUCTION

1.1 BACKGROUND

Infinite Leisure, LLC (Applicant or Petitioner) owns and operates Infinite Leisure Vineyard in Napa County (**Figure 1** and **Figure 2**). Infinite Leisure has submitted a Water Right Petition for Change of License 7328 (A018595) to the State Water Resources Control Board (State Water Board), Division of Water Rights (Division), requesting changes to the place of use (POU) where water from existing reservoirs can be beneficially used.

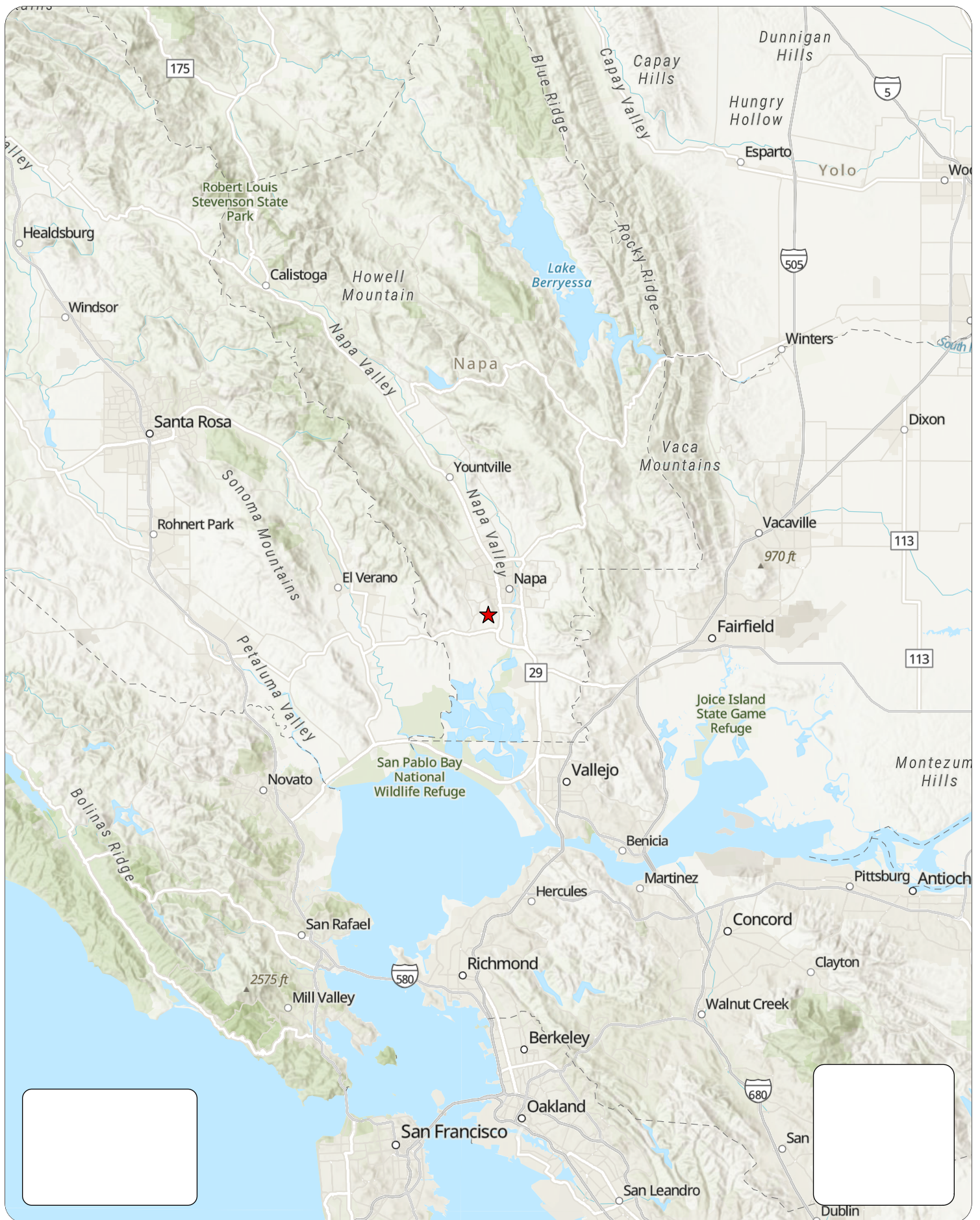
1.2 PURPOSE

This Draft Initial Study and Mitigated Negative Declaration (IS/MND) was prepared in order to comply with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code Section 21000 et seq., and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq.) for the State Water Board's discretionary review process, pursuant to California Water Code section 1701, of Infinite Leisure's May 22, 2018 Water Right Petition for Change.

This Draft IS/MND consists of two portions, the Initial Study (which contains the environmental analysis) and the Mitigated Negative Declaration (which contains the Lead Agency's conclusions about the environmental impacts of the proposed project and the feasibility of proposed mitigation measures to reduce these impacts to a less than significant level).

According to Section 15063 of the CEQA Guidelines, the purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration.
- Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.
- Assist in the preparation of an EIR, if one is required.
- Facilitate environmental assessment early in the design of a project.
- Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.
- Eliminate unnecessary EIRs.
- Determine whether a previously prepared EIR could be used with the project.



SOURCE: ESRI, 2025; Acorn Environmental, 1/15/2025

Figure 1
Regional Location

CEQA Guidelines Section 15070 (California Code of Regulations, Title 14, Section 15070) states that a Negative Declaration shall be prepared for a proposed project when either:

- a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
- b) The Initial Study identifies potentially significant effects, but
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If section 15070(b)(1) revisions are adopted, then a Mitigated Negative Declaration is prepared.

The purpose of this CEQA analysis is to determine if the project may have a significant effect on the environment. If it is determined that the proposed project will likely have a significant effect upon the environment that cannot be reduced to less than significant through the adoption of mitigation, an environmental impact report must be prepared. However, if the lead agency determines that the project will not have a significant effect on the environment, a Negative Declaration may be prepared.

The Division, as the CEQA Lead Agency, has determined that, based on the project's expected environmental impacts and the availability of mitigation measures to reduce these impacts, an Initial Study/Mitigated Negative Declaration (IS/MND) is the appropriate CEQA compliance document for the proposed project.

1.3 PUBLIC REVIEW PROCESS

As a public disclosure document, this Draft IS/MND provides an opportunity for agencies, local decision makers, stakeholders, and the general public to comment on the Proposed Project's potential environmental effects. CEQA requires public disclosure of information about the proposed project and seeks to foster public participation and informed decision making.

As the public agency with responsibility for reviewing the Water Right Petition and issuing an amended Water Right License, the Division is acting as the Lead Agency under CEQA. Napa County has the responsibility for approving an Erosion Control Plan (ECP) for any vegetation removal or earthmoving activities on slopes greater than 5 percent in connection with future planting of vineyards, and thus is acting as a Responsible Agency under CEQA. The California Department of Fish and Wildlife (CDFW) has trustee responsibility under state law for managing the fish and wildlife resources within the state of California and may require that the Applicant obtain a Lake and Streambed Alteration Agreement (LSAA) for ongoing diversions of water from three unnamed streams tributary to the Napa River (California Fish and Game Code, Section 1600 et. seq.). As such, CDFW will act both as a Trustee Agency and as a Responsible Agency under CEQA for this project.

1.4 PROJECT BACKGROUND

On June 14, 1965, Water Right Application 018595 (A018595) was licensed (L7328) by the State Water Board, to Carter C. Camp and Perlie S. Camp. L7328 permits the diversion to storage of a total of 43 acre-feet per annum (afa) during the period of December 1 of each year to April 1 of the following year. The water may be stored as follows:

- 17 afa in Pond 1 (maximum annual withdrawal of 14 acre-feet),
- 8 afa in Pond 2 (maximum annual withdrawal of 8 acre-feet), and
- 18 afa in Pond 3 (maximum annual withdrawal of 17 acre-feet).

Stored water is permitted to be used for domestic uses, stock watering and irrigation of pasture, orchards and vineyards.

The existing licensed POU includes both APNs 043-061-023 and 043-061-024, totaling 15 acres, including:

- Stockwatering and Domestic use within SE $\frac{1}{4}$ of SW $\frac{1}{4}$ and SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of projected Section 16; SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of projected Section 17; NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of projected Section 20; NW $\frac{1}{4}$ of NW $\frac{1}{4}$ and NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of projected Section 21 within Township 5N, Range 4W, Mount Diablo Baseline and Meridian.
- Irrigation of 14 acres within NE $\frac{1}{4}$ of NW $\frac{1}{4}$ and 1 acre within SE $\frac{1}{4}$ and NW $\frac{1}{4}$ of projected Section 21 within Township 5N, Range 4W, Mount Diablo Baseline and Meridian.

A subsequent owner, Nick Tsiplakos, purchased the subject property in 1994. Mr. Tsiplakos filed a Petition for Change of License 7328 (A018595) on May 22, 2018 seeking to expand the place of use from 15 acres to 31 acres under License 7328. Within the 31 acres of proposed place of use, approximately 22 acres were developed with vineyards as of the May 2018 date of the Petition, while 9 additional acres are planned for future vineyard development.

The property was subsequently purchased by Infinite Leisure, LLC, which filed a Change of Ownership form with the State Water Board on July 18, 2022, to remove Mr. Tsiplakos as the primary owner and replace him with the new owner, Infinite Leisure, LLC.

The Water Right Petition associated with the Proposed Project was publicly noticed by the State Water Board on February 26, 2019. No protests were filed.

1.5 ORGANIZATION OF THIS DOCUMENT

This document is organized into the following sections:

Section 1, Introduction: Describes the purpose, contents, and organization of the document.

Section 2, CEQA Baseline Conditions: Contains a determination as to the baseline date to be used for the analysis, and describes the environmental conditions and project features in place as of that date.

Section 3, Description of the Proposed Project: Includes a detailed description of the proposed project, and a discussion of permits and approvals needed.

Section 4, Water Right Public Notice and Protests: Provides details regarding the public notice issued by the Division regarding the water right application and summarizes any protests received regarding that application.

Section 5, Impact Analysis: Contains a discussion of the environmental impacts of the Proposed Project for each of the resource topics listed in the Environmental Checklist contained as Appendix G of the CEQA Guidelines. Each resource topic is discussed in a separate section that includes discussions of the following regarding the resource topic:

- The environmental setting,
- The regulatory setting (if appropriate),
- Methodology used in the analysis (if appropriate),
- Potential environmental impacts, including the significance of any identified impacts,
- Mitigation measures available to reduce identified significant impacts, and
- The level of significance of those impacts with the mitigation measures incorporated.

Section 6, Significance Determination: Identifies whether the impacts associated with the Proposed Project could:

- Have a significant impact on the environment, in which case a negative declaration will be prepared;
- Have a significant impact on the environment, but revisions to the project (including mitigation measures) have been made by or agreed to by the project proponent which will reduce all impacts to less than significant, in which case a mitigated negative declaration will be prepared; or
- May have a significant impact on the environment, and an environmental impact report is required.

Section 7, List of Preparers: Lists the people who participated in preparation of this Initial Study.

Section 8, References: Lists the documents and other information sources cited in the Initial Study, as well as individuals consulted.

Appendices: Contains technical reports and other detailed information that supports the analyses and conclusions reached in the Initial Study.

2.0 CEQA BASELINE CONDITIONS

CEQA requires that the Lead Agency describe the existing environmental setting (i.e., the physical environmental conditions) from a local and regional perspective. Baseline conditions serve as the benchmark against which the potential impacts of a proposed project are compared as part of a CEQA analysis. The CEQA Guidelines (Section 15125) state that, generally, the CEQA Lead Agency should describe baseline conditions present at the time that the Lead Agency commences the environmental analysis. The Division typically considers the environmental review for water right applications to begin as of the date when the water right petition is submitted to the State Water Board.

This document also describes environmental conditions at the project site as of the baseline date and identifies which features existed at the time of the baseline date.

2.1 BASELINE DATE

Infinite Leisure's Petition for Change of License 7328 was submitted to the State Water Board on May 22, 2018. Therefore, the baseline date for the analysis in this Draft IS/MND is May 22, 2018.

2.2 FEATURES PRESENT AS OF THE BASELINE DATE

An aerial photograph taken during 2018 (**Figure 3**) shows that approximately 22 acres of vineyards had already been developed as of the baseline date, including 7 acres outside of the POU authorized by License 7328. **Table 2-1** indicates the status of individual project features as of the baseline date. **Table 2-2** shows the project components existing at baseline.

Table 2-1: Timing of Development of Project Features

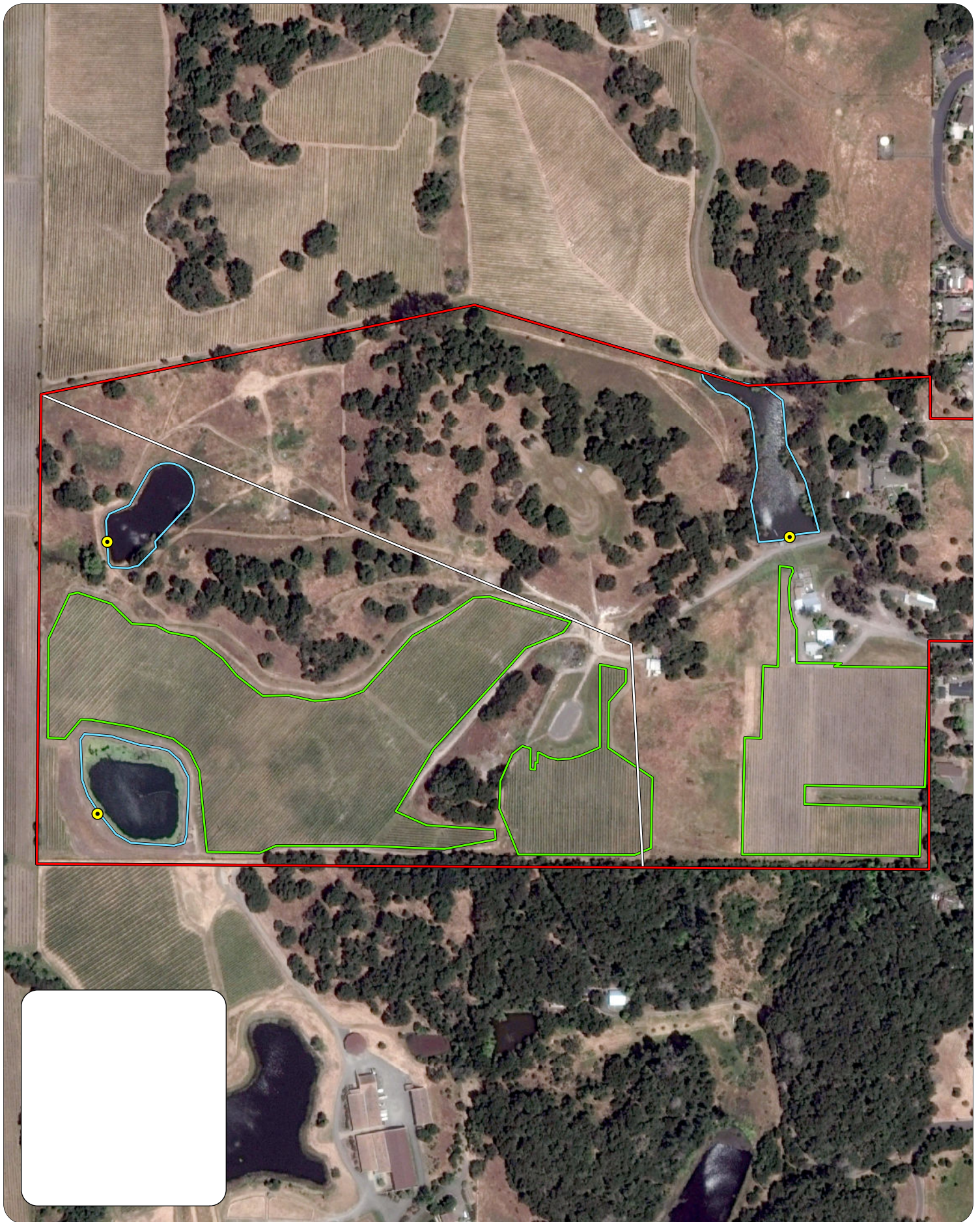
Feature/Water Use	Year Constructed/ Installed	Existing at Baseline Date
Ponds 1 (POD 1), 2 (POD 2), and 3 (POD 3)	Prior to 2018 ¹	Yes
Points of Diversion 1, 2, and 3	Prior to 2018 ¹	Yes
Approximately 22 acres of vineyards	Prior to 2018 ¹	Yes
Water Distribution System (22 acres)	Prior to 2018 ¹	Yes

¹ Based on Google Earth historical aerial photography taken May 19, 2018.

Table 2-2: Baseline and Proposed Project Components

CEQA Baseline Date	Component Type/Water Use	Project Components Existing at Baseline	Proposed Project Components
May 22, 2018	Place of Use	Approximately 22 acres of irrigated vineyard	9 additional acres of vineyard
	Diversion and Rediversion of Water	Points of Diversion 1, 2, and 3	No additional Points of Diversion
	Use of Water	Irrigation, Domestic, and Stockwatering ^a	No additional Purposes of Use
	Storage	Ponds 1, 2, and 3	No additional Points of Storage
	Water Distribution	Irrigation system for 22 acres of vineyard	Extend system to additional 9 acres of vineyard

^a Although water was only being used for irrigation at the baseline date, it is noted that allowable uses under License 7328 also included stockwatering and domestic use.



SOURCE: ESRI, 2025; Napa County GIS, 2025; Google Earth Aerial Photograph, 5/19/2018; Acorn Environmental, 1/16/2025

Figure 3
2018 Baseline Conditions

2.3 GENERAL ENVIRONMENTAL SETTING

The Proposed Project is located in southwestern Napa County, approximately two miles southwest of downtown Napa and eight miles east of downtown Sonoma. It is situated on the southern flank of the Mayacama Mountains where the low elevation and low gradient rolling hills connect to the Napa-Sonoma Baylands.

The Proposed Project is located in the valley-bayland fog incursion zone of Napa County, where precipitation is supplemented by fog drip. The average monthly maximum temperature at Napa State Hospital is 82.8 degrees Fahrenheit, while the average monthly minimum temperature is 48.1 degrees Fahrenheit. Predominantly, precipitation falls as rainfall with an annual average of 26.5 inches. Precipitation-bearing weather systems are predominantly from the west and south with most of the rain (22.08 inches) falling between November and March.

Historically, land uses in the region were open rangeland of larger ranches, rural residential, row crops, vineyards, and orchards. There is no history of intensive agriculture (except vineyards), quarrying, mining, or timbering in the Study Area. Land cover types observed within the study area include: developed, non-native grassland, blue gum grove, coast live oak woodland, seasonal wetland, and reservoirs.

3.0 DESCRIPTION OF THE PROPOSED PROJECT

3.1 PROJECT DESCRIPTION

The Petition for Change of License 7328 (A018595), as amended, requests that the POU for irrigation be modified to remove approximately 6 acres of the authorized POU located within APN 047-100-044. Additionally, the Petition for Change seeks to expand the POU for irrigation use to 31 acres within APNs 043-061-023 and 043-061-024. The Petitioner intends to plant vineyards within the remaining undeveloped portion of the expanded POU (approximately 9 acres). **Figure 4** presents an overview of the various existing and proposed project components associated with the Petition for Change.

3.1.1 Diversion Amount, Timing, and Rate

License 7328 (A018595) permits the diversion to storage of 43 afa in three existing reservoirs during a season of diversion from December 1 of each year to April 1 of the following year, and use of 39 acre-feet for all purposes of use. No changes to the licensed rate, amount, or timing of diversions are proposed. Staff gauges were installed in 2017 to monitor water levels within each reservoir and track withdrawals. Historically, the realized diversion amount may have been less than the allowable licensed amount. While future diversions may more frequently result in diversion of the full licensed amount, diversions would not exceed the diversion amount authorized under License 7328. Irrigation occurs from Ponds 1 and 2 and is conducted via micro-sprinkler or drip irrigation.



SOURCE: ESRI, 2025; Google Earth Aerial Photograph, 6/8/2023; Client Provided Data, Unknown Date;
Acorn Environmental, 1/16/2025

Figure 4
Project Features

3.1.2 Purposes of Use

License 7328 (A018595) authorizes the following purposes of use:

- Irrigation, within the licensed POU
- Stockwatering, at the reservoirs
- Domestic uses.

No changes to the licensed purposes of use are proposed.

3.1.3 Points of Diversion

License 7328 (A018595) permits three points of diversion (POD), at ponds 1, 2, and 3.

No changes to the licensed PODs are proposed.

3.1.4 Places of Storage

Water diverted under License 7328 (A018595) would continue to be stored in three existing reservoirs (Ponds 1, 2, and 3) (**Figure 3**). Each reservoir fills independently from its naturally tributary watershed. Irrigation withdrawals occur from Ponds 1 and 3. During the summer months, water may be transferred by gravity from Pond 2 to Pond 3 through an existing pipeline. A licensing inspection conducted by Division staff on July 20 and 21, 1959, documented a combined storage capacity of 43 acre-feet for the three reservoirs. The reservoirs typically fill on an annual basis and spill during the rainy season, depending on drought and rainfall conditions. **Table 3-1** presents the specifications of the reservoirs.

No changes to the licensed storage are proposed.

Table 3-1: Storage Reservoir Specifications

Reservoir Name	Approximate Dam Specifications				Approximate Reservoir Specifications		
	Vertical Height (feet)	Construction Material	Length (feet)	Freeboard ¹ (feet)	Surface Area (acres)	Capacity (acre-feet)	Maximum Water Depth (feet)
Pond 1	26	Earth	230	4.0	1.4	17	15
Pond 2	18	Earth	160	3.5	1.0	8	18
Pond 3	18	Earth	570	3.5	1.6	18	18

Sources: SWRCB Division of Water Rights e-WRIMS, 2023; Kelder Engineering Inc., 2017; Wagner & Bonsignore, 2023; Aerial imagery taken from Google Earth in 2023

¹ Dam height above spillway crest elevation.

3.1.5 Place of Use

No changes are proposed to the POU for stockwatering and domestic purposes. However, the Petition for Change of License 7328 (A018595) requests the POU for irrigation to be expanded to a total of 31 acres within the property boundary (**Table 3-2** and **Figure 4**). As described in **Section 2.2**, approximately 22 acres of the POU are planted vineyard and the remaining 9 acres may be planted in the future.

Table 3-2: Requested Place of Use - Irrigation

Use Within	Section	Township	Range	B.&M.	Acres
SW¼ of SW¼	16	T5N	R4W	M.D.	2
SE¼ of SW¼	16	T5N	R4W	M.D.	3
SE¼ of SE¼	17	T5N	R4W	M.D.	2
NE¼ of NE¼	20	T5N	R4W	M.D.	6
NW¼ of NW¼	21	T5N	R4W	M.D.	10
NE¼ of NW¼	21	T5N	R4W	M.D.	8
Total					31

3.2 PROJECT CONSTRUCTION

Implementation of the Proposed Project would involve the following physical modifications to the environment:

- Development of approximately 9 additional acres of vineyard, beyond the acreage planted as of May 22, 2018 (**Figure 4**);
- Installation of drip irrigation distribution lines to individual vines. Installation of new irrigation mainlines to distribute water to the proposed expanded POU will not need to be constructed, as this system is already in place.

3.3 PROJECT OPERATION

As noted above, no changes to the licensed rate, amount, or timing of diversions are proposed. However, under the Proposed Project, additional water would be withdrawn from the three existing reservoirs during the irrigation season in comparison to recent years to irrigate the additional 9 acres of proposed vineyards. Even with the additional diversion, no more than the amount authorized by License 7328 will be diverted and used.

Operation and maintenance of the additional 9 acres of proposed project would be consistent with operational activities associated with the existing vineyard on the Project Site, and would involve industry standard practices for pruning, pest control, irrigation, canopy and floor management, and harvesting activities. Cover crops are maintained in accordance with the County-approved ECP, which will identify the best species blend and percentage of vegetative cover to minimize erosion, as well as allowable maintenance (e.g., mowing, disking, herbicide depending on the site-specific conditions). Any pesticide or herbicide use would be consistent with the existing vineyard, and is regulated by the County Agricultural Commissioner's office. Vineyard operations have two peak seasons: pruning, typically between January and March, and harvest, which varies annually but is typically between late August and October.

3.4 PERMITS AND APPROVALS

While the State Water Board has jurisdiction over the approval of the requested Petition for Change, other agencies whose approval may be required include:

- Napa County – issuance of an ECP for vegetation clearing and earth moving activities on slopes greater than 5 percent¹
- CDFW – issuance of a LSAA

4.0 WATER RIGHT PUBLIC NOTICE AND PROTESTS

Notice regarding the Petition for Change on L7328 was posted on the State Water Board website on February 26, 2019, and closed for comment on March 28, 2019. No protests were received.

5.0 IMPACT ANALYSIS

This section presents an impact analysis based on the environmental checklist form found in Appendix G of the CEQA Guidelines (State of California 2025). The checklist form is used to describe the potential environmental impacts of the Proposed Project. Environmental factors not checked below have been determined to have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce each impact to less than significant.

- | | | |
|--|--|---|
| ☐ Aesthetics | ☐ Agricultural/Forestry Resources | ☐ Air Quality |
| ☒ Biological Resources | ☒ Cultural Resources | ☐ Energy |
| ☒ Geology/Soils | ☐ Greenhouse Gas Emissions | ☐ Hazards and 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 |

The analyses of environmental impacts, below, result in an impact determination, which have the following definitions.

Potentially Significant Impact: This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than

¹ The landowner intends to submit an ECP to Napa County for the planting of 0.6 net acre of vines within 0.8-acre gross clearing limits within the proposed POU. This ECP has been designed to be exempt from CEQA review under Napa County's *Local Procedures for Implementing the California Environmental Quality Act* (February 2020), under Class 4 'Minor Alterations to Land.'

significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated: This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact: This category is identified when the proposed project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact: This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

5.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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 nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

5.1.1 Environmental Setting

The Proposed Project Site is a total of approximately 108 acres and is located in southwestern Napa County, on the southern flank of the Mayacamas Mountain Range. The topography features gentle to

moderate slopes, with elevations ranging from approximately 80 to 320 feet above mean sea level. The central portion of the Project Site includes single-family residences, outbuildings, and infrastructure, with access roads throughout. The northern portion remains largely undeveloped, while the southern half contains vineyard blocks. The surrounding area is primarily agricultural, and the eastern boundary of the site borders the City of Napa.

None of the roads in Napa County are officially designated as Scenic Highways by the State of California (see below); however, segments of Highway (Hwy) 29, State Route (SR) 121 and SR 221 are eligible for scenic highway designation. Old Sonoma Road, located 0.3 mile west of the Project Site, and Hwy 29, located 0.4 mile east of the Project Site, are identified as scenic roadways in the Napa County General Plan and are subject to the Napa County Viewshed Protection Program (see below; Napa County, 2008).

5.1.2 Regulatory Framework

State

Scenic Highway Program: The Scenic Highway Program, established in 1963, is designed to preserve and enhance the scenic quality of designated roadways and their surrounding corridors. The program, administered by Caltrans, identifies highways that either qualify for or have been officially designated as scenic. Official designation ensures the highway is managed to prevent visual degradation while promoting resource conservation and sustainable development.

Local

Napa County General Plan: The Community Character (CC) and Agricultural Preservation and Land Use (AG/LU) Elements of the Napa County General Plan includes policies pertaining to aesthetic resources:

Policy CC-1: The County will retain the character and natural beauty of Napa County through the preservation of open space.

Policy CC-10: Consistent with the County's Viewshed Protection Program, new developments in hillside areas should be designed to minimize their visibility from the County's scenic roadways and discourage new encroachments on natural ridgelines. The County shall continue implementation of the Viewshed Protection Program and shall apply the protective provisions of the program to all public projects.

Policy AG/LU-10: New wineries and other agricultural processing facilities as well as expansions of existing wineries and facilities in agricultural areas should be designed to convey their permanence and attractiveness.

Napa County Viewshed Protection Program (County Code 18.106): The Viewshed Protection Program aims to preserve Napa County's scenic quality by ensuring that future developments are compatible with existing landforms, particularly ridgelines, and that views of the County's distinctive geologic features and hillside landscapes are protected. The program establishes hillside development standards to minimize the impact of man-made structures and grading on the views of existing landscapes and open spaces, as seen from designated public roads within the County.

5.1.3 Environmental Evaluation

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The visual impact of the Proposed Project would be limited to the development of 9 acres of proposed vineyards, which would be located adjacent to the 22 acres of existing vineyards on the Project Site. As such, the Proposed Project would be consistent with the agricultural use of the site and the surrounding area, which is comprised primarily of agricultural land and vineyards. Further, the Project Site is not located near any notable scenic vistas and does not serve as a vantage point for a scenic vista. There would be a less-than-significant impact, and no mitigation would be required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated State Scenic Highways within the County; however, segments of Hwy 29, SR 121, and SR 221 are eligible for designation. Hwy 29 is located 0.4 mile east of the Project Site. As discussed in **Impact c)**, the Project Site would be partially visible from short segments of this roadway; however, the Proposed Project represents an expansion of existing vineyards, and views of the site from Hwy 29 would not be substantially altered. The proposed 9 acre vineyard conversion area is an open grassland that does not contain trees, rock outcroppings, or prominent landforms, so the Proposed Project would not impact any of these resources. Additionally, because the proposed 9 acre vineyard conversion area is located adjacent to and would extend existing vineyard blocks, it would not obstruct views from adjacent areas. There would be no impact.

c) In nonurbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. Old Sonoma Road (0.3 mile west) and Hwy 29 (0.4 mile east) are both scenic roadways as designated by the Napa County General Plan within the vicinity of the Project Site. The Project Site is located approximately 100 feet in elevation above each of these roadways, with other neighboring vineyards, rolling hills, and trees between the Project Site and these roadways that help to screen views of the site. However, there may be limited glimpses of the Project Site by passing motorists along segments of these roads. The proposed 9 acres of vineyards would be adjacent to the existing vineyard blocks, filling the central area of the vineyard rather than expanding its western or eastern boundaries towards the roadways. As a result, the new vineyard blocks are not expected to be visible from these roadways and would not degrade the quality of views experienced from these roadways. Additionally, the topography of the Project Site and surrounding area, which features gentle to moderate slopes, further limits visibility of the site. The Proposed Project represents an expansion of existing vineyards rather than a new agricultural use on the Project Site and is consistent with the surrounding agricultural landscape of the area, where vineyards are typical. Therefore, this impact would be less than significant, and no mitigation would be required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The 9 acres of proposed vineyards would not require permanent lighting or include components that could contribute to glare. Operations and maintenance activities may involve the temporary, seasonal use of farm equipment with limited intensity, downward-directed safety lighting during harvest and certain pest or disease control applications, which could occur in the early morning or evening hours. However, vineyard operations would be consistent with the existing 22 acre vineyard on the property, and would not introduce substantial new sources of light or glare that could affect day or nighttime views. There would be no impact.

5.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
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 by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

5.2.1 Environmental Setting

The Project Site is zoned Agricultural Watershed (AW), which allows for agriculture, one single-family dwelling unit per legal lot, accessory dwelling units, residential care facilities, and more outlined in Napa County Municipal Code (NCC) § 18.20.020. The Project Site is predominantly undeveloped except for single-family residences, outbuildings, and associated infrastructure in the central portion of the site, and access roads throughout. The southern half features vineyard blocks. Terrestrial habitat types within the Project Site include developed, non-native grassland, blue gum grove, and coast live oak woodland.

Aquatic habitat types within the Project Site include seasonal wetlands and man-made reservoirs. Soils on the Project Site are classified as Prime Farmland if irrigated, not prime farmland, and Farmland of Statewide Importance (NRCS, 2025).

5.2.2 Regulatory Framework

Federal

Farmland Protection Policy Act (FPPA): FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. It assures that federal programs are administered in a manner that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201).

State

Williamson Act: This act is designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban areas. Landowners contract with the County to maintain agricultural or open space land use of their lands in return for a reduced property tax assessment.

Right to Farm Act: California Civil Code Section 3482.5, also known as the Right to Farm Act, contains provisions to ensure that agricultural operations are not considered nuisances, so long as they do not obstruct navigable waterways or public areas. This ordinance supersedes any conflicting local regulations but does not prohibit local jurisdictions from adopting ordinances that allow notification to those in close proximity to an agricultural activity that they are subject to the provisions of the Right to Farm Act.

Local

Napa County General Plan: The Agricultural Preservation and Land Use Element of the Napa County General Plan outlines the following goals and policies applicable to the Project Site:

Goal AG/LU-1: Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County

Policy AG/LU-4: The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development

Goal AG/LU-3: Support the economic viability of agriculture, including grape growing winemaking, and other types of agriculture, and supporting industries to ensure the preservation of agricultural lands.

Napa County Code Right to Farm: No existing or future agricultural activity, operation or facility, or any of its appurtenances, conducted or maintained for commercial purposes in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, public or private, due to any changed condition in or about the county, after the same has been in operation for more than three years if it was not a nuisance at the time it began. Provided, however, that such agricultural operations must comply with all provisions of this code and further provided that the provisions of this section shall not apply whenever a nuisance results from the negligent or improper operation of any agricultural operation.

5.2.3 Environmental Evaluation

- a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The Project Site contains Farmland of Statewide Importance and Prime Farmland if irrigated (NRCS, 2025). Implementation of the Proposed Project would include the planting of up to 9 acres of new vineyards. No land would be converted to non-agricultural uses, therefore there would be no impact.

- b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The Proposed Project is agricultural in nature and is consistent with the AW zoning. No zoning conflicts would occur, therefore there would be no impact.

- c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

No Impact. The Project Site contains coast live oak woodland and a blue gum grove but neither are considered forest land or timberland. Furthermore, there are no trees within the proposed vineyard conversion area. The Project Site is not zoned for timberland production or forest land, therefore the Proposed Project would have no impact.

- d) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. There are no trees present within the proposed vineyard conversion area and no designated forest land on the Project Site, therefore the Proposed Project would have no impact.

- e) **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. The Proposed Project is consistent with the existing zoning and the land use would remain in agricultural uses. No forest land or farmland would be converted as a result of this Project, therefore there would be no impact.

5.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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?	☐	☐	☐	☒

5.3.1 Environmental Setting

The Project Site is located within Napa County, California and lies within the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB encompasses all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, as well as the southwestern portion of Solano County and the southern portion of Sonoma County. Air quality in the SFBAAB, including that of Napa County, is regulated by the Bay Area Air District (BAAD).

The Napa Valley is surrounded by mountains that serve as barriers to prevailing northwesterly winds. As such, pollutants are often trapped and concentrated within the Valley so that they cannot disperse. During the summer and fall, wind patterns transport air pollutants from San Pablo Bay into the Napa Valley. In the late fall and winter, particulate matter from motor vehicles, agriculture, and wood burning in fireplaces and stoves can accumulate due to the high frequency of light winds and stable atmospheric conditions (Napa County, 2009).

Attainment Status

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}), and lead. Areas in compliance with state and federal thresholds for concentrations of criteria air pollutants are classified as being in "attainment." As shown in **Table 5-1**, Napa County is currently designated as a nonattainment area for state PM_{2.5} and PM₁₀ standards and as a nonattainment (transitional) area for state ozone standards. Further, Napa County is designated as a nonattainment (marginal) area for federal ozone standards and as a nonattainment (moderate) area for federal PM_{2.5} standards. All other federal and State ambient air quality standards are designated as attainment.

Table 5-1: Air Quality Attainment Status for Napa County

Pollutant	California Standard	Federal Standard
Ozone	Nonattainment (Transitional)	Nonattainment (Marginal)
CO	Attainment	Attainment
NO _x	Attainment	Attainment
SO _x	Attainment	Attainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment (Moderate)

Source: CARB, 2023; USEPA, 2023

Sensitive Receptors

The nearest sensitive receptor to the Project Site includes a rural residential community located adjacent to the eastern boundary of the site. Irene M. Snow Elementary school is located approximately 0.4 mile northeast of the Project Site.

5.3.2 Regulatory Framework

Federal

Clean Air Act (CAA): The U.S. Environmental Protection Agency (USEPA) is responsible for enforcing the CAA. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS), which are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g. beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

State

California Air Resources Board: CARB is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing the California Ambient Air Quality Standards (CAAQS). The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS, which are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. CARB additionally regulates mobile air pollution sources, such as motor vehicles.

Local

Napa County General Plan: The Conservation Element of the Napa County General Plan includes the following policy that is relevant to the Proposed Project:

Policy CON-77: All new discretionary projects shall be evaluated to determine potential significant project-specific air quality impacts and shall be required to incorporate appropriate design, construction, and operational features to reduce emissions of criteria pollutants regulated by the state and federal governments below the applicable significance standard(s) or implement alternate

and equally effective mitigation strategies consistent with BAAD's air quality improvement programs to reduce emissions.

Bay Area Air Quality Management District (Air District; BAAQMD): All projects in Napa County are subject to applicable BAAQMD rules and regulations at the time of construction. The Air District requires the implementation of basic best management practices (BMPs) to control fugitive dust emissions during construction. BMPs are outlined below:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed 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 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

5.3.3 Environmental Evaluation

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The BAAQMD 2017 Clean Air Plan (CAP) represents the most recent air quality plan for the SFBAAB. The primary goals of the CAP are to protect public health and achieve attainment of air quality standards. The CAP includes a wide range of proposed control measures aimed at reducing non-attainment pollutants. The Air District's current guidance (2022) requires consideration of the following questions to determine whether a project is consistent with the air quality plan:

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

The BAAQMD-recommended guidance for determining project consistency with the CAP involves comparing a project's estimated emissions against BAAQMD significance thresholds. Projects with emissions below BAAQMD significance thresholds, after the implementation of all feasible mitigation measures, would be consistent with the goals of the CAP. As discussed in Impact b), construction and operation of the Proposed Project would not generate substantial pollutant concentrations that would exceed BAAQMD thresholds of significance. Thus, the Proposed Project would not conflict with the goals of the CAP.

According to the Air District, projects that incorporate all applicable control measures are considered consistent with the CAP. The CAP includes 85 control measures aimed at reducing air pollution in the SFBAAB. Of these, the only control measure applicable to the Proposed Project is Transportation Control Measure TR22 that addresses emissions from construction equipment. Control measure TR22 uses

various strategies to reduce emissions from construction and farming equipment. The Proposed Project would comply with this control measure and thus would not conflict with its implementation. Therefore, the Proposed Project would not be inconsistent with nor hinder implementation of any of the CAP control measures. The Proposed Project would not conflict with or obstruct implementation of the CAP (BAAQMD, 2022; BAAQMD, 2017). There would be a less-than-significant impact, and no mitigation would be required.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. According to the Air District, if a project exceeds the identified project-level thresholds of significance detailed in **Table 5-2**, its emissions would result in a significant adverse air quality impact.

Table 5-2: Project Level Air Quality Thresholds of Significance (lbs./day)

Pollutant	Construction Threshold	Operational Threshold
ROG	54	54
NO _x	54	54
PM ₁₀	82 (exhaust)	82
PM _{2.5}	54 (exhaust)	54
PM ₁₀ /PM _{2.5} (Fugitive Dust)	BMPs	None

Source: BAAQMD, 2022

To assess the Proposed Project's air quality emissions, emissions analyses from three certified EIRs for vineyard development in Napa County were reviewed: Circle S Ranch Vineyards² (400 acres), Suscol Mountain Vineyards³ (560 acres), and Walt Ranch Vineyard⁴ (507 acres). This is consistent with Napa County's methodology for estimating air quality emissions of smaller (e.g., non-EIR) ECP vineyard projects.⁵ The modeling assumptions for each vineyard project are described below:

- The **Circle S EIR** estimated phased construction (approximately 150 acres per phase, totaling approximately 377.6 net acres) generating 100 15-mile one-way trips per day (75 worker trips and 25 truck trips). Peak harvest operations (400 acres) would generate 170 15-mile one-way trips per day (160 worker trips and 8 grape haul trips).
- The **Suscol Mountain EIR** estimated phased construction (150 to 250 acres) generating 50 to 60 15-mile one-way trips per day. Peak harvest operations (560 acres) would generate 116 15-mile one-way trips per day.

² #P06-01508-ECPA, AES April 2011, SCH #2007062069 certified December 22, 2011

³ #P09-00176-ECPA, AES March 2012, SCH #2009102079 certified February 3, 2013

⁴ #P11-00205-ECPA, AES March 2016, SCH #2008052075 certified August 1, 2016

⁵ Napa County, 2024. Chappellet Vineyard, Agricultural Erosion Control Plan Application (ECPA) #P21-00206-ECPA. Available online at: <https://pbcs.cloud/index.php/s/mzQ7Pc9PzrJ4eag?dir=undefined&openfile=368320>. Accessed March 2025.

- The **Walt Ranch EIR** estimated phased construction (127 acres) generating 160 15-mile one-way trips per day. Peak harvest operations (507 acres) would generate 160 15-mile one-way trips per day.

Table 5-3 presents the estimated construction and operational emissions for the Circle S Ranch, Suscol Mountain, and Walt Ranch vineyard development projects. Variations in modeling results arise from differences in modeling platform and version, varying baseline conditions such as vegetation types and topography, as well as assumptions and inputs for each development project.

Table 5-3: Emissions from Vineyard Development and Operation (lbs./day)

Summary Report	ROG	NO _x	PM _{2.5}	PM ₁₀
Construction				
Circle S Ranch (150-acre development)	8.43 to 11.39	43.39 to 52.16	3.93 to 4.47	13.93 to 14.53
Suscol Mountain (150 + acre development)	9.43 to 11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Walt Ranch (127-acre development)	4.6	42.3	5.21	24.21
BAAQMD Construction Threshold	54	54	54	82
Exceeds?	No	No	No	No
Operation				
Circle S Ranch (400-acres)	7.78	2.85	0.80	4.22
Suscol Mountain (560-acres)	6.58	1.84	0.75	3.91
Walt Ranch (507-acres)	4.3	22.3	1.4	2.3
BAAQMD Operational Thresholds	54	54	54	82
Exceeds?	No	No	No	No

Sources: Circle-S Ranch Vineyard EIR 2011; Suscol Mountain Vineyard EIR 2013; Walt Ranch Vineyard EIR 2016

As shown in **Table 5-3**, emissions from the construction and operation of the Circle S Ranch, Suscol Mountain, and Walt Ranch vineyard development projects are below the Air District's thresholds of significance. The Proposed Project, which involves the development of only 9 acres of vineyards, is significantly smaller than the projects presented above. Therefore, its construction and operational emissions are expected to be significantly lower than those in **Table 5-3** and will remain below the Air District's thresholds of significance. Further, the Proposed Project would be required to implement BAAQMD's BMPs, as detailed in **Section 5.3.2** to control emissions of fugitive dust during construction. In accordance with the Air District's required BMPs, publicly visible signs will be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person is responsible for responding and taking corrective action within 48 hours. The Air District's General Air Pollution Complaints number is also required to be visible to ensure compliance with applicable regulations. There would be a less-than-significant impact, and no mitigation would be required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The nearest sensitive receptors to the Project Site are: a rural residential neighborhood located adjacent to the eastern boundary of the site (the nearest residence is approximately 100 feet east of the closest proposed vineyard block); and Irene M. Snow Elementary school, located approximately 0.4 miles northeast of the Project Site. As discussed in impact b)

construction and operation of the Proposed Project is not expected to generate substantial emissions of criteria air pollutants. Further, to minimize fugitive dust emissions during vineyard development, the Proposed Project would implement BMPs, as required by the Air District. As such, the Proposed Project would not expose sensitive receptors or a substantial number of people to pollutants, resulting in a less than significant impact, and no mitigation would be required.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact. Implementation of the Proposed Project would not involve the construction or operation of major odor sources or other emissions. Thus, the Proposed Project would not result in the exposure of sensitive receptors to objectionable odors. There would be no impact.

5.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

5.4.1 Environmental Setting

A Biological Resources Report was prepared for the Proposed Project in December of 2023 and is included as **Appendix A**.

Terrestrial Habitats

Terrestrial habitat types within the Project Site include developed, non-native grassland, blue gum grove, and coast live oak woodland. These habitats are described briefly below and detailed in Section 5.1 of the Biological Resources Reconnaissance Survey Report (included as **Appendix A**). A figure detailing the boundaries of habitats within the Project Site and within the proposed vineyard conversion area are shown in Figure A-3 and A-4 of **Appendix A**, respectively. Representative photographs are provided in Appendix D of the Biological Resources Reconnaissance Survey Report (**Appendix A**).

Developed

The developed portion of the Project Site is composed of existing vineyard blocks, two residences, various outbuildings and viticultural facilities, and access roads. The vegetation and soils are highly altered, consisting of overhanging native trees, landscape species, and disturbance tolerant herbs. The developed area totals 37.3 acres within the Project Site and approximately 4.3 acres of the proposed vineyard conversion area.

Non-native Grassland

This habitat is dominated by non-native grasses such as wild oat (*Avena barbata*), soft chess (*Bromus hordeaceus*), dogtail grass (*Cynosurus echinatus*), and Italian rye grass (*Festuca perennis*). Native wildflowers are also present in portions of the grassland. The Project Site contains 45.1 acres of this community type, of which 4.7 acres are within the proposed vineyard conversion area.

Blue Gum Grove

This vegetation alliance is dominated by one of several eucalyptus species, all of which are not native to North America. As is typical of blue gum groves because of allelopathic chemicals (chemicals that affect the growth of other plants) in fallen leaves and branches, the understory is low-growing and relatively bare, and composed of non-native, weedy species. The Project Site contains 1.0 acres of blue gum grove, none of which is within the proposed vineyard conversion area.

Coast Live Oak Woodland

The dominant tree in this habitat is coast live oak (*Quercus agrifolia*), with scattered cover of blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), and California bay (*Umbellularia californica*). Predominant understory species include poison oak (*Toxicodendron diversilobum*), rough hedgenettle (*Stachys rigida*), common bedstraw (*Galium aparine*), blue field madder (*Sherardia arvensis*), Italian thistle (*Carduus pycnocephalus*), and numerous non-native annual grasses. The Project Site contains 19.5 acres of coast live oak woodland, none of which is within the proposed vineyard conversion area.

Aquatic Habitats

Aquatic habitat types within the Project Site include seasonal wetlands and man-made reservoirs. These habitats are described briefly below and detailed in Section 5.1 of **Appendix A**. A figure detailing the

boundaries of habitats within the Project Site and within the proposed vineyard conversion area are shown in Figure A-3 and A-4 of **Appendix A**, respectively. Representative photographs are provided in Appendix D of **Appendix A**.

Seasonal Wetlands

In the Project Site, three seasonal wetlands collectively occupy 0.6 acre; these are entirely outside of the proposed vineyard conversion area. The vegetation in these features is dominated by hydrophytes including Italian rye grass (*Festuca perennis*), meadow barley (*Hordeum brachyantherum*), Mediterranean barley (*Hordeum marinum*), rabbit's-foot grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), poverty rush (*J. tenuis*), and seep monkeyflower (*Erythranthe guttata*). The soils support redoximorphic features, which are visible color patterns resulting from oxidation and reduction reactions that occur within soils that are saturated or otherwise inundated for significant periods of time. Likewise, wetland hydrology indicators included saturation and oxidized rhizospheres, which are visible coatings along plant roots indicative of consistent saturation.

Man-made Reservoirs

The Project Site contains three man-made reservoirs. The edges contain some emergent wetland vegetation, but this fringe is neither contiguous nor wider than two or three feet. Species in this fringe variably include overhanging Pacific willow (*Salix lasiandra*) and arroyo willow (*Salix lasiolepis*), with common spikerush (*Eleocharis macrostachya*), narrowleaf cattail (*Typha angustifolia*), and common cattail (*Typha latifolia*) rooted in the banks and shallows. These features are entirely outside of the proposed vineyard conversion area.

Wildlife Use and Movement

No unique habitat features such as wildlife nurseries were observed within the proposed vineyard expansion area. Wildlife use of this area is limited due to ongoing disturbance, conversion of habitat from its natural state, and access limitations from nearby roadways, fencing, and development. Wildlife may incidentally pass through the Project Site, specifically through the central-eastern portion of the Project Site where there is some connectivity between undeveloped lands to the north (grassland and oak woodland). However, no substantial wildlife corridors were observed during surveys completed in June of 2022 and April of 2023.

The California Essential Connectivity Project maps both 1) "Natural Landscape Blocks," or discrete areas of mostly natural land covers that support biodiversity, and 2) "Essential Connectivity Areas" that provide ecological connectivity between the former. The Project Site is not within a Natural Landscape Block or an Essential Connectivity Area (**Appendix A**).

Special-Status Species

Table 5-4 summarizes those special-status species with the potential to occur at the Project Site. A description of these species and information on those species not expected to occur at the Project Site are included in **Appendix A**.

Table 5-4: Special-Status Species with Potential to Occur at the Project Site

Species	Status*	Potential to Occur in Project Site	Potential to Occur in Vineyard Conversion Area
Plants			
<i>Agrostis hendersonii</i> Henderson's bentgrass	CRPR 3	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	CRPR 1B	Moderate potential to occur in rocky woodland and grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	CRPR 1B	Moderate potential to occur in the rocky woodland habitat in the Project Site.	No. No requisite habitat in conversion area.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	CRPR 1B	Moderate potential to occur in the rocky grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.
<i>Astragalus claranus</i> Clara Hunt's milk-vetch	FE; ST; CRPR 1B	Moderate potential to occur in the rocky woodland habitat in the Project Site.	No. No requisite habitat in conversion area.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE, SE, CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Castilleja ambigua</i> var. <i>ambigua</i> Johnny-nip	CRPR 4	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Castilleja ambigua</i> var. <i>meadii</i> Mead's owl's-clover	CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Downingia pusilla</i> dwarf downingia	CRPR 2B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Erigeron biolettii</i> streamside daisy	CRPR 3	Moderate potential to occur in the rocky woodland habitat in the Project Site.	No. No requisite habitat in conversion area.
<i>Eryngium jepsonii</i> Jepson's coyote thistle	CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Harmonia nutans</i> nodding harmonia	CRPR 4	Moderate potential to occur in rocky woodland and grassland habitat.	Moderate potential to occur in non-native grassland habitat.

Species	Status*	Potential to Occur in Project Site	Potential to Occur in Vineyard Conversion Area
			Confirmed absent through multiple years of surveys.
<i>Helianthella castanea</i> Diablo helianthella	CRPR 1B	Moderate potential to occur in rocky woodland and grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.
<i>Hemizonia congesta</i> <i>ssp. congesta</i> hayfield tarplant	CRPR 1B	Moderate potential to occur in the grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE, CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Legenere limosa</i> legenere	CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Leptosiphon aureus</i> bristly leptosiphon	CRPR 4, LR	Moderate potential to occur in rocky grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	FE, SE, CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	CRPR 3	Moderate potential to occur in areas of thin, rocky soils and low biomass that may support this species.	Moderate potential to occur in areas of thin, rocky soils and low biomass that may support this species. Confirmed absent through multiple years of surveys.
<i>Navarretia leucocephala</i> <i>ssp. pauciflora</i> few-flowered navarretia	FE, ST, CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Ranunculus lobbii</i> Lobb's buttercup	CRPR 4	High potential to occur on the edges of the reservoirs.	No. No requisite habitat in conversion area.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	CRPR 1B	High potential to occur on the edges of the reservoirs.	No. No requisite habitat in conversion area.
<i>Trifolium amoenum</i> showy rancheria clover	FE, CRPR 1B	Moderate potential to occur in the grassland habitat.	Moderate potential to occur in non-native grassland habitat. Confirmed absent through multiple years of surveys.

Species	Status*	Potential to Occur in Project Site	Potential to Occur in Vineyard Conversion Area
<i>Trifolium hydrophilum</i> saline clover	CRPR 1B	Moderate potential to occur in the seasonal wetlands in the Project Site.	No. No requisite habitat in conversion area.
<i>Viburnum ellipticum</i> oval-leaved viburnum	CRPR 2B	Moderate potential to occur in the woodlands in the Project Site.	No. No requisite habitat in conversion area.
Animals			
<i>Antrozous pallidus</i> pallid bat	SSC	Moderate potential to occur in the woodlands in the Project Site.	May forage overhead, but no potential to occupy the proposed vineyard conversion area.
<i>Taxidea taxus</i> American badger	SSC	Moderate potential to occur in oak woodland and non-native grassland habitat.	Moderate potential to occur in non-native grassland habitat.
<i>Buteo swainsoni</i> Swainson's hawk	ST	Moderate potential. The Project Site provides trees for nesting and open areas for foraging.	Moderate potential to forage within the proposed vineyard conversion area.
<i>Elanus leucurus</i> white-tailed kite	SFP	Observed foraging. Woodland areas within the Project Site provide suitable nesting trees, with adjacent open areas for foraging.	Moderate potential to forage within the proposed vineyard conversion area.
<i>Lanius ludovicianus</i> loggerhead shrike	SSC, LR	Moderate potential. The Project Site provides trees for nesting and open areas for foraging.	Moderate potential to forage within the proposed vineyard conversion area.
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	SSC	Moderate potential. The Project Site provides grassland suitable for nesting.	Moderate potential to forage within the proposed vineyard conversion area and nest within the non-native grassland.
<i>Actinemys marmorata</i> northwestern pond turtle**	SSC	Moderate potential to occur within the reservoirs.	Suitable habitat not present within the proposed vineyard conversion area, but may be transiently crossed by dispersing individuals.

*See **Appendix A** for a full description of status codes

** Note the western pond turtle (*Emys marmorata*) has been re-classified as two distinct species, the northwestern pond turtle and the southwestern pond turtle. The Project Site falls within the range of the northwestern pond turtle and is described as such for the purposes of this report. However, **Appendix A** utilizes the prior nomenclature as not all of CDFW's database reporting, including its most recent "State and Federally Listed Endangered and Threatened Animals Of California" list uses the updated nomenclature and corresponding status for this species.

Critical Habitat and Essential Fish Habitat

There is no critical habitat or essential fish habitat, as defined below, within the Project Site (**Appendix A**).

Nesting and Migratory Birds

Migratory birds and other birds of prey, protected under 50 CFR Part 10 of the Migratory Bird Treaty Act (MBTA, see below), have the potential to nest on and near the Project Site. The nesting season for raptors and other migratory birds occurs generally between February 1 and August 31.

5.4.2 Regulatory Framework

The following lists the various federal, state, and local environmental laws and regulations that apply to this project. An expanded regulatory framework is provided in Section 2 of **Appendix A**.

Federal

Federal Endangered Species Act: The Federal Endangered Species Act (FESA) protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The U.S. Fish & Wildlife Service (USFWS) and the National Oceanic and Atmosphere Administration, Fisheries Service (NOAA Fisheries) share responsibility for implementing FESA. Generally, USFWS manages terrestrial and freshwater species, while NOAA Fisheries is responsible for marine and anadromous species. Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take, which is defined as direct or indirect harm. If "take" of a listed species is incidental to an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present on the proposed project site and whether the proposed project will have a potentially significant impact upon such species. Under the FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]).

Migratory Bird Treaty Act: Migratory birds are protected under the MBTA. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law.

Bald and Golden Eagle Protection Act: The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington, where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald and golden eagles.

Clean Water Act (Sections 404 and 401): Any project that involves discharge of dredged or fill material into jurisdictional Waters of the U.S. must first obtain authorization from the U.S. Army Corps of Engineers

(USACE), under Section 404 of the CWA. Projects requiring a 404 permit under the CWA also require a Section 401 certification from the Regional Water Quality Control Board (RWQCB). The USEPA and State Water Board administer the National Pollutant Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more, however agricultural activities are exempted from the NPDES Construction General Permit.

State

California Department of Fish and Wildlife (CDFW): Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW. CDFW also maintains the ability to require an LSAA for ongoing diversions of water from a lake or stream.

CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in the California Natural Diversity Database (CNDDDB). CNDDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive.

The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the California Fish and Game Code designate special-status plant species and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

Porter-Cologne Water Quality Control Act: If a project does not require a federal CWA permit but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB may regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements (WDR). The San Francisco Bay RWQCB, which has jurisdiction over projects in the Napa River watershed, recently adopted the General Permit for Vineyard Properties in the Napa River and Sonoma Creek Watersheds to allow projects with the potential to contribute sediment and nutrient discharge from vineyards to comply with the WDRs (San Francisco Bay RWQCB, 2017). The General Permit outlines BMPs to control sediment discharge and storm runoff increases.

California Endangered Species Act: The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance state-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission.

The CESA authorizes that private entities may take listed species under FESA and CESA, pursuant to a federal incidental take permit issued in accordance with Section 10 of the FESA, if CDFW certifies that the incidental take statement or incidental take permit is consistent with the CESA (California Fish & Game Code § 2080.1[a]).

Local

Napa County General Plan and Napa County Code: The Napa County Baseline Data Report (NCBDR) identifies sensitive Napa County natural communities. In addition to those Land Cover Types identified by

CDFW, the NCBDR also identifies biotic communities of limited distribution that “encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation.”

Natural resource use in Napa County is also regulated by the Napa County General Plan. Applicable policies are listed in Section 2.2 of **Appendix A** and include measures protective of fish and wildlife, their habitat, and natural vegetation communities.

Napa County Code 18.108.025 requires stream setbacks for new land clearings for agricultural purposes. These setbacks range from 35 feet to 150 feet, depending on the topography.

Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than 5 percent): Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the County’s environmental sensitivity maps. Removal of trees six inches or greater diameter breast height cannot be removed until the proper permits have been approved by the decision-making body and tree removal has been specifically authorized. This code also specifies protections for unimpacted trees.

In 2019, the Napa County Board of Supervisors adopted the Water Quality and Tree Protection Ordinance, modifying Chapter 18.108 Conservation Regulations to provide additional protections to trees and water quality. The tree retention required by Chapter 18.108.027 in sensitive domestic water supply drainages was increased from 60 percent to 70 percent based on vegetation that existed within the parcel in 1993. For areas within the Agricultural Watershed zoning district (outside of sensitive water supply drainages), Chapter 18.108.020 subsections C and D were added that require a minimum of 70 percent canopy retention based on vegetation that existed within the parcel in 2016, and the preservation or mitigation for the removal of trees (within oak woodland/forest and/or coniferous forest land covers) at a minimum 3:1 ratio.

5.4.3 Environmental Evaluation

- a) **Would the project 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 U.S. Fish and Wildlife Service?**

Special-Status Plants

No Impact. As shown in **Table 5-4**, there are several special-status plants with the potential to occur within the Project Site as a whole, with eight having a moderate potential to occur within the vineyard conversion area. As described in **Appendix A**, botanical surveys occurred in more than one year during the identifiable window for these species. None of these plants were observed and are therefore considered absent from the Project Site. Therefore, there would be no impact to special-status plants.

Special-Status Wildlife

Less than Significant with Mitigation. As described in **Section 5.4.1**, the following special-status wildlife species have the potential to occur within the proposed vineyard conversion area:

- Pallid bat: may forage overhead in the proposed vineyard conversion area, may roost within the coast live oak woodland outside of the proposed vineyard.
- American badger: May occur within the non-native grassland habitat in the proposed vineyard conversion area.
- Swainson's hawk: May forage within the proposed vineyard conversion area and may nest in the coast live oak woodland or blue gum grove outside of the proposed vineyard.
- White-tailed kite: Observed foraging within the proposed vineyard conversion area and may nest in the coast live oak woodland or blue gum grove outside of the proposed vineyard.
- Loggerhead shrike: May forage within the proposed vineyard conversion area and may nest in the coast live oak woodland or blue gum grove outside of the proposed vineyard.
- Bryant's savannah sparrow: May occur within the non-native grassland habitat, including nesting.
- Northwestern pond turtle: May disperse through the proposed vineyard conversion area.

Each of these species is assessed below.

Pallid Bat: Tree removal would not occur. Therefore, loss of roost habitat for special-status bats, including pallid bat, would not occur. This species may forage overhead in the proposed vineyard conversion area. Following construction of the Proposed Project, this species could still forage overhead in the proposed vineyard conversion area. This would be a less-than-significant impact.

American Badger: This species or signs of this species were not observed during site visits. However, this species could occur on the Project Site in the future and could establish dens within the non-native grassland habitat within the proposed vineyard conversion area. Due to the small scale of the Proposed Project and adjacent development on the Project Site, loss of 4.7 acres of non-native grassland adjacent to existing development is not a significant loss of habitat for this species. However, use of construction equipment could result in injury or mortality if individuals or occupied dens are present within a work area. This would be a significant impact. A worker environmental awareness training program is outlined in **Mitigation Measure BIO-1** to ensure that construction personnel are familiar with those special-status wildlife that may occur within a work area and that personnel shall halt work in the event that an individual is observed within a work area. **Mitigation Measure BIO-2** identified in **Section 5.4.4** requires a pre-construction survey to confirm absence of American badger prior to initiation of work. Should a badger or badger den be observed, **Mitigation Measure BIO-2** requires establishment of a den buffer, or implementation of badger exclusion activities performed in coordination with CDFW. With inclusion of **Mitigation Measure BIO-1** and **BIO-2**, risk of injury or mortality would be avoided. This would be a less-than-significant impact after mitigation.

Swainson's Hawk: The Proposed Project would not result in tree removal, and therefore there would be no impacts to Swainson's hawk nesting habitat. This species may forage overhead in the proposed vineyard conversion area. Following construction of the Proposed Project, this species could still forage overhead in the proposed vineyard conversion area. This would be a less-than-significant impact.

Although no nesting habitat would be impacted, construction activities have the potential to result in sensory disturbance that could negatively impact nesting behavior or nesting success. This would be a

significant impact. A worker environmental awareness training program is outlined in **Mitigation Measure BIO-1** to ensure that construction personnel are familiar with those special-status wildlife that may occur within a work area and that personnel shall halt work in the event that an individual is observed within a work area. **Mitigation Measure BIO-3** further requires avoidance of construction during the Swainson's hawk nesting season, or conducting a pre-construction survey to confirm absence of Swainson's hawk nests prior to initiating work. Should a Swainson's hawk nest be observed, **Mitigation Measure BIO-3** requires establishment of a nest buffer. With inclusion of **Mitigation Measure BIO-1** and **BIO-3**, risk of injury or mortality would be avoided. This would be a less-than-significant impact after mitigation.

Northwestern Pond Turtle: Although northwestern pond turtle was not observed during site visits, the Project Site's reservoirs provide suitable aquatic habitat and the species may be present in the future. If pond turtles are present, upland nesting near the reservoirs may also occur. However, Project activities will avoid the reservoirs, including their immediate shorelines (along with basking substrates), reducing the risk of harm to adult pond turtles. Ground disturbance near the reservoirs has some potential to impact turtle nests in the substrate (if present) as well as adult turtles and/or hatchlings moving to/from the pond to upland areas. This would be a potentially significant impact. **Mitigation Measure BIO-4** would reduce this impact. This measure requires a pre-construction clearance survey and installation of exclusionary fencing. Should northwestern pond turtle be observed, **Mitigation Measure BIO-1** requires worker environmental awareness training to ensure all construction personnel are aware of this species and the proper measures to avoid impacts. This would be a less-than-significant impact after mitigation.

Critical Habitat and Essential Fish Habitat

No Impact. There is no critical habitat or essential fish habitat within the Project Site. Therefore, there would be no impact to critical habitat or essential fish habitat.

Migratory and Nesting Birds

Less than Significant with Mitigation. As discussed in **Section 5.4.1**, birds have the potential to nest in the vicinity of the proposed vineyard conversion area, including special-status white-tailed kite, loggerhead shrike, and Bryant's savannah sparrow. Bryant's savannah sparrow also has the potential to nest within non-native grasslands within the proposed vineyard conversion area. In addition to these special-status birds, migratory birds and their nests are protected under the MBTA, described in **Section 5.4.2**. Nesting birds in general are also afforded protection under California Fish and Game Code (**Section 5.4.2**). Birds have the potential to nest on and in the vicinity of the proposed vineyard conversion area. As discussed above, construction activities can result in sensory disturbance at nearby nests, and use of construction equipment could result in injury or mortality of nesting birds and their young, should an active nest be present within an impact area. This would be a significant impact. **Mitigation Measure BIO-5** requires avoidance of construction during the general nesting season, or conducting a pre-construction survey to confirm absence of nests prior to initiating work. Should a nest be observed, **Mitigation Measure BIO-5** requires establishment of a nest buffer. With inclusion of **Mitigation Measure BIO-5**, risk of injury or mortality would be avoided. This would be a less-than-significant impact after mitigation.

b) Would the project 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?

No Impact. The Proposed Project would impact 4.3 acres of developed habitat and 4.7 acres of non-native grassland. These habitats are not considered sensitive (**Appendix A**). Therefore, there would be no impact.

- c) **Would the project 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?**

Less than Significant with Mitigation. Aquatic resources on the Project Site include man-made reservoirs and seasonal wetlands. The vineyard conversion area avoids these features and maintains setbacks from these features exceeding Napa County setback ordinance requirements. Therefore, direct impacts to aquatic resources would not occur. As discussed further in **Section 5.10**, development of vineyards on slopes greater than 5 percent would be subject to Napa County regulatory requirements, including the preparation of an ECP. The ECP is included as a requirement in **Mitigation Measure HYD-1**, including consultation with Napa County on the need for the ECP and/or a grading permit, and the necessary BMPs for the Proposed Project. The ECP includes a vegetation clearing and retention analysis, a detailed map of temporary and permanent erosion control measures, and several survey requirements to ensure significant indirect impacts to aquatic resources would not occur. This would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

- d) **Would the project 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?**

Less than Significant Impact. As discussed in **Section 5.4.1**, wildlife may incidentally pass through the Project Site, but there are no wildlife corridors or nursery sites within the vineyard conversion area. The vineyard conversion area is largely developed and is subject to ongoing disturbance. The Project Site is also in an area with barriers to wildlife movement such as existing residences and roadways. This would be a less-than-significant impact, and no mitigation would be required.

- e) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. The Proposed Project is designed to be compliant with local policies and ordinances protecting biological resources, including adherence to setbacks for aquatic resources and avoidance of tree removal. The Proposed Project does not violate local policies or ordinances. There would be no impact.

- f) **Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No Impact. The Project Site is not within an adopted Habitat Conservation Plan or Natural Community Conservation Plan area. The Project Site further does not include land identified by the NCBDR as biotic communities of limited distribution. There would be no impact.

5.4.4 Mitigation Measures

BIO-1: Worker Environmental Awareness Training

If positive indications of site use by American badger, Swainson's hawk, or northwestern pond turtle are observed during pre-construction surveys, a biological education program shall also be provided by the qualified biologist to be presented to all personnel that will be present at the site during ground disturbance. Personnel shall complete the training prior to working on-site. The worker education

program shall include information regarding the identification of these species (including photographs), the potential for occurrence within work areas, the purpose of impact avoidance measures such as the exclusion fencing and importance of maintaining it, and specific measures being implemented to avoid impacts. Personnel will be instructed to halt all ground disturbance and immediately alert the qualified biologist if any of these species are observed in work areas over the course of the work.

BIO-2: American Badger

A pre-construction survey for badger and badger burrows/dens shall be performed by a qualified biologist on and within approximately 150 feet of the vineyard conversion area no more than 10 days prior to the initiation of ground disturbance or other disruptive activities associated with construction of the Proposed Project. If no badgers or sign of badgers are observed, no further action is necessary.

If survey results indicate that this species is present during the general breeding period (roughly spring through summer), the biologist should assess if young are present in any identified dens, e.g., using track plates or motion cameras. If young are deemed present, an exclusionary buffer should be placed around each occupied den until all young are independent; the size (radius) of the buffer should be determined by the biologist and should be at least 200 feet in the context of mechanized equipment use. Once young are independent or if badgers are found to be present during the nonbreeding period, use of the site should be discouraged using passive relocation techniques (e.g., placing one-way doors across den entrances) to remove badgers from areas to be impacted prior to the initiation of ground disturbance. Passive relocation methods shall be approved by CDFW. A report summarizing the results of the surveys and any measures taken to avoid or minimize impacts to American badgers will be provided to the State Water Board Deputy Director of the Division of Water Rights within 60 days of completing of construction activities on this project.

BIO-3: Swainson's Hawk

Initial ground disturbance shall occur from September 1 to February 28, outside of the local Swainson's hawk nesting season. If adhering to this work window is not feasible, a pre-construction nesting survey for Swainson's hawk shall be performed by a qualified biologist. This effort shall involve a minimum of three individual surveys, spaced at least one week (seven days) apart, prior to the initiation of Project activities. Individual surveys should follow the protocol outlined in "Recommended Timing and Methodology for Swainson's Hawk Nesting in California's Central Valley." Each survey shall cover the impact area and accessible/visible areas within approximately 0.5 mile of the impact area. Active Swainson's hawk nests shall be protected by a work exclusion buffer. The size of each buffer shall be determined by the qualified biologist. The buffer shall remain in place until all young in the nest have fledged and are independent of the nest, or it is confirmed as inactive by the biologist. A report summarizing the results of the surveys and any measures taken to avoid or minimize impacts to nesting Swainson's hawks will be provided to the Deputy Director for Water Rights within 60 days of completing project construction activities.

BIO-4: Northwestern Pond Turtle

A qualified biologist shall perform a presence/absence survey during the wet season, prior to April 1. Following a confirmation of absence of northwestern pond turtle from the proposed vineyard conversion area, exclusionary fencing shall be installed around the proposed vineyard conversion area. If northwestern pond turtle is observed, it shall be allowed to leave the proposed vineyard conversion area on its own.

Exclusion fencing shall be installed in such a manner as to preclude turtles from entering the proposed vineyard conversion area. The fencing shall have a minimum height above ground of 24 inches, and the bottom of the fence buried to a minimum depth of 4 inches. Erosion control fencing (silt fencing) may serve as the exclusion fence if it meets the requirements above. Specific location(s) of the fencing should be approved by a qualified biologist prior to installation, and inspected by the biologist following installation to ensure that it is effective. The fencing should remain installed until on-site mechanized ground disturbance is completed. Fencing shall be inspected by the biologist either in-person, or via photographs provided by the property owner prior to ground disturbance and bi-weekly during initial ground clearance. If the biologist determines the integrity of the fence is compromised, work shall halt until the biologist performs an additional clearance survey and the fence is repaired. A report summarizing the results of the surveys and any measures taken to avoid or minimize impacts to Northwestern pond turtles will be provided to the Deputy Director for Water Rights within 60 days of completing construction activities on this project.

BIO-5: Nesting Birds

Initial ground disturbance shall occur from September 1 to January 31, outside of the general bird nesting season. If adherence to this work window is not feasible, a pre-construction nesting bird survey shall be performed by a qualified biologist no more than 5 days prior to the initiation of ground disturbance. The survey shall cover the impact area and surrounding areas within 500 feet. If active bird nests are found during the survey, an appropriate no-disturbance buffer shall be established by the qualified biologist. Buffer sizes may vary dependent on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. The buffer shall be maintained until the biologist determines that the young have fledged and are independent of the nest, or the nest otherwise becomes inactive. A report summarizing the results of the surveys and any measures taken to avoid or minimize impacts to nesting birds will be provided to the Deputy Director for Water Rights within 60 days of completing construction activities on this project.

5.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

5.5.1 Environmental Setting

An Archeological Resources Report was prepared for the Proposed Project in August of 2023 and is included as **Appendix B**.

Prehistoric Setting

Recent archaeological studies in Napa Valley indicate habitation by native American groups as early as 11,000 years ago. Permanent settlements were located in river valleys, with mountains used seasonally for resource gathering. The local subsistence economy focused on hunting and gathering, with deer and acorns as primary food sources. Native American sites in the area feature midden deposits, stone, bone, wood tools, and flakes of obsidian and chert. Obsidian acquired from Napa Glass Mountain was the primary source of lithic material used in the Napa Valley, and indicates, in concentration, sites where task specific activities took place. Rock outcroppings may contain petroglyphs or were used as bedrock mortars. Archaeological remnants of habitation sites include midden soil deposits, stone tools, faunal and shellfish remains, bone and shell ornaments, fire-affected rock, and other cultural items. Well-preserved sites may feature house or dance floor depressions with packed earth floors. Evidence of general use by Native populations in southeastern Napa over the past 3,000 years has been found in the form of stone tools and flakes. The project area falls within the linguistic boundaries of the Patwin, though it is near the Wappo boundary, making it unclear which group inhabited the area in prehistory.

Archeological Context

The archaeological context of the region is outlined through different prehistoric periods:

- **Paleo-Indian Period (10,000 - 6,000 B.C.):** Early humans entered California, relying on hunting Pleistocene megafauna and lakeside activities. The dart and atlatl, along with fluted projectile points and chipped stone crescents, were used.
- **Lower Archaic Period (6,000 - 3,000 B.C.):** A warmer, drier climate led to a semi-sedentary lifestyle focusing more on plant foods and less on hunting. Milling stones were introduced.
- **Middle Archaic Period (3,000 - 1,000 B.C.):** The climate stabilized, leading to acorn processing and a diversified economy. Sedentary villages formed, with the Borax Lake Pattern focusing on seed collecting and hunting.
- **Upper Archaic Period (1,000 B.C. - A.D. 500):** Sociopolitical complexity and status distinctions emerged. Long-distance exchange systems developed, and the Houx Aspect of the Berkeley Pattern marked the period, focusing on hunting and acorn gathering.
- **Emergent Period (A.D. 500 - 1800):** The bow and arrow replaced the dart and atlatl, with well-established territorial boundaries and widespread exchange networks. The Augustine Pattern was marked by intensive fishing, hunting, acorn gathering, social stratification, and unique mortuary practices. Archaeological surveys identified hunting stations during this period.

Ethnographic Setting

The project area was historically occupied by the Southern Patwin (Southern Wintun), a politically autonomous group within the Wintun family of the Penutian linguistic group. Their territory extended from the Coastal Range Mountains near Clear Lake to the Sacramento River, and south to Suisun Bay. Patwin settlements, often near freshwater sources, included semi-subterranean earth-covered structures. They relied on hunting, fishing, and gathering, with acorns as a dietary staple, supplemented by seeds, berries, and game such as elk and deer. Obsidian tools were obtained from the Wappo to the north.

Ethnographic Patwin sites near the project area were located in Napa and along the Napa River, with the closest being Tcīme'nûkme and tū'lūka. The Patwin village of Suskol, situated south of the City of Napa, contained Native American burials, artifacts, and petroglyphs. By the early 1800s, Suskol was likely a satellite village of the "Napa tribelet" of the southern Patwin, which controlled the lower Napa Valley and parts of Vallejo. The tū'lūka site is recorded as archaeological site CA-Nap-29, and Suskol is recorded as CA-Nap-15/H. No ethnographic village sites are known to be in the immediate vicinity of the project area. The project area is located west of tū'lūka and northwest of Suskol, placing it near the ethnographic territories of the Coast Miwok and Wappo. Due to environmental changes and resource availability, linguistic and territorial boundaries fluctuated over time, and the project area may have been within any of these three linguistic boundaries at different points in history.

Historic Setting

The project area is located within the Mexican-era land grant of Entre Napa, originally granted to Nicolas Higuerra in 1836. Following the Treaty of Guadalupe Hidalgo in 1848, which ended the Mexican American War, many original land grants were subdivided and sold. In the 1850s, 848 acres of Entre Napa were confirmed to Nathan Coombs, part of which later became the City of Napa. Napa prospered in the mid-19th century through mining, ranching, lumbering, and viticulture, with transportation via river, stagecoach, and rail. The project area has remained agricultural, primarily consisting of vineyards. Historical maps from 1876 and 1895 show the project area under different ownership but do not indicate any buildings.

Geologic Setting and Buried Site Sensitivity

Buried archaeological sites are typically found within landforms dating to the Holocene era, during which humans first settled in California. The project area is located within the North Coast Ranges of California and consists of Tertiary volcanic flow rocks dating back to the Pliocene to Paleocene eras, both of which preceded the Holocene. As such, the materials naturally deposited within these horizons likely predate human occupation, indicating a low potential for buried archaeological resources. The soil in the area is split between two types: Forward and Kidd. In both cases, these soils are composed of weathered volcanic rock, which could impact the preservation or disturbance of archaeological resources. The Forward soil has a high runoff rating, making it more prone to erosion, which could increase the potential for the burial of archeological materials. The Kidd soil shows moderate erosion potential.

5.5.2 Regulatory Framework

Federal

National Register of Historic Places (NRHP): The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR 60.4 as follows.

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history;
- B. That are associated with the lives of persons significant in our past;

- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That has yielded, or may be likely to yield, information important to prehistory or history.

Native American Graves Protection and Repatriation Act (NAGPRA): NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items—human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American burials and cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

Archeological Resources Protection Act (ARPA): The ARPA of 1979 (Public Law 96-95; 16 USC 470aa-mm), provides for the protection of archaeological resources and sites which are on public and Indian lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data which were obtained before October 31, 1979. ARPA also provides for penalties for noncompliance and illegal trafficking.

State

California Environmental Quality Act: CEQA requires that, for projects financed by or requiring the discretionary approval of public agencies in California, the effects that a project has on historical and unique archaeological resources be considered (Public Resources Code (PRC) Section 21083.2). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 50201). The CEQA Guidelines (Section 15064.5) define three cases in which a property may qualify as a historical resource for the purpose of CEQA review:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
- The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the PRC, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- The lead agency determines that the resource may be a historical resource as defined in PRC §§ 5020.1(j), 5024.1, or significant as supported by substantial evidence in light of the whole record. Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:
 - 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - 2. Is associated with the lives of persons important in our past;
 - 3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
 - 4. Has yielded, or may be likely to yield, information important in prehistory or history.

Resources must retain integrity to be eligible for listing on the CRHR. Resources that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR and thus are significant historical resources for the purposes of CEQA (PRC Section 5024.1(d)(1)).

PRC Section 21083.2 governs the treatment of a unique archaeological resource, which is defined as “an archaeological artifact, object, or site about which it can be clearly demonstrated” that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
- It has a special and particular quality such as being the oldest of its type or the best example of its type
- It is directly associated with a scientifically recognized important prehistoric or historic event or person

Napa County General Plan: The Community Character Element of the Napa County General Plan includes policies pertaining to cultural resources:

Policy CC-17: Significant cultural resources are sites that are listed in or eligible for listing in either the National Register of Historic Places or the California Register of Historic Resources due to their potential to yield new information regarding prehistoric or historic people and events or due to their intrinsic or traditional cultural value.

Policy CC-18: Significant historical resources are buildings, structures, districts, and cultural landscapes that are designated Napa County Landmarks or listed in or eligible for listing in either the National Register of Historic Places or the California Register of Historic Resources. Owner consent is a prerequisite for designation as a County Landmark.

Policy CC-19: The County supports the identification and preservation of resources from the County’s historic and prehistoric periods.

Policy CC-23: The County supports continued research into and documentation of the county’s history and prehistory and shall protect significant cultural resources from inadvertent damage during grading, excavation, and construction activities.

Action Item CC-23.2: Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources:

- The Planning Department shall be notified immediately if any prehistoric, archaeological, or paleontological artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action.
- All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California’s Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Policy CC-26.5: When discretionary projects involve potential historic architectural resources, the County shall require an evaluation of the eligibility of the potential resources for inclusion in the NRHP and the CRHR by a qualified architectural historian.

5.5.3 Methodology

Records and Literature Search

The records and literature search conducted for the Proposed Project included a review of archaeological base maps, reports, and historical documents from the Archaeological Resource Service (ARS) and the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The records and literature search identified 18 previous cultural resource studies and surveys within a half-mile radius of the Project Site, with five recorded resources located within the radius. Two studies, conducted in 2005 and 2022, took place within the Project Site boundaries; however, they focused on the northern half of the property and did not survey the development area of the Proposed Project. The 2005 survey documented an obsidian tool-making workshop, including a potential obsidian tool, obsidian flakes, core fragments, and a possible hammerstone, distributed across two separate locations in close proximity. The sites are documented as 05-012-01 and 05-012-02, respectively. The subsequent study in 2022 relocated the obsidian workshop and confirmed its location. While neither location is within the development area of the Proposed Project, they are adjacent to its boundary. A review of historical maps from 1876 and 1895 shows the Project Site under different ownership but does not indicate any buildings within the site.

Surface Examination

A pedestrian survey of the Project Site was conducted on July 28, 2023, by qualified ARS employees. The survey covered the southern half of the Project Site including the area where the vineyard blocks are proposed, consisting of approximately 43.3-acres, and used 10-meter spaced transects that primarily follow the vineyard rows. In the area adjacent to the recorded resource, scraping was performed every meter without separating transects, to ensure that no surface constituents from the nearby site were present within the project area. Ground visibility was good due to minimal vegetation and the absence of trees. Soils across the surveyed area were consistent, with only minor variations in color. One-to-two-foot soil walls were observed around the perimeter of the vineyard blocks, suggesting that the original topsoil was likely excavated. Basalt, obsidian, pitchstone, and dacite were observed; however, none were identified as artifacts. No potentially significant archaeological features were found.

Summary

No artifacts, archaeological deposits, or features have been identified within the project area, and the non-alluvial soil composition makes the presence of buried archaeological resources unlikely. While steep slopes and high runoff could contribute to natural burial, prior vineyard excavations would likely have uncovered any resources. Although a previously recorded site is located near the western portion of the parcel, there is no evidence that prehistoric occupation extended into the project area. The land has no signs of significant historic use, and the likelihood of discovering isolated artifacts is low, with only rare, non-native, or unusual finds considered archaeologically significant.

5.5.4 Environmental Evaluation

- a) **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?**

No Impact. No recorded historic resources were identified within the Project Site, or within the half-mile radius surrounding the Project Site. As such, the Proposed Project would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. There would be no impact.

- b) **Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?**

Less than Significant with Mitigation. No artifacts, archaeological deposits, or features have been identified within the development area of the Proposed Project. The soils on the Project Site are not alluvium based, making the presence of buried archaeological resources unlikely. Additionally, the existing vineyards have undergone extensive ripping and disking, and any resources within the development area would likely have been discovered during this process. Cultural resources studies conducted in 2005 and 2022 identified a previously recorded site adjacent to the development area boundary, consisting of an obsidian tool-making workshop with artifacts distributed across two nearby locations (05-012-01 and 05-012-02). Any encroachment by construction equipment into the previously recorded site could result in a significant impact. Therefore, the implementation of **MM CULT-1** would ensure that any potential disturbance to this site from vineyard development and irrigation is avoided by requiring an archeologist to flag the site for avoidance. This will mitigate this potential impact to a less than significant level. Further, in the unlikely event that buried artifacts or features are inadvertently discovered during construction, **MM CULT-2** would require that work be halted in the vicinity of the discovery until any resources eligible for the NRHP or CRHR are properly evaluated and managed. With the implementation of **MM CULT-1** and **CULT-2**, impacts to archaeological resources would be less than significant.

- c) **Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

Less than Significant with Mitigation. No known human remains have been identified within the Project Site. If human remains are inadvertently uncovered, **MM CULT-3** would ensure that all work in the vicinity of the discovery is halted, and the County Coroner and a qualified archaeologist are notified to conduct an evaluation, in compliance with CEQA Guidelines Section 15064.5(f) and California Health and Safety Code Section 7050.5. Project-related ground disturbance in the vicinity of the find shall not resume until the process outlined in CEQA Guidelines Section 15064.5(c) has been completed. With the implementation of **MM CULT-3**, impacts would be less than significant.

5.5.5 Mitigation Measures

CULT-1: To protect the previously recorded archaeological sites (05-012-01 and 05-012-02) from potential disturbance due to the Proposed Project activities, the following measures shall be implemented:

- Prior to construction, a qualified archaeologist shall flag the general area of the recorded site, establishing a 10-foot buffer around the recorded boundaries.
- After flagging, a cautionary boundary using orange fencing shall be installed around the flagged area to clearly delineate the area of sensitivity, ensuring that construction activities do not encroach on the site.

- Prior to working on the site, construction personnel shall complete cultural resource sensitivity training. This training shall acknowledge the presence of culturally sensitive resources on the site, identify the location and purpose of the fencing, and instruct personnel to avoid activity within these areas.
- Upon completion of construction activities, the boundaries and flagging should be removed to restore the site. Periodic spot checks, especially during any heavy machinery usage near the site, may be necessary to ensure that no inadvertent disturbance occurs.
- A photographic record shall be maintained that documents the pre-construction condition, protective fencing, and post-construction condition of each resource.
- If it is determined that the project encroaches into the site boundaries, the project plans shall be revised to exclude the site from any disturbance.

CULT-2: If archaeological resources are inadvertently discovered, all finds would be subject to CEQA Guidelines 15064.5 and PRC 21083.2. Procedures for inadvertent discovery include the following:

- All work within 50 feet of the find shall be halted until the significance of the find can be evaluated in accordance with NRHP and CRHR criteria by an archaeologist.
- If any find is determined to be significant, then representatives of Napa County shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan shall be prepared by an archaeologist which outlines the recovery of the resource, analysis and reporting of the find. The Treatment Plan shall be submitted to Napa County for review and approval prior to resuming construction.
- All significant cultural materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to the current professional standards.
- Copies of all documentation related to the find shall be provided to the Deputy Director for Water Rights within 60 days of completion of documentation.

CULT-3: If human remains are encountered during construction activities, Napa County shall comply with Section 15064.5 (e) (1) of the CEQA Guidelines and PRC Section 5097.98. All project-related ground disturbance within 100 feet of the find shall be halted until the county coroner and a qualified archeologist have been notified. If the remains are determined to be Native American, the coroner/archeologist will notify the NAHC to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in Section 15064.5 (e) has been completed. Copies of all documentation related to the human remains shall be provided to the Deputy Director for Water Rights within 60 days of completion of documentation.

5.6 ENERGY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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?	☐	☐	☒	☐

5.6.1 Environmental Setting

The production of electricity requires the conversion of energy stored in natural resources such as water, wind, oil, gas, coal, solar radiation, certain minerals (for nuclear power), and geothermal energy. Energy consumed in the vicinity of the Project Site is currently attributed to vehicles traveling on local roadways, the use of electricity and natural gas in nearby residences, and electricity used for other land uses such as schools and commercial buildings. Production of energy and energy use both result in pollution and depletion of these renewable and nonrenewable resources.

The County's primary electricity provider is Pacific Gas & Electric (PG&E), which has partnered with MCE (a local not-for-profit renewable electricity provider) to deliver electricity to homes and businesses in the County. PG&E is the sole provider of natural gas to the County. In Napa County, the California Energy Commission (CEC) reported an annual electrical consumption of approximately 1029.11 million kWh in 2022. Of the 1029.11 million kWh consumed, approximately 642.94 million kWh was from non-residential use and approximately 386.18 million kWh was from residential use (CEC, 2025).

5.6.2 Regulatory Framework

Local

Napa County General Plan: The Conservation Element of the Napa County General Plan (Napa County, 2009) outlines the following goals and policies applicable to the Project Site:

Goal CON-16: Promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally.

5.6.3 Environmental Evaluation

- a) **Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than Significant Impact. Construction of the proposed project would require some heavy equipment for site preparation, such as graders and excavators. This energy usage would be minimal and limited to the construction period. 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, the Proposed Project would require some additional energy to maintain and harvest 9 acres of vineyard during operations. However, the workforce that maintains the existing 22 acres of vineyard on the Project Site is expected to be able to also maintain the proposed 9 acres of vineyard, so no additional employees or vehicle trips to the site that would be required. There are no unusual maintenance activities associated with the Proposed Project and therefore it would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The environmental impacts to energy resources would be less than significant, and no mitigation would be required.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. Nearly two fifths of California’s energy consumption is credited to the state’s transportation sector (U.S. Energy Information Administration [EIA], 2025). 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 is the second largest consumer of motor gasoline in the country (EIA, 2025). In Napa County, agricultural off-road equipment (not including irrigation pumps) accounted for approximately 46 percent of agricultural emissions in 2019, with the percentage anticipated to decrease by 20 percent through 2045 (Napa County, 2024b).

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, which mandated a 10 percent 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 the USEPA and CARB such as Pavley II/LEV III from California’s Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) Greenhouse Gas (GHG) Regulation. Further, construction sites will need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes the 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 (CCR Title 13 § 2485). The Proposed Project would comply with these State requirements and the air quality BMPs presented in **Section 5.3**. The Proposed Project is on private property zoned for agriculture and would not influence or obstruct any plans for renewable energy or energy efficiency or impede progress towards achieving goals and targets and therefore, impacts from the Proposed Project would be less than significant, and no mitigation would be required.

5.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

5.7.1 Environmental Setting

Geological Setting

Napa County is within the California Coast Range Geomorphic Province (Napa County WICC, 2025). A site visit was completed for the Project Site, as discussed in **Section 5.4**. No unique geological features were observed.

Seismic Risk

The West Napa Fault, a late quaternary fault, crosses the Project Site and is considered potentially active (USGS, 2025a). The Project Site is also partially within an Alquist-Priolo Fault Zone, including a portion of the proposed vineyard conversion area (CDC, 2025).

Soils

The following soils are present within the Project Site (NRCS, 2025):

- Clear Lake clay, drained, 0 to 2 percent slopes: This soil is poorly drained with a high runoff class that is prone to ponding, but not flooding. This is considered a hydric soil. This soil type is present on the Project Site but is outside of the proposed vineyard conversion area.
- Forward silt loam, 5 to 39 percent slopes: This soil is well drained with a high runoff class that is not prone to flooding or ponding and is not considered a hydric soil. This soil is present within the proposed vineyard conversion area.
- Forward-Kidd complex, 11 to 60 percent slopes: This soil is well drained with a medium runoff class that is not prone to flooding or ponding and is not considered a hydric soil. This soil is present within the proposed vineyard conversion area.
- Haire loam, 2 to 9 percent slopes: This soil type is present on the Project Site but is outside of the proposed vineyard conversion area.

Erosion and Landslides

The risk of soil erosion is based upon a mixture of conditions, such as frequency of severe rain events, steep slopes, erosive soils, lack of vegetation, and strong winds. On the Project Site, moderate to steep slopes increase the risk of erosion. The factors associated with the risk of landslides are similar to the associated with soil erosion, but also include risks associated with seismic shaking. In addition to steeper slopes, the Project Site is within an area with potential for seismic shaking, thus increasing landslide risk. The USGS maintains documentation of historic landslide occurrences, as well as the risk of landslides, rated on a scale of 1 to 5, with 1 being low to no risk and 5 being the most severe risk. While no landslides have been documented on the Project Site, it is within an area evaluated as having a landslide risk of 3 to 5 (USGS, 2025b).

Paleontological Setting

The UC Museum of Paleontology Specimens was reviewed for the presence of paleontological resources within the County (UCMP, 2025). There are 65 recorded paleontological resources within the greater Napa County. Locality data indicates that the majority of these resources are within the Mt. George or Berryessa area. One nearby resource was identified nearby: a plant located in Napa City Park (UCMP, 2025).

5.7.2 Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act: The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act; formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972 after the 1971 San Fernando earthquake, requires the delineation of zones along active and potentially active faults in California. The California Geological Survey defines an “active” fault as one that exhibits evidence of activity during the last 11,000 years. Faults that exhibit evidence of Quaternary activity (within the last 1.6 million years) are considered to be “potentially active.” The purpose of the Alquist-Priolo Act is to regulate

development on or near fault traces to reduce hazards associated with fault ruptures and to prohibit the location of most structures for human occupancy across these traces.

Seismic Hazards Mapping Act: The Seismic Hazards Mapping Act was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. This act requires a state geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within the portions of those zones where they have jurisdiction. Before a development permit is granted by a city, county or other local permitting agency for a site within a seismic hazard zone, a geotechnical investigation must be conducted, and appropriate mitigation measures must be incorporated into the project's design.

Local

Napa County General Plan: The Conservation Element of the Napa County General Plan (Napa County, 2009) addresses the County's goals and policies related to geological conditions and soils. Applicable policies include a policy to limit development in environmentally sensitive areas and geologically hazardous areas.

Napa County Erosion Control Plan: An ECP is required for agricultural projects (including the planting of vineyards) involving grading and earthmoving activities on slopes over 5 percent. Requirements regarding ECPs are codified in Napa County Municipal Code Chapter 18.108.080.

5.7.3 Environmental Evaluation

a) **Would the project 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.**

Less than Significant Impact. The proposed vineyard conversion area is within an earthquake fault zone and is crossed by a potentially active fault. However, development within this area would be limited to an expansion of the existing vineyard. No new structures are proposed, and there would be no increase in human activity on the Project Site associated with the Proposed Project. Thus, risks of loss, injury, or death associated with potential fault rupture would not be increased by the Proposed Project. This would be a less-than-significant impact, and no mitigation would be required.

- ii. **Strong seismic ground shaking?**

Less than Significant Impact. The proposed vineyard conversion area is crossed by a potentially active fault and thus may be subject to strong seismic ground shaking. However, development within this area would be limited to an expansion of the existing vineyard. No new structures are proposed, and there would be no increase in human activity on the Project Site associated with the Proposed Project. Thus, risks of loss, injury, or death associated with strong seismic shaking would not be increased by the Proposed Project. This would be a less-than-significant impact, and no mitigation would be required.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. The Project Site is within a seismically active area and is within an area where liquefaction is considered a seismic-related risk (ABAG, 2001). However, as discussed above, no new structures are proposed, and there would be no increase in human activity on the Project Site associated with the Proposed Project. Thus, risks of loss, injury, or death associated with seismic risk, including liquefaction would not be increased by the Proposed Project. This would be a less-than-significant impact, and no mitigation would be required.

iv. Landslides?

Less than Significant with Mitigation. The Project Site is within an area with an increased landslide risk due to both steeper slopes and seismic risk. As discussed above, no new structures are proposed, and there would be no increase in human activity on the Project Site associated with the Proposed Project. Thus, risks of loss, injury, or death associated with landslides would not be increased by the Proposed Project. Further, the Proposed Project will be required by Napa County and **Mitigation Measure HYD-1** to prepare an ECP, triggered by ground disturbance in areas exceeding 5 percent slopes. The ECP would be developed in coordination with Napa County and would require that the project be designed to be stable based upon the site-specific soil and topographical conditions. This would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant with Mitigation. The Proposed Project would require earthmoving activities that would scrape existing vegetation, thus exposing bare soils. Exposure of bare soils increases the risk of erosion and risk of topsoil loss. The Proposed Project would be subject to a County ECP per County regulations and **Mitigation Measure HYD-1**, described in **Section 5.10**, which requires no-net-increase in erosion as a condition of approval. This requirement is usually met by the planting of cover crops to stabilize soils and may include other erosion control measures, such as the use of straw wattles, straw bale dikes, or infield diversions. The ECP would be prepared by a licensed engineer with consideration of site-specific soils, topography, and vegetation considerations. With consideration of regulatory requirements, the project would not result in significant soil erosion or loss of topsoil. This would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

c) Would the project 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?

Less than Significant with Mitigation. As discussed under (a) above, the Proposed Project could result in unstable soils leading to increased risk of erosion, liquefaction, or landslide if not designed properly. The Proposed Project would be subject to a County ECP (**Mitigation Measure HYD-1**) to ensure the project is designed to be operationally stable. With consideration of required construction and operational design and BMP requirements, the Proposed Project would be designed to avoid landslide, lateral spreading, subsidence, liquefaction and collapse. This would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. Soils within the proposed vineyard conversion area include Forward silt loam, 5 to 39 percent slopes and Forward-Kidd complex, 11 to 60 percent slopes. Expansive soils generally have a significant clay component. Soils within the proposed vineyard conversion area have a typical profile that includes silt, loam, and gravel and are therefore not expected to exhibit expansive behaviors. Further, as discussed above, the Proposed Project does not involve the construction of new structures or other improvements that would introduce additional human activity on the Project Site. Thus, risks associated with expansive soils are considered minimal, and the potential for significant direct or indirect risks to life or property would not occur. There would be no impact.

e) Would the project 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?

No Impact. The Proposed Project does not involve the installation of new septic tanks or wastewater disposal systems. Further, the Proposed Project would not generate an increase in wastewater flows treated by existing systems. There would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. There are no unique geological features within the Project Site; therefore, there would be no impact to unique geological resources. There are no known paleontological resources documented on the Project Site. The Proposed Project would not involve intensive or deep earthmoving activities that would present a high risk of disrupting previously unknown paleontological resources. However, there is a possibility of unanticipated discovery of paleontological resources during earthmoving activities. Therefore, **Mitigation Measure GEO-1** is identified in **Section 5.7.4** to reduce this impact. **Mitigation Measure GEO-1** requires work to stop in the event of unanticipated discovery of a paleontological resource until a paleontologist has evaluated the resource and completed the necessary conservatory actions to prevent loss of significant paleontological resources. Following mitigation, this would be a less-than-significant impact.

5.7.4 Mitigation Measures

GEO-1: Paleontological Resource Discovery

If vertebrae fossils (e.g., teeth, bones etc.) are unearthed by the construction crew anywhere on the Project Site, the finds should be set aside and all excavation activity shall cease at the specific place of discovery until a paleontologist has assessed the find and, if deemed significant, salvaged the find in a timely manner. The decision to conduct paleontological salvage operations will be determined by the paleontologist. Finds determined significant by the paleontologist shall be deposited with a recognized repository such as the University of California Museum of Paleontology.

5.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

5.8.1 Environmental Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. GHGs that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂, CH₄, and N₂O are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing are associated with agricultural practices and landfills. N₂O is produced by microbial processes in soil and water, including those reactions that occur in soils where fertilizers that contain nitrogen have been applied, in fossil fuel combustion, and in other chemical processes. In addition to natural sources, human activities are exerting a substantial and growing influence on climate by changing the composition of the atmosphere and the ocean, and by modifying the land surface through deforestation and urbanization that reduces carbon capture and decreases albedo (the fraction of light that a surface reflects). GHGs are typically quantified in terms of “carbon dioxide equivalent” (CO₂e), a common measure used to compare the emissions of various GHGs based on their global warming potential. This measure is usually presented in metric tons (MT) and is expressed as MTCO₂e.

5.8.2 Regulatory Framework

Federal

Massachusetts v. EPA, 549 U.S. 497 (2007): In *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the CAA. The Court also acknowledged that climate change is caused, in part, by human activities. The Supreme Court’s ruling paved the way for the regulation of GHG emissions by the USEPA under the CAA. The USEPA has enacted regulations that address GHG emissions, including, but not limited to, mandatory GHG reporting requirements, carbon pollution standards for power plants, and air pollution standards for oil and natural gas.

State

Assembly Bill (AB) 32: California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and required CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MT CO₂e. The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. Senate Bill 32 (SB 32) was signed by the governor on September 8, 2016, to extend AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). To ensure consistency with SB 32 CARB adopted another update to the Scoping Plan in December 2017. The 2017 Scoping Plan update highlights California's progress toward meeting the "near-term" 2030 GHG emission reduction goals defined in the original Scoping Plan. The strategy includes extending the Cap-and-Trade program post-2020, implementing the Short-Lived Climate Pollutant Plan and Mobile Source Strategy and increasing renewable energy generation and improving energy efficiency. Under the updated 2022 Scoping Plan, seven key areas were identified: transportation sustainability, clean electricity grid, sustainable manufacturing and buildings, carbon dioxide removal and capture, short-lived climate pollutants (non-combustion gases), and natural and working lands.

AB 1279: The California Climate Crisis Act (AB 1279) requires the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. The bill also requires California to reduce statewide anthropogenic GHG emissions by 85 percent below 1990 levels, and directs CARB to work with relevant state agencies to achieve these goals.

Local

Bay Area Air Quality Management District: The BAAD's 2022 CEQA Air Quality Guidelines provide recommended procedures for evaluating potential air quality and climate impacts during the environmental review process for land use projects, consistent with CEQA requirements. The 2022 BAAD CEQA Air Quality Guidelines state that a project's GHG emissions would be cumulatively considerable if it did not contribute its "fair share" towards minimizing GHG emissions. Because construction emissions are temporary and variable, BAAD has not developed a quantitative threshold of significance for construction-related GHG emissions. However, it is recommended that projects quantify and disclose GHG emissions that would occur during construction. For a project to have a less-than-significant impact related to operational GHG emissions, it must include, at a minimum, the following project design elements:

1. Buildings:
 - a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

- b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2. Transportation:

- a. The project will achieve a reduction in project-generated vehicle miles travelled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory: Evaluating Transportation Impacts in CEQA*:
 - i. Residential projects: 15 percent below the existing VMT per capita
 - ii. Office projects: 15 percent below the existing VMT per employee
 - iii. Retail projects: no net increase in existing VMT
- b. The project will achieve compliance with off-street electric vehicle (EV) requirements in the most recently adopted version of CALGreen Tier 2.

Alternatively, projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

5.8.3 Environmental Evaluation

- a) **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than Significant Impact. The Proposed Project would generate GHG emissions during development and maintenance of the proposed vineyards, which would contribute to global warming. Although Napa County is in the process of developing a Regional Climate Action and Adaptation Plan (RCAAP), the plan has not yet been finalized and adopted and therefore cannot be used to evaluate the Proposed Project's GHG emissions. As such, BAAD thresholds were used to evaluate the Proposed Project's GHG emissions. BAAD has not established a quantitative significance threshold for construction-related GHG emissions. Construction emissions associated with the Proposed Project are temporary and expected to be minor. The 9 acres of proposed vineyard are located in grassland, and no trees, shrubs or other vegetation would need to be removed, so the use of large dozers or chippers would not be required, and no loss of trees that sequester carbon would occur. Therefore, consistent with BAAD guidance, construction emissions are considered to be less than significant. To achieve a less-than-significant impact for operational GHG emissions, the project must incorporate specific design elements required by BAAD, as outlined in **Section 5.8.2**. The Proposed Project's alignment with the required design elements is summarized in **Table 5-5**.

Table 5-5: Consistency with BAAD GHG Thresholds of Significance

Design Elements Required for New Land Use Projects to Incorporate that will Achieve Carbon Neutrality by 2045	Is the Project Consistent?
a) Buildings	
a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).	Consistent. The Proposed Project will not involve new buildings and therefore will not include new natural gas appliances or plumbing.
a. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.	Consistent. While the Proposed Project does not involve new buildings that will use energy, some energy expenditure will be required for tractors to farm (e.g., mow, disk, harvest) the vineyards. By locating the proposed vineyards immediately adjacent to existing vineyard blocks, the same equipment can farm both existing and proposed vineyards and equipment travel time that would otherwise result in inefficient energy use would be minimized.
2. Transportation	
a. The project will achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target that reflects the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory: Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT	Consistent. The Proposed Project does not include new residential, office, or retail uses, and thus would not generate VMT associated with these uses. By locating the proposed vineyards immediately adjacent to existing vineyard blocks and would not represent a substantial increase in vineyard acreage, no additional workers would be required to farm both existing and proposed vineyards, which will avoid increases in VMT associated with future worker trips.
b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.	Consistent. The Proposed Project does not include parking and therefore is not subject to the EV requirements outlined in CALGreen Tier 2.

As demonstrated above, the Proposed Project is consistent with BAAD required design elements and therefore would contribute its “fair share” towards achieving the State’s long term climate goals. There would be a less than significant impact, and no mitigation would be required.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The BAAD approach to evaluating GHG emissions uses a “fair share” methodology to determine if an individual project’s GHG emissions are cumulatively considerable. If a

project contributes its fair share towards achieving the State's long-term GHG reduction goals, the lead agency can find that the project's impact on climate change is not significant. A project that meets the BAAD qualitative thresholds would not conflict with applicable plans, policies, or regulations aimed at reducing GHG emissions. As shown in **Table 5-5**, the Proposed Project demonstrates consistency with the BAAD thresholds of significance. Therefore, the Proposed Project would not conflict with a plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The impact would be less than significant.

5.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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 reasonably 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 § 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 wildland fires?	☐	☐	☒	☐

5.9.1 Environmental Setting

A database search of various environmental agency lists was conducted for the Project Site and the surrounding area (within a one-mile radius) to identify potential hazardous contamination sites. Based on the database search, no hazardous waste sites are identified on the Project Site or in its vicinity in any of the following databases:

- USEPA EnviroMapper website (USEPA, 2025a)
- California Department of Toxic Substance Control's (DTSC) Hazardous Waste and Substances Sites List (known as the Cortese List) (DTSC, 2025)
- USEPA's Superfund National Priorities List (USEPA, 2025b).

The Proposed Project is not located within 0.25 miles of any existing or proposed schools, or near an airport or airstrip. The nearest schools are the Irene M Snow Elementary School, approximately 0.7 miles northeast of the Project Site, and Shearer TK-8 School, approximately 1.8 miles northeast. The nearest public airport is the Napa County Airport, located approximately 4 miles southeast of the Project Site.

According to the Napa County General Plan, the Proposed Project is in a Local Responsibility Area (LRA) with no mapped fire hazard severity. See **Section 5.20** for further details on wildfire impacts.

5.9.2 Regulatory Framework

State

California Code of Regulations, Title 22: Title 22 of the California Code of Regulations encompasses regulations for the identification, classification, and management of hazardous waste. It includes stringent requirements for hazardous waste treatment, storage, and disposal facilities. Compliance with Title 22 ensures that hazardous waste is managed in a manner that minimizes risks to public health and the environment.

Local

Napa County General Plan: The Safety Element of the Napa County General Plan (Napa County, 2023) outlines the following policies applicable to the Proposed Project:

Policy SAF-8.4: Review and remedy sites suspected or known to be contaminated by hazardous materials.

Policy SAF-10.1: Collaborate with other agencies for implementation of wildfire and hazard plans. The County shall work with other agencies and organizations to implement the Community Wildfire Protection Plan (2021) and Multi-Jurisdictional Hazard Mitigation Plan (2020).

Napa County Community Wildfire Protection Plan (CWPP): The Napa County CWPP (Napa County, 2021) was created to help define, plan, and prioritize actions to limit damage from the inevitability of wildland fire. The CWPP identifies areas of high hazard in which topography, fuel, and weather create the potential for extreme fire behavior regardless of socio-political boundaries.

Napa County Division of Environmental Health AB 2185: AB 2185 created the Business Plan Program, commonly known as the Hazardous Materials Business Plan (HMBP) or Community Right-to-Know Program (CalEPA, 2020). The program's purpose is to inform the public about hazardous materials being

handled at local businesses, inform emergency responders about the hazardous materials handled at a facility, and train employees on handling releases of hazardous materials. The Napa County Division of Environmental Health began countywide implementation of this program in 1989, requiring businesses to have an HMBP if they store hazardous materials at levels exceeding the minimum reportable quantities (500 lbs for solids, 55 gallons for liquids, and 200 cubic feet for compressed gases). The HMBP consists of owner/operator information, an inventory of chemicals, and an emergency response plan and maps. Each HMBP is reviewed by the Napa County Division of Environmental Health and kept on file with the Napa County Division of Environmental Health and the California Environmental Reporting System (CERS).

5.9.3 Environmental Evaluation

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. Installation of the Proposed Project and subsequent vineyard operation and maintenance would require a variety of equipment and vehicles that use fuel and other petroleum-based products such as oil and transmission fluids, which are considered hazardous materials. Ongoing vineyard operations would also involve the transport and use of common agricultural chemicals such as herbicides, mildewcides, and fertilizers to the site, which are considered hazardous materials. Herbicide applicators must be licensed by the state, and the Napa County Agricultural Commissioner enforces application of pesticides and regulates applicators.

Storage of small quantities of hazardous materials could occur on-site for the proposed vineyard, and would be handled consistent with the ongoing operations for the existing 22-acre vineyard. Cleaning and washing of chemical application equipment would occur on the Project Site as needed. Fertilizers (i.e., nitrogen magnesium, boron, and zinc) could be distributed through the drip system as needed. Mildewcides (i.e., Sonata, paraffinic oil, wettable sulfur, and sulfur dust) would be applied as needed during appropriate times of year, consistent with the existing vineyards on the property. AB 2185, or HMBP, has been implemented in Napa County since 1989 in order to attain higher community transparency and safety regarding hazardous materials. There are an estimated 1,250 facilities throughout Napa County that are subject to the regulatory requirements of this program and are inspected triennially (Napa County, n.d.). The Project Site is not currently a part of the CERS for storage of hazardous materials, indicating that the existing vineyards do not meet the minimum hazardous materials storage capacity to require a HMBP (CalEPA, 2025). It is expected that the increase of up to 9 acres of vineyards would result in a less-than-significant increase in the amounts and types of agrichemicals used on the Project Site. Any future, but currently unanticipated, expansions in the amount or type of agrichemical usage would be conducted within the parameters of the HMBP.

The Natural Resource Conservation Service recommends a minimum 50-foot-wide vegetated buffer from aquatic resources, due to the ability of vegetation to effectively entrap and filter chemicals, nutrients, and sediment from the farmed lands. The Project Site contains 0.6 acres of seasonal wetland and the man-made reservoir ponds used for vineyard irrigation. The seasonal wetlands are over 700 feet east of and the existing reservoirs are located greater than 100 feet uphill from the proposed conversion areas. The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because there are no streams or wetlands located within 50 feet of the development area and only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Therefore, impacts associated with

the routine transport, use, or disposal of hazardous materials would be less than significant, and no mitigation would be required.

- b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Less than Significant Impact. As discussed in **Question A**, the Proposed Project would require a variety of equipment and vehicles that use fuel and other petroleum-based products which are considered hazardous materials, and ongoing vineyard operations would involve the transport and use of chemicals such as herbicides, mildewcides, and fertilizers to the site that are considered hazardous materials. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal laws. These conditions reduce the risk of accidents and would help avoid the release of hazardous materials. By following all applicable federal and state regulations, the impacts of the Proposed Project on the risk of release of hazardous materials into the environment would be less than significant, and no mitigation would be required.

- c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

No Impact. The Project Site is not within one-quarter mile of an existing or proposed school. There would be no impact.

- d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

No Impact. No sites included on a list of hazardous material sites (Cortese List) are present on the project site, so the proposed project would not create a significant hazard to the public or environment. There would be no impact.

- e) Would the project be 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?**

No Impact. The Project Site is not located within an airport land use plan or within two miles of a public airport and therefore could not result in a safety hazard or excessive noise. There would be no impact.

- f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The Proposed Project involves the installation of up to 9 acres of vineyards on a property that contains existing vineyards. Construction and operation of the Proposed Project will not result in a significant increase in traffic, as it is anticipated that the existing workforce that farms the existing vineyards would be used to farm the proposed blocks. The Proposed Project is within the boundaries of the Napa County CWPP and would not involve any activities that would interfere with the implementation of the plan or any emergency evacuation plan. There would be no impact.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. While the Project Site contains fuels (e.g. grasses) that are susceptible to wildland fire, the Project Site is not within a designated fire hazard severity zone and the risk of wildland fire is similar to that of the surrounding area. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary during project construction. Operation and maintenance activities would be similar to activities already occurring on the project site within existing vineyard areas. Implementing the Proposed Project would not involve any activities that would increase the risk of loss, injury, or death involving wildland fires. Since the implementation of the Proposed Project would cause minimal change to fire risk, the impact would be less than significant, and no mitigation would be required.

5.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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, in a manner which would:				
i. result in a 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 offsite;	☐	☒	☐	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
f) Would the change in water volume and/or the pattern of seasonal flows in the affected watercourse result in:				
i. A significant cumulative reduction in the water supply downstream of the diversion?	☐	☐	☒	☐
ii. A significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?	☐	☐	☐	☒
iii. A significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?	☐	☐	☒	☐
iv. A significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?	☐	☐	☐	☒
v. A substantial increase or threat from invasive, non-native plants and wildlife?	☐	☐	☐	☒

5.10.1 Environmental Setting

Surface Water

The Project Site is within the Carneros Creek-Frontal San Pablo Bay Estuaries watershed (HUC-12: 180500020501) (USEPA, 2025). The USEPA does not monitor any individual surface waters within this watershed. However, the USEPA has evaluated the Carneros Creek subwatershed, which is a drainage basin that includes Carneros Creek and the land that drains into it. This subwatershed is within the larger Carneros Creek-Frontal San Pablo Bay Estuaries watershed and is considered impaired by the USEPA due to pathogens (USEPA, 2024). It is not formally 303(d) listed as impaired under the CWA. To address pathogen impairments within the region, a Total Maximum Daily Load (TMDL) was established in 2006 for the Napa River and its tributaries, which implements density-based targets and zero discharge of untreated or inadequately treated human waste (San Francisco Bay RWQCB, 2006). Surface waters on the Project Site are limited to the man-made ponds and associated wetlands.

Groundwater

The Project Site is not underlain by a confined groundwater basin, however, two groundwater basins occur nearby; the Napa-Sonoma Valley: Napa Valley sub-basin and the Napa-Sonoma Valley: Napa-Sonoma Lowlands sub-basin (CDWR, 2025). Both of these basins have a 20-year trend of decreasing groundwater levels of 0-2.5 feet per year (CDWR, 2025).

Drainage and Flooding

The Project Site is outside of designated 100- and 500- year floodplains (FEMA, 2025). There is no drainage infrastructure on the Project Site; therefore, runoff is directed by the site's topography. Previous grading has occurred on the Project Site during development of the existing vineyard and ponds. The Project Site is not within a tsunami zone (CDC, 2025b) and is not near a surface water of a size such that there would be risk of seiche.

5.10.2 Regulatory Framework

Federal

Clean Water Act: CWA (33 U.S. Code [USC] § 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” USEPA is delegated as the administrative agency under the CWA. Relevant sections of the CWA are as follows.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired water bodies, rank these impaired bodies based on severity of contamination and uses for the waters, and develop water quality management strategies, usually in the form of total maximum daily loads for the contaminant(s) of concern.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to Waters of the U.S., to obtain certification from the state that the discharge will comply with other provisions of the CWA.

The Federal Antidegradation Policy was adopted as part of the 1972 amendments to the CWA. Federal policy (Code of Federal Regulations [CFR], Title 40, Part 131.12) specifies that each state must develop, adopt, and retain an anti-degradation policy to protect the minimum level of surface water quality necessary to support existing uses. Each state must also develop procedures to implement the anti-degradation policy through water quality management processes. Each state anti-degradation policy must include implementation methods consistent with the provisions outlined in 40 CFR § 131.12.

State

Porter-Cologne Water Quality Control Act: The Porter-Cologne Water Quality Control Act provides the basis for surface water and groundwater quality regulation within California. The act established the authority of the SWRCB and the nine RWQCBs. The act requires the State, through the SWRCB and the RWQCBs, to designate beneficial uses of surface waters and groundwater and specify water quality objectives designed to protect those uses. These water quality objectives are presented in the Regional Water Quality Control Plans. The surface water quality standards for the State of California include both narrative and numerical water quality objectives to keep California’s waters swimmable, fishable, drinkable, and suitable for use by industry, agriculture, and the citizens of the state.

Sustainable Groundwater Management Act: The intent of the California Sustainable Groundwater Management Act (SGMA; Water Code § 10720 et seq.) is to “enhance local management of groundwater consistent with rights to use or store groundwater... [and] to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater.” The SGMA states that “any local agency or combination of local agencies overlying a groundwater basin may elect to be a groundwater sustainability agency for that basin” (Water Code § 10723). A groundwater

sustainability agency will be formed within each groundwater basin to prepare and implement a plan for long-term groundwater sustainability.

Local

Napa County General Plan: Water resources are addressed within the Conservation Element of the County's General Plan. The General Plan outlines goals and policies related to water quality, water use, water conservation, and aquatic habitats. Emphasis is also placed on long-term sustainable water management practices in the face of climate change.

Policy CON-4: The County recognizes that preserving watershed open space is consistent with and critical to the support of agriculture and agricultural preservation goals.

5.10.3 Environmental Evaluation

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation. The Proposed Project would not directly impact (e.g., dredge or fill) surface waters and therefore would not be subject to a waste discharge requirement. However, construction would include ground-disturbing activities such as grading that could lead to erosion of topsoil or accidental release of loose soils or common construction chemicals, such as equipment fuels. This could result in impacts to water quality. As noted above, development of vineyards on slopes greater than 5 percent is subject to a County ECP in order to ensure the project is designed to not increase erosion or surface water runoff rates or volumes. Acquisition of the ECP and any necessary grading permits is required in **Mitigation Measure HYD-1**. An ECP includes a vegetation clearing and retention analysis, a detailed map of temporary and permanent erosion control measures, and several survey requirements to ensure significant indirect impacts to aquatic resources would not occur. Further, the ECP requires setback from surface waters to allow for infiltration and treatment of runoff prior to reaching surface waters. The setbacks to surface waters would also serve to provide protection from routine use of agricultural chemicals such as pesticides and herbicides. Thus, use of heavy equipment during construction or common agricultural chemicals during operation of the Proposed Project would not pose a significant risk to surface water quality. With implementation of **Mitigation Measure HYD-1**, surface water quality impacts would be reduced to less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The Proposed Project does not involve the use of groundwater supplies. No additional surface waters would be diverted beyond those already evaluated and approved as part of License 7328 and no new impervious surfaces are proposed, so the proposed project would not impact groundwater recharge. Vineyard development would include ripping and disking that would loosen soils to prepare for planting, and ongoing operation would include maintaining cover crops in accordance with the County's ECP. These activities would help prevent soil compaction and maintain recharge rates. As a result, the Project would not substantially affect groundwater recharge or groundwater levels. Impacts would be less than significant.

c) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

i. **result in a substantial erosion or siltation on- or off-site?**

Less than Significant with Mitigation. As discussed above and in **Section 5.7.3**, the Proposed Project has the potential to increase the risk of erosion, but this impact would be reduced to a less-than-significant level with implementation of **Mitigation Measure HYD-1**. Alterations to surface waters, including alterations to the course of a stream or river would not occur, and no impervious surfaces are proposed. With implementation of **Mitigation Measure HYD-1**, this impact would be reduced to a less-than-significant impact.

ii. **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

Less than Significant with Mitigation. As discussed in **Section 5.7.3** and above, the Proposed Project does not involve impacts to a floodplain and would not add new impervious surfaces. Changes to drainage patterns would be limited to minimal and localized grading pursuant to a County ECP (**Mitigation Measure HYD-1**) to add a small expansion to an existing vineyard. Napa County ECPs require no-net-increase in the rate of surface runoff as a condition of approval. This requirement is usually met by planting of cover crops to match or exceed pre-project conditions and may include other drainage infrastructure, such as infield diversions or retention basins. The ECP would be prepared by a licensed engineer with consideration of site-specific soils, topography, and vegetation. This would not involve actions that would substantially increase the rate or amount of surface runoff. There would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

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?**

Less than Significant with Mitigation. There are no planned or existing stormwater drainage systems that would receive runoff from the Project Site. As discussed in **Section 5.7.3** and above, the Proposed Project would be subject to a County ECP (**Mitigation Measure HYD-1**) to ensure the project is designed to be operationally stable and not result in an increase in runoff. With consideration of regulatory requirements, the Proposed Project would not be a source of substantial or polluted runoff. There would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

iv. **Impede or redirect flood flow?**

Less than Significant with Mitigation. The Project Site is outside of the 100- and 500- year floodplain and therefore would not impede or re-direct flood flows within a floodplain. Changes to drainage patterns would be limited to minimal and localized grading pursuant to a County ECP (**Mitigation Measure HYD-1**) to expand an existing vineyard and would not involve impoundment or re-direction of flood flows. Alterations to surface waters, including alterations to the course of a stream or river would not occur, and no impervious surfaces are proposed. This would be a less-than-significant impact with inclusion of **Mitigation Measure HYD-1**.

d) Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The Project Site is not within a flood zone, tsunami zone, or seiche zone. There would be no impact.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. As described above, the Proposed Project does not propose the use of groundwater and thus would not obstruct a sustainable groundwater management plan. As further discussed above, the Proposed Project would not pose a significant risk to water quality and therefore would not obstruct implementation of a water quality control plan. This would be a less than significant impact, and no mitigation would be required.

f) Would the change in water volume and/or the pattern of seasonal flows in the affected watercourse result in:

i. A significant cumulative reduction in the water supply downstream of the diversion?

Less than Significant Impact. The Proposed Project does not include a change in the diversion amount, timing, or rate already evaluated and approved under License 7328. Therefore, there would be no changes in the allowable water volume diverted as a result of the Proposed Project. Use of the full diversion amount was already assessed and determined not to have a significant cumulative reduction in water supply downstream of the diversion. License 7328 does not include mandatory minimum bypass flows, although the reservoirs may spill in the winter and contribute to downstream flows. Recently reported annual water use under License 7328 has ranged from 7 to 24 afa, which is below the total licensed allotment of 43 afa, which indicates that water is carried over in the reservoirs each year. Since issuance of License 7328, water has been consistently used every year, although the total of 43 afa may not be used annually due to increasing water efficiencies of irrigation systems. Water use reports indicate that irrigation is conducted via micro-sprinkler or drip irrigation. Future planting of an additional 9 acres of vineyard may result in some additional water extracted from the existing reservoirs during the summer irrigation season. However, because the reservoirs only spill during the winter, any additional water usage under the Proposed Project is not expected to result in significant changes to the patterns of seasonal flow that would result in cumulative reductions in downstream water supplies.

The Applicant will continue to comply with all measures required by the State Water Board pursuant to License 7328 to prevent changes in water volume or patterns of seasonal flow. As the Proposed Project would result in a limited increase in the amount of water put to beneficial use and would be within the previously assessed and licensed diversion amount, this impact would be less than significant, and no mitigation would be necessary.

ii. A significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?

No Impact. The Proposed Project does not include a change in the diversion amount, timing, or rate already evaluated and approved under License 7328. Use of the full diversion amount was already assessed and determined not to have a significant cumulative reduction in water supply downstream of

the diversion. Therefore, there would be no changes in water volume or the pattern of seasonal flows within a watercourse that would result in a reduction in water supply to senior water rights holders. There would be no impact.

iii. A significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?

Less than Significant Impact. The Proposed Project does not include a change in the diversion amount, timing, or rate already evaluated and approved under License 7328. As discussed above, some additional water may be pumped from the reservoirs during the summer irrigation season compared to existing conditions, once the additional 9 acres of vineyard are planted within the POU. However, as noted above, water has consistently been utilized under the existing license. As the Proposed Project does not propose to change the withdrawal rate, season, or amount compared to what was previously assessed and approved under License 7328, no new impacts would occur beyond what was previously assessed and approved. The conditions of License 7328, including the withdrawal rate, season, and amount, were set as these conditions were found to prevent significant impacts to aquatic resources such as availability of aquatic and riparian habitat. Further, the reservoirs do not spill during the irrigation season and therefore are not contributing to riparian flows even under historical use of License 7328. Therefore, there would be no significant changes in water volume or the pattern of seasonal flows within a watercourse that would result in a reduction in available riparian habitat. There would be a less-than-significant impact.

iv. A significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?

No Impact. The Proposed Project does not include a change in the diversion amount, timing, or rate already evaluated and approved under License 7328. Therefore, there would be no changes in water volume or the pattern of seasonal flows within a watercourse that would result in seasonal water temperature changes. There would be no impact.

v. A substantial increase or threat from invasive, non-native plants and wildlife?

No Impact. The Proposed Project does not include a change in the diversion amount, timing, or rate already evaluated and approved under License 7328. Therefore, there would be no changes in water volume or the pattern of seasonal flows within a watercourse that would result in an increase or threat from invasive plants or wildlife. Agricultural practices throughout the POU would be unchanged from existing conditions, and the proposed vineyard conversion would involve removal of numerous non-native species, planting of vineyard, and managing to reduce the spread of weedy species compared to existing conditions. No invasive species would be directly introduced by the Proposed Project. There would be no impact.

5.10.4 Mitigation Measures

HYD-1: Prior to the start of construction of the Proposed Project, right holder shall consult with Napa County to determine whether either a grading permit or approval of an ECP prepared in accordance with Napa County's Conservation Regulations will be required for the POU expansion. Based on preliminary discussions with Napa County, approximately 0.8 acre within the vineyard conversion area may exceed the County's five percent slope threshold and may require preparation and approval of an ECP. The ECP shall be consistent with the Napa County use requirements in areas with slopes greater than five percent.

For any project elements for which either an approved grading permit and/or an ECP from the County of Napa are required, copies of the required permits and/or approvals shall be submitted to the Deputy Director for Water Rights for review and consideration of approval prior to starting construction. If either an ECP or a grading permit is not required, right holder shall provide the Division a copy of a waiver (or waivers) from Napa County for those elements prior to any project construction activity within the place of use.

5.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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?	☐	☐	☒	☐

5.11.1 Environmental Setting

The Project Site is located within Napa County, and is adjacent to the City of Napa boundary on its eastern side. The Project Site is predominantly undeveloped except for single-family residences, outbuildings, and associated infrastructure in the central portion of the site, and access roads throughout. The southern half features vineyard blocks. The Project Site is designated Agriculture, Watershed, & Open Space in the County General Plan and zoned Agricultural Watershed (AW) in the Zoning Ordinance (Napa County, 2013; Napa County GIS, 2025). Areas zoned AW are primarily used for agriculture or located within watershed areas, reservoirs, and floodplain tributaries. The purpose of the AW zoning is to protect these areas from development that could negatively impact agricultural, watershed, and floodplain uses (Napa County Municipal Code, 2025).

Surrounding land uses include agricultural areas to the north, west, and south of the Project Site. The City of Napa limits are immediately to the east, with land uses featuring a mix of low and very low-density residential uses, as designated by the City General Plan (City of Napa, 2018).

5.11.2 Regulatory Framework

Local

Napa County General Plan: The Agricultural Preservation and Land Use Element of the Napa County General Plan includes the following goals and policies that apply to the Proposed Project:

Goal AG/LU-1: Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County.

Goal AG/LU-1: Support the economic viability of agriculture, including grape growing, winemaking, other types of agriculture, and supporting industries to ensure the preservation of agricultural lands.

Policy AG/LU-4: The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development.

Additional conservation and natural resource goals and policies are listed in Section 2.2 of **Appendix A** and include measures protective of fish and wildlife, their habitat, and natural vegetation communities.

5.11.3 Environmental Evaluation

a) Would the project physically divide an established community?

No Impact. Development on the Project Site would be limited to the expansion of an existing vineyard by 9 additional acres, contained within a single parcel. The Proposed Project does not involve the construction of transportation facilities or any other infrastructure that could physically divide a community. There would be no impact.

b) Would the project 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?

Less than Significant Impact. Development on the Project Site would be limited to the expansion of an existing vineyard by 9 additional acres. The proposed agricultural uses are consistent with the General Plan designation and AW zoning for the parcel. Surrounding land uses within the County to the north, south, and west are also agricultural uses. The Proposed Project would be consistent with these established land uses for the Project Site and surrounding vicinity, and would be consistent with agricultural-related General Plan policies. There are additional natural resources and conservation policies contained within the Conservation Element of the County's General Plan (listed in Section 2.2 of **Appendix A**). These policies focus on preserving habitat connectivity, sensitive grasslands and habitats, and oak woodlands. The 9 acres proposed for future conversion are non-native grassland and do not support special-status plants or wildlife. Therefore, the Proposed Project is also consistent with the conservation goals and policies within the General Plan. There would be a less-than-significant impact, and no mitigation would be required.

5.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be a 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?	☐	☐	☐	☒

5.12.1 Environmental Setting

Various minerals have been historically found in Napa County, including chromite, asbestos, clays, magnesite, manganese, mercury, mineral water, obsidian, petroleum, pumice, gold and silver, and quarry rock (Napa County Baseline Data Report, 2005a). Areas near the Napa Quarry are identified as having significant aggregate resources (mineral resource zone [MRZ]-2). However, the Project Site is approximately 2.5 miles west from the quarry and is not in a designated mineral resources zone (CGS, 2013).

5.12.2 Regulatory Setting

Surface Mining and Reclamation Act: The Surface Mining and Reclamation Act of 1975 requires all jurisdictions to incorporate mapped mineral resources designations approved by the California Mining and Geology Board within their general plans. The Surface Mining and Reclamation Act was enacted to limit new development in areas with significant mineral deposits. The California Department of Conservation's Office of Mine Reclamation and the California Mining and Geology Board are jointly charged with ensuring proper administration of the act's requirements. The California Mining and Geology Board circulates regulations to clarify and interpret the act's provisions and also serves as a policy and appeals board.

5.12.3 Environmental Evaluation

- a) **Would the project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?**

No Impact. The Project Site is not within an identified MRZ and there are no known mineral resources within the near vicinity. There would be no impact.

- b) **Would the project 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?**

No Impact. There are no mineral resource recovery sites near the Project Site delineated on the Napa County General Plan or other land use plans for the area. There would be no impact.

5.13 NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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?	☐	☐	☐	☒

5.13.1 Environmental Setting

Potentially significant sources of noise within Napa County include highways and freeways; primary arterials and major local streets. The nearest airport is the Napa County Airport, located approximately 4 miles southeast of the Project Site. Typical noise levels on agricultural land, as measured from a distance of 50 feet, range from 75 to 95 dBA, with an average of approximately 84 dBA (Napa County Baseline Data Report, 2005). This is considered the baseline level of noise at the Project Site during peak periods of operational activity, such as pruning and harvest.

Sensitive receptors may include residences, schools, and hospitals. The nearest sensitive receptor is a residence located adjacent to the Project Site and approximately 100 feet east of the nearest proposed vineyard block.

5.13.2 Regulatory Framework

Local

Napa County Code: NCC Section 2.94.030, also known as the 'Right to Farm' Ordinance, identifies discomforts and inconveniences that come with living around agricultural lands, including: noise, odors, dust, chemicals, smoke, insects, operation of machinery during any 24-hour period, aircraft operations, and storage and disposal of manure. These inconveniences are expected and seen as a normal and necessary aspect of living in a county with a strong rural character and healthy agricultural sector under the Right to Farm Act. As per NCC § 8.16.090, agricultural operations are exempt from noise regulations. All mechanical devices, apparatus, or equipment associated with agricultural operations conducted on

agricultural property are exempt. It should be noted that this exemption does not apply to the construction phase of agricultural projects.

NCC Section 8.16.080 outlines the specific types of noise prohibited and the limitations on construction activities. Where technically and economically feasible, operating any tools or equipment used in construction or demolition work is restricted to the hours and noise levels outlined in **Table 5-6** below.

Table 5-6: Noise Limits for Construction Activities

Time	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Daily: 7 p.m. to 7 a.m.	60 dBA	65 dBA	70 dBA

5.13.3 Environmental Evaluation

- a) **Would the project result in 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?**

Less than Significant Impact. The Proposed Project consists of agricultural uses on agricultural land. Therefore all ongoing operations are protected by the Right to Farm as outlined in NCC § 2.94.030. Temporary construction operations could cause an increase in ambient noise levels above baseline conditions, and are subject to Napa County Noise Ordinance (Chapter 8.16.080). The proposed 9-acre vineyard area is grassland or previously graded (see **Section 5.4**) and does not contain trees or tree canopy. Therefore, the following types of equipment may be used for the implementation of the Proposed Project: backhoe, bulldozer, excavator/shovel, grader, loader, scarifier, scraper, shovel, spike driver, and trucks. Because no trees would need to be removed, chainsaws and woodchippers, some of the loudest construction equipment, would not be required for the Proposed Project. **Table 5-7** outlines the typical noise levels from construction equipment at 50 feet away.

Table 5-7: Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source	Equipment	Typical Noise Level (dBA) at 50 feet from Source
Backhoe	80	Scarifier	83
Bulldozer	85	Scraper	89
Excavator/Shovel	82	Shovel	82
Grader	85	Spike driver	77
Loader	85	Truck	88

Source: Napa County Baseline Data Report, 2005.

The nearest residential sensitive receptor is approximately 100 feet east of the closest proposed vineyard block; the equipment noise levels shown in **Table 5-7** above are for distances of 50 feet. Noise from stationary sources, such as excavators, attenuates (lessens) at rate of 6 - 9 dBA per doubling of distance from the source, depending on the environmental conditions (e.g., atmospheric conditions, noise barriers). An attenuation factor of 6 dBA per doubling of distance is appropriate for the Project Site given

the only major sound-blocking feature between the Project Site and the nearest sensitive receptors is the existing vineyard block. The attenuation factor is one component of calculating the perceived noise level, as noise does not attenuate in a linear fashion. Based on the logarithmic nature of noise attenuation, and a conservative attenuation factor of 6 dBA, the maximum noise level that would be experienced at the nearest sensitive receptor during construction is approximately 51 dBA, which is below the construction noise limits in NCC. Under the NCC, construction noise up to 75dBA during the daytime (7 a.m. to 7 p.m.) and up to 60 dBA during the nighttime (7 p.m. to 7 a.m.) is compatible with residential uses. The Proposed Project would be required to adhere to the hours of construction activity limitations within Napa County's noise ordinance. Given the temporary nature of the construction operation, adherence to hours of operation limitations, and the current operational conditions experienced by the nearest sensitive receptor, impacts to ambient noise levels in the vicinity, this impact is considered less than significant, and no mitigation would be required.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. There is potential for the Proposed Project to generate some limited and temporary groundborne vibration above baseline conditions during construction operations. However, the Proposed Project would not require the construction activities and equipment that produce the highest levels of vibration such as blasting or compactors. Given the discussion from **Question A** and assuming compliance with measures identified in Napa County's noise ordinance for construction-related noise, impacts would be temporary and less than significant, and no mitigation would be required.

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?

No Impact. The Proposed Project is not located within the vicinity of a private airstrip, an airport land use plan, or within two miles of a public airport or public use airport. There would be no impact.

5.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial 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?	☐	☐	☐	☒

5.14.1 Environmental Setting

The Project Site is located in an agricultural region of unincorporated Napa County. The closest population center is the City of Napa, less than 2 miles northeast of the Project Site. There is one single-family residential unit on the Project Site. There is a small rural residential neighborhood directly east of the Project Site.

5.14.2 Regulatory Framework

Local

Napa County General Plan: The Housing Element of the Napa County General Plan outlines the following policies applicable to the Project Site:

Policy H-4d: Consistent with Agricultural Preservation and Land Use Element Policy AG/LU-15.5, continue to promote planning concepts and zoning standards, such as coverage and separation/buffering standards, to minimize the impact of new housing on County agricultural lands and conflicts between future residences and agricultural uses, including wineries.

Policy H-4h: Manage housing growth to maximize protection of agricultural lands and recognize the County's limited ability to provide services.

5.14.3 Environmental Evaluation

- a) **Would the project induce substantial 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)?**

No Impact. The Proposed Project does not include the construction of new homes or businesses and would not require the extension of roads or infrastructure that could directly or indirectly induce 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 vineyard operation and maintenance would not generate an increase in the number of workers on the Project Site on an ongoing basis. Therefore, the Proposed Project would not induce unplanned population growth in the Proposed Project vicinity or greater region, either directly or indirectly. The Proposed Project would have no impact.

- b) **Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The Proposed Project seeks to expand the POU in order to develop and irrigate up to 9 acres of additional vineyards. These vineyards would be placed on undeveloped private land, adjacent to existing vineyard blocks. The Proposed Project would not displace any people or housing and would therefore have no impact.

5.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

5.15.1 Environmental Setting

The Project Site receives fire protection and emergency medical services (EMS) from the Napa County Fire Department. The fire station nearest to the Project Site is Station #210 - Carneros, a volunteer station. Police protection is provided by the Napa County Sheriff's Department. Napa County Unified School District provides K-12 grade education for the Project Site.

5.15.2 Environmental Evaluation

a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

i. **Fire protection?**

No Impact. The Proposed Project would result in the continued use of the Project Site for agricultural purposes and would not generate additional demand for fire protection. There would be no impact.

ii. **Police protection?**

No Impact. The Proposed Project would result in the continued use of the Project Site for agricultural purposes and would not generate additional demand for police protection. There would be no impact.

iii. Schools?

No Impact. The Proposed Project would result in the continued use of the Project Site for agricultural purposes and would not generate additional demand for schools. There would be no impact.

iv. Parks?

No Impact. The Proposed Project would result in the continued use of the Project Site for agricultural purposes and would not generate additional demand for parks. This is further discussed in **Section 5.16**. There would be no impact.

v. Other public facilities?

No Impact. The Proposed Project would result in the continued use of the Project Site for agricultural purposes and would not generate additional demand for other public facilities. There would be no impact.

5.16 RECREATION

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

5.16.1 Environmental Setting

The Proposed Project is located on private land and there are no public recreational facilities on the property. The closest parks to the Project Site are Laurel Park located 1.3 miles north of the Project Site within the City of Napa and Kennedy Park located 1.5 miles east of the Project Site across SR 121. There are also many recreational opportunities associated with the Napa Valley, including Lake Berryessa northeast of the Project Site and Sugarloaf State Park to the northwest, but none are located within the immediate vicinity of the Project Site.

5.16.2 Environmental Evaluation

- a) **Would the project 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?**

No Impact. The Proposed Project would not lead to a population increase and thence would not lead to an increase in neighborhood or park recreational use. There would be no impact on the physical deterioration of existing parks or recreational facilities.

- b) **Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The Proposed Project seeks to expand the authorized POU and to plant up to 9 acres of additional vineyards on a privately-held property. The Proposed Project would not include nor require the construction or expansion of recreational facilities and there would be no impact.

5.17 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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) Conflict or be inconsistent with CEQA Guidelines § 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?	☐	☐	☐	☒

5.17.1 Environmental Setting

The Project Site is located 0.9 miles north of Hwy 12 and 0.4 miles west of Hwy 121, both of which are four-lane freeways that provide regional access to the Project Site. Local access is available via a network of smaller county roads. Foster Road, which branches off from the Hwy 12 and Hwy 121 intersection, also known as the “Carneros Junction”, runs parallel to the easternmost point of the Project Site and is designated as a collector road by Napa County. Grandview Drive runs adjacent to the southern and eastern boundaries of the Project Site and provides direct access to the site.

5.17.2 Regulatory Framework

Federal

Federal Highway Administration (FHWA): FHWA regulates the construction, maintenance, and operation of the nation's roadways. FHWA guidelines ensure that transportation projects funded or overseen by the federal government comply with safety standards, minimize environmental impacts, and enhance mobility. Compliance with FHWA standards is required for any project impacting federal highways or receiving federal transportation funds.

State

California Department of Transportation (Caltrans): Caltrans is responsible for the design, construction, maintenance, and operation of the California state highway system. Caltrans regulations and guidelines govern traffic management, road safety, and environmental protection for projects affecting state highways. Any roadwork or infrastructure improvements within state highway right-of-way must comply with Caltrans standards.

Senate Bill 743: SB 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and GHG reductions. The provisions of SB 743 became effective on July 1, 2020. Under SB 743, automobile delay, traditionally measured as level of service (LOS), is no longer used to establish the significance of transportation impacts under CEQA. Instead, impacts are determined by evaluating how VMT would change with implementation of a project.

In accordance with SB 743, CEQA Guidelines Section 15064.3, subdivision (b) was adopted in December 2018. The Office of Planning and Research (OPR) published its *Technical Advisory on Evaluating Transportation Impacts in CEQA Guidelines* (Technical Guidelines) to provide agencies with guidance in implementing CEQA Guidelines Section 15064.3. The Technical Guidelines include screening criteria to help determine if a land use project requires a quantitative analysis of vehicle miles traveled (VMT), or if it can be presumed to have a less-than-significant transportation impact based on project characteristics. One screening criterion addresses "small projects," defined by OPR as projects generating fewer than 110 trips per day. These projects are generally assumed to result in a less-than-significant transportation impact. OPR's rationale is based on CEQA's categorical exemption for additions of up to 10,000 square feet in areas with existing public infrastructure, where such additions typically generate about 110–124 daily trips. Therefore, absent substantial evidence to the contrary, projects generating fewer than 110 trips are not expected to cause significant transportation impacts.

Local

Napa County General Plan: The Circulation Element of the Napa County General Plan includes policies pertaining to transportation and traffic:

Policy CIR-7: All applicants for development projects or modifications thereto shall be required to evaluate the vehicle miles traveled (VMT) associated with their projects, in order to determine the projects' environmental impacts pursuant to the California Environmental Quality Act. Applicants shall specify feasible measures to reduce a proposed project's VMT and shall provide an estimate of the VMT reduction that would result from each measure. Upon the effective date of the pertinent State CEQA Guidelines, 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.

Napa County Traffic Impact Study (TIS) Guidelines: The Napa County TIS Guidelines outline the criteria for determining when a TIS is required for a project. The guidelines help assess whether a project may cause adverse physical or operational changes to local transportation facilities, such as roads, bridges, and bikeways. The goal is to ensure that any necessary mitigation measures are implemented and that the project aligns with the County's transportation plans and policies. The Guidelines include a screening criterion for projects generating fewer than 110 trips per day. Projects meeting this threshold are typically considered to have a less-than-significant impact on VMT. This screening helps identify smaller projects that do not significantly affect local traffic or transportation infrastructure, exempting them from more detailed VMT analysis.

5.17.3 Environmental Evaluation

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. Development of the Proposed Project, which is limited to the expansion of an existing vineyard by an additional 9 acres, would not result in changes to the transportation system or circulation infrastructure within or adjacent to the Project Site. Construction is expected to be temporary and would not generate a significant amount of traffic given the small size of the project. It is anticipated that the same workers that already farm the existing vineyards would continue to farm the proposed vineyards, and therefore, a substantial increase in new worker trips that would result in significant additional traffic from long-term operation is not anticipated. Therefore, the Proposed Project would not conflict with a transportation plan or policy or affect transit, bicycle, or pedestrian facilities. There would be a less-than-significant impact, and no mitigation would be required.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant Impact. The County maintains a set of TIS Guidelines that define situations and project characteristics that trigger the need to prepare a TIS. According to the County's TIS Guidelines, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips. For a new project that would generate less than 110 net new daily vehicle and truck trips, not only is the project not required to prepare a TIS, but it is also presumed to have a less-than-significant impact for VMT (Napa County, 2022). This threshold of 110 trips per day is consistent with the screening criteria established by OPR in their Technical Guidelines.

Construction of the Proposed Project is expected to be temporary and would not generate a significant amount of traffic given the small size of the project. Further, it is anticipated that the same workers that already farm the existing vineyards would also farm the proposed vineyards. Therefore, no new worker trips are anticipated from long-term project operations. As such, the Proposed Project is not expected to exceed the 110 net new daily trip threshold established by the County TIS Guidelines or the OPR Technical Guidelines, and the Proposed Project would thus result in a less than significant impact on VMT. As such, the Proposed Project would be consistent with CEQA Guidelines Section 15064.3 and there would be a less than significant impact, and no mitigation would be required.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Proposed Project would not obstruct existing dirt access roads on the Project Site or alter transportation infrastructure within the surrounding off-site project area. Additionally, it would not generate significant additional traffic from long-term operation or result in physical changes to area roadways. It is anticipated that the same farming equipment and workers that already farm the existing vineyards would continue to farm the proposed vineyards, and therefore no new equipment or worker trips are anticipated that could result in incompatible uses. Therefore, the Proposed Project would not increase hazards due to design features or measurable changes to circulation patterns. There would be no impact.

d) Would the project result in inadequate emergency access?

No Impact. The Proposed Project would not impact nearby roadways, including those necessary for emergency access or evacuation. Additionally, it would not generate additional vehicle trips that could obstruct roadways in the event of an emergency. There would be no impact.

5.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:				
i. 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	☐	☐	☐	☒
ii. 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

5.18.1 Environmental Setting

The analysis in this section is based on the Archeological Resources Report prepared for the Proposed Project (**Appendix B**). The project area is within the historical territory of the Southern Patwin (Southern Wintun), a group within the Wintun family of the Penutian linguistic group. As described in **Section 5.6**, Patwin sites located near the project area include the Tcīme'nūkme, Tū'lūka, and Suskol. The project area is also near the Coast Miwok and Wappo territories.

A records search request for the California Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was submitted on August 1, 2023, to determine if any listed sites are within or near the Project Site. The search yielded no results. On June 8, 2023, NAHC provided a list of tribal entities that may have knowledge of cultural resources in the area based on a previous request in the local vicinity. The following tribes were contacted on August 2, 2023: Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, Middletown Rancheria of Pomo Indians, Pinoleville Pomo Nation, Guidiville Indian Rancheria, Mishewal-Wappo Tribe of Alexander Valley, and Pinoleville Pomo Nation. No responses have been received to date.

As discussed further in **Section 5.18.2** below, AB 52 mandates that the Lead Agency conduct early tribal consultation prior to and during CEQA review with those California Native American tribes that have formally requested, in writing, notification on projects subject to AB 52. The State Water Board contacted the following tribes via email on July 15, 2025: Cachil Dehe Band of Wintun Indians of the Colusa Indian Community, Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, Grindstone Rancheria of Wintun-Wailaki, Yocha Dehe Wintun Nation, Mishewal-Wappo Tribe of Alexander Valley, Pinoleville Pomo Nation, Guidiville Rancheria of California, and Muwekma Ohlone Tribe of the SF Bay Area. No requests for consultation were received. The State Water Board has determined that the consultation process is concluded, pursuant to PRC Section 21080.3.1 (i.e., AB 52) and PRC Section 21084.3

5.18.2 Regulatory Framework

State

Assembly Bill 52: AB 52 (2014) established Tribal Cultural Resources (TCRs) as a distinct category under CEQA, integrating tribal cultural values with scientific and archaeological considerations in impact assessments and mitigation. According to PRC, Division 13, Section 21074, TCRs are defined as either:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either: a. Included or determined to be eligible for inclusion in the CRHR, or b. Included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the eligibility criteria for the CRHR (PRC Section 5024.1(c)). In applying these criteria, the lead agency must consider the significance of the resource to a California Native American tribe.

Native American tribes with cultural ties to a geographic area may have specialized knowledge about their TCRs. Therefore, AB 52 mandates that within 14 days of deciding to move forward with a project or deeming a project application complete, the lead agency must notify California Native American tribes that have requested to be on the agency's notification list. The notice must include a brief description of the project, its location, contact information for the lead agency, and inform the tribe that they have 30

days to request a consultation. The lead agency is required to initiate the consultation process within 30 days of receiving such a request.

5.18.3 Environmental Evaluation

a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:**

- i. **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**

No Impact. The State Water Board sent AB 52 notification letters on July, 15, 2025; no tribes requested to consult regarding the Proposed Project. No Tribal Cultural Resources were identified in the cultural resources report prepared for the Proposed Project (**Appendix B**), and no other information was found that indicated the presence of Tribal Cultural Resources within or near to the project site. Therefore, the project would have no impact on Tribal Cultural Resources listed or eligible for listing on the California Register of Historic Resources and no mitigation is required.

- ii. **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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

No Impact. No Tribal Cultural Resources were identified as a result of the invitation to consult letters sent to interested tribes by the State Water Board or in the cultural resources report; therefore, the Proposed Project would have no impact on any Tribal Cultural Resources that the Lead Agency deems to be significant per subdivision (c) of Public Resources Code Section 5024.1. No mitigation is required.

5.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
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 waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
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?	☐	☐	☐	☒

5.19.1 Environmental Setting

The Proposed Project is in a rural agricultural area outside of the City of Napa. Water supply for irrigation, stockwatering, and domestic use is received from three existing reservoirs on the property. The Project Site is not connected to an urban wastewater collection and treatment facility.

5.19.2 Environmental Evaluation

- a) **Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Less than Significant Impact. The Proposed Project involves the expansion of the POU and planting of up to 9 acres of additional vineyard, with no requested expansion of the amount of water diverted or stored in the existing reservoirs on the Project Site. There is no need for the relocation or construction of new or expanded wastewater treatment, stormwater drainage, electric power, natural gas, or

telecommunication facilities that could cause significant environmental effects. Infrastructure for the irrigation of the additional proposed vineyards would be required within the vineyard footprint, but as the proposed vineyards are located adjacent to existing vineyard blocks, the existing infrastructure from the reservoirs to the existing blocks will be utilized. Therefore, impacts from the Proposed Project would be less than significant, and no mitigation would be required.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. Water right License 7328 (A018595) authorizes the beneficial use of 39 afa of water stored in the three onsite reservoirs. Typical vineyard irrigation rates in Napa County vary from 0.3 af/acre to 1 af/acre depending on conditions such as soil type, rootstock, planting density, and other factors. There are 22 existing acres of existing vineyard and the Petition for Change seeks to expand the POU to 31 acres and plant an additional up to 9 acres of vineyard. Even if the highest irrigation rates were required in any given year, there would be sufficient water supplies available to serve the Proposed Project. Impacts would be less than significant, and no mitigation would be required.

c) Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The project site is not served by a wastewater provider, and the Proposed Project does not involve any activities that would generate wastewater or propose the development of facilities that would require wastewater treatment. There would be no impact.

d) Would the project 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?

No Impact. Solid waste generated during construction of the proposed vineyards would be negligible. Ongoing operations of the Proposed Project would not generate significantly more solid waste than current operations, and only a minimal amount of inorganic solid waste would be generated. There would be no impact.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. There would be no impact.

5.20 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 Impact with Mitigation Incorporated	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?	☐	☐	☒	☐

5.20.1 Environmental Setting

The Project Site is located within the Napa County LRA and has not been designated as a fire hazard severity zone by Napa County. Although Napa County has experienced several significant wildfires, including the LNU Lightning Complex fire in 2020, there are no historical records of wildfires impacting the Project Site (Napa County, 2023).

5.20.2 Regulatory Framework

State

California Department of Forestry and Fire Protection (CalFire): CalFire is the state agency responsible for protecting California's public and private lands from wildfires. CalFire manages fire prevention, firefighting, and emergency response operations across the state. Under California PRC Section 4201 through 4204 and California Government Code Section 51175-51189, CalFire is tasked with mapping fire hazard zones within both State Responsibility Areas (SRAs) and LRAs based on factors such as fuels, terrain, and weather. In addition to fire suppression, CalFire coordinates wildfire response efforts, provides resources to local agencies, and oversees fire hazard severity zones to ensure public safety and minimize the risk of catastrophic wildfires.

SRAs are areas where CalFire has legal and financial responsibility for wildfire protection, including fire hazard classifications and building standards. LRAs encompass city lands, cultivated agricultural areas,

unincorporated non-flammable regions, and lands that do not meet the criteria for SRAs or Federal Responsibility Areas.

Local

Napa County General Plan: The Safety Element of the Napa County General Plan includes the following goals and policies pertaining to wildfire:

Goal SAF-10: Effectively manage forests and watersheds to protect homes and businesses from fire and wildfire and minimize potential losses of life and property.

Policy SAF-10.1: The County shall work with other agencies and organizations to implement the Community Wildfire Protection Plan (2021) and Multi-Jurisdictional Hazard Mitigation Plan (2020).

Policy SAF-10.3: The County shall coordinate with CAL FIRE and fire agencies in neighboring counties to plan for future fire prevention and suppression needs, including identifying future water supply for fire suppression needs.

Policy SAF-10.7: Support new technology in fire suppression and prevention. The County supports the development and use of new technology in the suppression and prevention of fires.

Napa County Community Wildfire Protection Plan: The Napa County CWPP serves as a comprehensive strategy to mitigate wildfire risks across the county. Adopted by the Napa County Board of Supervisors in 2021, the CWPP aims to protect human life, property, and critical infrastructure through various initiatives. Key actions include the strategic removal or modification of vegetative fuels, creation of vital fuel breaks, implementation of fire-resistant vegetation, fortification of evacuation routes, and enhancement of forest health and resilience.

Napa County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP): The Napa County MJHMP addresses wildfire risks within the county through a comprehensive assessment of vulnerable areas based on terrain, vegetation, and weather conditions. The plan includes strategies for risk reduction, such as fire breaks, vegetation management, and fire-resistant building codes. It also focuses on emergency response coordination, public education, and funding opportunities for wildfire prevention efforts. Overall, the plan aims to enhance Napa County's resilience to wildfires and improve preparedness across local communities.

5.20.3 Environmental Evaluation

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Development of the Proposed Project, which is limited to 9 acres of vineyard expansion, would not impact nearby roadways, evacuation routes, or critical infrastructure necessary for emergency response or evacuation. Additionally, the Proposed Project would not generate significant amounts of additional traffic during operations that could obstruct roadways or evacuation routes in the event of an emergency because the proposed vineyards would be farmed by workers who already farm vineyards on the Project Site. Therefore, implementation of the Proposed Project would not conflict with the County's emergency response and/or emergency evacuation plans. There would be no impact.

- b) Would the project, 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?**

Less than Significant Impact. The Project Site is not identified by Napa County as within a designated fire hazard severity zone. Although the site features gentle to moderate slopes, it is not subject to strong prevailing winds or other factors that would exacerbate wildfire risk. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary during project construction. Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. Therefore, the Proposed Project would have a less than significant impact, and no mitigation would be required.

- c) Would the project 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?**

No Impact. The Proposed Project involves an expansion of existing vineyards on the Project Site but the proposed vineyards would utilize existing onsite vineyard avenues and driveways for access, the existing irrigation system on the Project Site, and the existing reservoirs, thereby eliminating the need for the installation or maintenance of new infrastructure. No powerlines are proposed. Further, the Project Site is not identified by Napa County as being within a designated fire hazard severity zone. There would be no impact.

- d) Would the project 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?**

Less than Significant Impact. As discussed in **Section 5.7**, the Proposed Project does not involve impacts to a floodplain, and changes to drainage patterns would be limited to minimal and localized grading. Although the Project Site is located in an area with increased landslide risk due to steeper slopes and seismic activity, no new structures are proposed, and there would be no increase in human activity on the Project Site associated with the Proposed Project. Therefore, the Proposed Project would not expose people or structures to significant risks from runoff, post-fire slope instability, or drainage changes. There would be a less than significant impact, and no mitigation would be required.

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

Mandatory Findings of Significance	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

5.21.1 Environmental Evaluation

- 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?**

Less than Significant with Mitigation. As discussed in this Initial Study, authorization of the Petition for Change of License 7328 (A018595), as amended, would result in the modification of the licensed POU to delete that portion of the POU located on APN 043-061-023 and to expand the POU from 15 acres to 31 acres on APN 043-061-024. This includes the planting of up to 9 acres of additional vineyard on the Project Site.

Implementation of **Mitigation Measures BIO-1** through **BIO-5** would avoid potential direct, indirect, and cumulative impacts to special-status animal species, including American badgers, Swainson's hawk, northwestern pond turtle, and other nesting and migratory birds. No special-status plants occur on the Project Site. The proposed new vineyard blocks would be located immediately adjacent to the existing vineyard blocks on the Project Site, which would ensure potential impacts to wildlife movement are less

than significant. Setbacks from the onsite seasonal wetland and streams far exceed the minimum aquatic resources setbacks defined in Napa County Code. Through Tribal Notification pursuant to Public Resources Code 21080.3.1 (AB 52 - Gatto) and with incorporation of **Mitigation Measures CULT-1** through **CULT-3**, cultural resources that may be discovered accidentally will be protected, and significant impacts to cultural resources are not expected. Similarly, **Mitigation Measure GEO-1** protects inadvertent discoveries of paleontological resources, and significant impacts to paleontological resources are not expected. Finally, **Mitigation Measure HYD-1** would ensure impacts related to grading would not result in significant impacts to hydrology and water quality, or geology and soils. Therefore, the Proposed Project as designed with the incorporation of mitigation measures would have a less-than-significant potential to degrade the quality of the environment.

- 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.)**

Less than Significant with Mitigation. There are no further plans to develop vineyard on the Project Site beyond that described in **Section 3** Project Description. An ECP covering 0.8-acres may be submitted to Napa County and is within the requested POU expansion footprint, and therefore is being analyzed as part of the Proposed Project impacts within this IS/MND.⁶ It would therefore not contribute to cumulative impacts that were not already analyzed under the project-level analysis within this Initial Study. No cumulative impacts are anticipated due to water supply, as the Proposed Project will not exceed or modify the amount of water authorized for diversion under License 7328 (A018595). As described in **Section 3.1.1**, the maximum diversion amount would be unchanged compared to what was previously evaluated and licensed. Although historical withdrawals may not have utilized the full withdrawal amount, the use of the full diversion amount was assumed and evaluated during the water right licensing of License 7328. Therefore, even if realized diversion amounts are higher than what was historically realized, this is still within the allowable diversion amount that was previously evaluated and is therefore not considered an incremental increase. The Proposed Project-related impacts in combination with the impacts of other past, present, and future projects in the surrounding area could contribute to cumulatively significant effects on the environment relating to biological and cultural resources. However, with implementation of the identified mitigation, the Proposed Project would avoid or minimize potential impacts and would not result in cumulatively considerable environmental impacts, and the impacts would be less than significant.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less than Significant Impact. As discussed above, the Proposed Project would not result in significant impacts related to air quality, geology and soils, greenhouse gases, hazards and hazardous materials, and noise with the implementation of County, State, and Federal programs and regulations. Potential impacts on human beings would be less than significant, and no further mitigation is required.

⁶ An ECP is required by Napa County for earth-disturbing activities on slopes exceeding 5 percent.

6.0 SIGNIFICANCE DETERMINATION

On the basis of the environmental evaluation presented in **Section 5**:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

A handwritten signature in black ink, appearing to be "Jian Ling", written over a horizontal line.

Signature

7/30/2026

Date

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8.0 REFERENCES

- Association Of Bay Area Governments (ABAG), 2001. The Real Dirt on Liquefaction. A Guide to the Liquefaction Hazard in Future Earthquakes Affecting the San Francisco Bay Area. Available online at: https://abag.ca.gov/sites/default/files/lq_rept.pdf. Accessed February 2025.
- BAAQMD, 2017. Spare the Air Cool the Climate. Available online at: <https://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>. Accessed February 2025.
- BAAQMD, 2022. Thresholds of Significance. Available online at: <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>. Accessed February 2022.
- BAAQMD, 2022. Chapter 5 Project Level Air Quality Impacts. Available online at: <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>. Accessed February 2025.
- CalEPA, 2020. Hazardous Materials Business Plan. Available online at: <https://calepa.ca.gov/hazardous-materials-business-plan-program/>. Accessed March 2025.
- CalEPA, 2025. CalEPA Regulated Site Portal: List of Nearby Regulatory Program Participants. Available online at: <https://siteportal.calepa.ca.gov/nsite/map/results/summary/394960>. Accessed March 2025.
- California Air Resources Board (CARB), 2023. 2023 Area Designations for State Ambient Air Quality Standards. Available online at: <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>. Accessed February 2025.
- California Department of Conservation (CDC), 2025. Earthquake Zones of Required Investigation. Available online at: https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/#data_s=id%3AdataSource_4-191d87d69be-layer-20%3A861. Accessed February 2025.
- CDC, 2025b. <https://www.conservation.ca.gov/cgs/tsunami/maps/napa>. Accessed February 2025
- California Department of Toxic Substance Control (DTSC), 2025. Hazardous Waste and Substances Sites List (Cortese List). Available online at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed January 2025.
- California Department of Water Resources (CDWR), 2025. 20-Year Groundwater Level Trends California's Groundwater Live. Available online at: <https://storymaps.arcgis.com/stories/b3886b33b49c4fa8adf2ae8bdd8f16c3>. Accessed February 2025.

California Energy Commission (CEC), 2025. Electricity Consumption by County. Available online at: <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed January 2025.

California Geological Survey (CGS), 2013. Special Report 205. Available online at: https://maps.conservation.ca.gov/cgs/minerals/?page=Mineral-Land-Classification#data_s=id%3AdataSource_335-18a47b5b8e5-layer-10-192c08351d6-layer-28%3A33. Accessed January 2025.

City of Napa, 2018. Figure 2-3 Land Use Diagram. Available online at: <https://www.cityofnapa.org/259/General-Plan>. Accessed February 2025.

Federal Emergency Management Agency (FEMA), 2025. FEMA's National Flood Hazard Layer (NFHL) Viewer. Available online at: <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-122.31017602661133,38.28882145434793,-122.2686339733887,38.30566156851515>. Accessed February 2025.

Kelder Engineering Inc., 2017. Certification of Staff Gauge for Accuracy.

Napa County, 2008. Community Character element of the General Plan. Available online at: <https://www.countyofnapa.org/1760/General-Plan>. Accessed February 2025.

Napa County, 2009. Conservation Element of the General Plan. Available online at: <https://www.countyofnapa.org/1760/General-Plan>. Accessed February 2025.

Napa County, 2013. General Plan Agricultural Preservation and Land Use Element. Available online at: <https://www.countyofnapa.org/1760/General-Plan>. Accessed February 2025.

Napa County, 2021. Napa County Community Wildfire Protection Plan. Available online at: <https://napafirewise.org/wp-content/uploads/2021/05/CWPP-Signed-May-4-2021.pdf>. Accessed April 2025.

Napa County, 2022. Napa County Traffic Impact Study (TIS) Guidelines. Available online at: <https://www.countyofnapa.org/DocumentCenter/View/31273/Napa-County-Traffic-Impact-Study-TIS-Guidelines-February-2022-PDF>. Accessed March 2025.

Napa County, 2023. Safety Element of the General Plan. Available online at: <https://www.countyofnapa.org/1760/General-Plan>. Accessed January 2025.

Napa County, 2024. Chappellet Vineyard, Agricultural Erosion Control Plan Application (ECPA) #P21-00206-ECPA. Available online at: <https://pbcs.cloud/index.php/s/mzQ7Pc9PzrJ4eag?dir=undefined&openfile=368320>. Accessed March 2025.

Napa County, 2024b. Napa County Regional Climate Action and Adaptation Plan Emissions Forecast Update. Available online at: <https://www.countyofnapa.org/DocumentCenter/View/36844/RCAAP-Emissions-Forecast-Update-Memo>. Accessed March 2025.

Napa County, n.d. Certified Unified Program Agency: Hazardous Materials Business Plan/Hazardous Materials Inventory Statement. Available online at: <https://www.countyofnapa.org/1919/CUPA>. Accessed March 2025.

Napa County Baseline Data Report, 2005. Chapter 6: Noise Resources. Available online at: https://www.napawatersheds.org/managed_files/Document/2357/Ch06_NoiseResources.pdf. Accessed March 2025.

Napa County Baseline Data Report, 2005a. Chapter 2: Mineral and Rock Resources. Available online at: https://www.napawatersheds.org/managed_files/Document/2374/Ch02_MineralResources.pdf. Accessed January 2025.

Napa County GIS, 2025. Napa County Online Public Map. Available online at: <https://napacounty.maps.arcgis.com/home/index.html>. Accessed February 2025.

Napa County Municipal Code, 2025. Chapter 18.20 - AW Agricultural Watershed District. Available online at: https://library.municode.com/ca/napa_county/codes/code_of_ordinances?nodeId=16513. Accessed February 2025.

Napa County Watershed Information and Conservation Council (WICC), 2025. Geology. Available online at: <https://www.napawatersheds.org/geology>. Accessed February 2025.

Napa Recycling, 2025. Devlin Road Recycling & Transfer Facility. Available online at: <https://naparecycling.com/residents/devlin-road-facility/>. Accessed February 2025.

Natural Resources Conservation Services (NRCS), 2025. Web Soil Survey. Available online at: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed February 2025

San Francisco Bay RWQCB, 2006. Napa River Sediment Total Maximum Daily Load. Available online at: https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/TMDLs/napasediment/napasedimentstaffreport063006.pdf. Accessed April 2026.

San Francisco Bay RWQCB, 2017. General Waste Discharge Requirements for Vineyard Properties in the Napa River and Sonoma Creek Watersheds. Available online at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/agriculture/vineyard/index.html. Accessed February 2026.

SWRCB Division of Water Rights, 2023. eWRIMS – Electronic Water Rights Information Management System. Available online at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/ewrims/. Accessed 2023.

UC Museum of Paleontology (UCMP), 2025. UC Museum of Paleontology Specimens. Available online at: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed February 2025.

U.S. Energy Information Administration (EIA), 2025. California State Energy Profile. Available online at: <https://www.eia.gov/state/print.php?sid=CA>. Accessed March 2025.

- U.S. Environmental Protection Agency (USEPA), 2023. California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Available online at: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed February 2025.
- USEPA, 2024. Waterbody Report Carneros Creek subwatershed (Napa County, tributary to Napa River-tidal). Available online at: https://mywaterway.epa.gov/waterbody-report/CA_SWRCB/CAR2065007020210615055819/2024. Accessed February 2025.
- USEPA, 2025. How's My Waterway? Available online at: <https://mywaterway.epa.gov/community/180500020501/overview>. Accessed February 2025.
- USEPA, 2025a. EnviroMapper. Available online at: <https://map22.epa.gov/cimc/CA>. Accessed January 2025.
- USEPA, 2025b. Superfund National Priorities List. Available online at: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1>. Accessed January 2025.
- United States Geological Survey (USGS), 2025a. U.S. Quaternary Faults. Available online at: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>. Accessed February 2025.
- USGS, 2025b. U.S. Landslide Inventory. Available online at: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d>. Accessed March 2025.
- Wagner & Bonsignore, 2023. License 7328 (A018595) of Nick Tsiplakos, Petition for Change in Place of Use. Petition and Aerial Mapping.

Appendix A

Biological Resources Assessment

Biological Resources Reconnaissance Survey

1200 Grandview Drive – Water Rights (APNs 043-061-019, -020)

Napa County, California



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December 2023

WRA Project # 320262-1

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EXECUTIVE SUMMARY

This report details the regulatory background, methods, results, and recommendations of a biological resources reconnaissance survey located at 1200 Grandview Drive (Study Area) in Napa County, California.¹ WRA, Inc. performed field surveys in June of 2022 and April of 2023. The Study Area is composed of coast live oak woodland, non-native grassland, and developed land covers including vineyards, with reservoirs (manmade ponds) and seasonal wetland features also present.

Within the larger Study Area, the proposed project involves modification to the on-site water right place of use (POU) as well 4.7 acres of expansion to existing vineyard development (Project Area).² The Project Area is situated within the non-sensitive land covers of non-native grassland and developed areas. While 19.5 acres of coast live oak woodland are present within the Study Area, no woodland will be impacted. The Project Area is also sited to avoid the seasonal wetlands and reservoirs that are present within the Study Area. A protocol-level botanical survey found that no special-status plant species are present within the Study Area, so no impacts to such species will occur.

Additionally, eight special-status wildlife species (including one stated threatened bird), as well as non-status birds with baseline legal protections, have the potential to occur in the Study Area, including variably in or near the Project Area. Mitigation measures and best management practices have been developed and provided herein to avoid impacts to these resources.

¹ Study Area: The area throughout which the assessment was performed, i.e., the subject parcels (APNs 043-061-019, -020) totaling approximately 108 acres; see Figures in Appendix A.

² Project Area: The area encompassing ground disturbance/land alteration related to the proposed project (vineyard expansion); the area evaluated for potential impacts to sensitive biological resources, totaling 28.4 acres (including currently developed areas); see Figure A-4 in Appendix A.

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Definitions

Study Area: The area throughout which the assessment was performed, i.e., the subject parcels (APNs 043-061-019, -020) totaling approximately 108 acres.

Project Area: The area encompassing ground disturbance/land alteration related to the proposed project (vineyard expansion); the area evaluated for potential impacts to sensitive biological resources, totaling 28.4 acres (including currently developed areas).

List of Abbreviations & Acronyms

BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
BRRS	Biological Resources Reconnaissance Survey
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CECP	California Essential Connectivity Project
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
County	County of Napa
Corps	U.S. Army Corps of Engineers
CRLF	California Red-legged Frog
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
ESA	(Federal) Endangered Species Act
MBTA	Migratory Bird Treaty Act
NCBDR	Napa County Baseline Data Report
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OHWM	Ordinary High Water Mark
POU	Place of Use
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SA/PA	Study Area and Project Area (collectively)
SSC	Species of Special Concern
SFP	State Fully Protected Species
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

1.0 INTRODUCTION

On June 29, 2022 and April 26, 2023, WRA, Inc. (WRA) performed an assessment of biological resources at 1200 Grandview Drive (APN APNs 043-061-019, -020; hereafter Study Area) in Napa County California (Figure A-1, Appendix A). The purpose of this study was to gather the information necessary to complete a review of biological resources under the California Environmental Quality Act (CEQA) to meet the guidelines outlined by Napa County in *Guidelines for Preparing Biological Resources Reconnaissance Surveys* (Napa County 2016a) and *Guidelines for Preparing Special-status Plant Studies* (Napa County 2016b).

A biological resources reconnaissance survey (BRRS) provides general information on the presence, or potential presence, of sensitive species and habitats.³ These survey(s) contain the results of a focused protocol-level survey for listed plant species in the Study Area; however, protocol-level surveys for wildlife were not included as part of the survey. This survey is not a formal wetland delineation; in instances where such a delineation may be required for project approval by local, state, or federal agencies, results would be reported herein, but may be presented elsewhere in separate reports. This survey is based on information available at the time of the study and on-site conditions that were observed on the date(s) the site was visited.

This report describes the results of the site visits, which assessed the Study Area for (1) the presence of sensitive land cover types, (2) the potential for land cover types on the site to support special-status plant and wildlife species, and (3) the presence of any other sensitive natural resources protected by local, state, or federal laws and regulations. Special-status species observed during the site assessment were documented and their presence is discussed herein. Specific findings on the habitat suitability or presence of special-status species or sensitive habitats may require that protocol-level surveys or other studies be conducted; recommendations for additional studies are provided, if necessary.

The proposed project (Project) involves modifying and expanding the authorized on-site place of use (POU) in terms of water rights, and adding 4.7 acres of new vineyard, both of which are directly adjacent to existing vineyard development. There will be no change to the amount of water requested, the intended use of diverted water, or the season(s) of diversion. No tree removal is anticipated to accommodate the Project. Site preparation (grading, installation of erosion control measures, and associated) will occur during the grading window of April 1 through October 15.

2.0 REGULATORY BACKGROUND

This report is intended to facilitate conformance of the Project with the standards outlined in the Napa County Code and General Plan. In addition to the requirements of Napa County, the Project may also be subject to several federal and state regulations designed to protect sensitive natural resources. Full analysis of these requirements in the context of the Project is addressed herein.

³ A BRRS report is a biological resources assessment that conforms to published guidelines by Napa County for such reports.

2.1 Federal and State Regulatory Setting

2.1.1 Sensitive Land Cover Types

Land cover types are herein defined as those areas of a particular vegetation type, soil or bedrock formation, aquatic features, and/or other distinct phenomena. Typically, land cover types have identifiable boundaries that can be delineated based on changes in plant assemblages, soil or rock types, soil surface or near-surface hydroperiod, anthropogenic or natural disturbance, topography, elevation, etc. Many land cover types are not considered sensitive or otherwise protected under the environmental regulations discussed here. However, these land cover types typically provide essential ecological and biological functions for plants and wildlife, including, frequently, special-status species. Those land cover types that are considered or protected under one or more environmental regulations are discussed below.

Waters of the United States: The United States Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the United States generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State: The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a project does not require a federal permit but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements. The San Francisco Bay RWQCB, which has jurisdiction over projects in the Napa River watershed, recently adopted the General Permit for Vineyard Properties in the Napa River and Sonoma Creek Watersheds to comply with the WDRs for sediment and nutrient discharge from vineyards.

Streams, Lakes, and Riparian Habitat: Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term “stream”, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). “Riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Sensitive Natural Communities: Sensitive natural communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as “threatened” or “very threatened” (CDFG 2010, CDFW 2023b) and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB; CDFW 2023a). CNDDDB vegetation alliances are ranked 1 through 5 based on NatureServe’s (2018) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). The Napa County Baseline Data Report (NCBDR) identifies sensitive Napa County natural communities, discussed further in Section 2.2 below (Napa County 2005).

2.1.2 Special-status Species

Plants: Special-status plants include taxa that have been listed as endangered or threatened, or are formal candidates for such listing, under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA). The California Native Plant Protection Act (CNPPA) lists 64 “rare” or “endangered” and prevents “take”, with few exceptions, of these species. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. A description of the CNPS Ranks is provided below in Appendices B and C. Additionally, any plant species listed as sensitive within the Napa County General Plan or NCBDR are likewise considered sensitive.

Wildlife: As with plants, special-status wildlife includes species/taxa that have been listed or are formal candidates for such under ESA and/or CESA. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America’s eagle species (bald [*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*]) that in some regards are similar to those

provided by ESA. The CFGC designates some species as Fully Protected (SFP), which indicates that take of that species cannot be authorized through a state permit. Additionally, CDFW Species of Special Concern (species that face extirpation in California if current population and habitat trends continue) are given special consideration under CEQA and therefore considered special-status species. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA. Finally, wildlife species/taxa named as “locally rare” in the NCBDR (Napa County 2005) are also treated as special-status for purposes of this assessment.

Critical Habitat, Essential Fish Habitat, and Wildlife Corridors: Critical habitat is a term defined in the ESA as a specific and formally-designated geographic area that contains features essential for the conservation of a threatened or endangered species, and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species’ recovery. Note that designated critical habitat areas that are currently unoccupied by the species but which are deemed necessary for the species’ recovery are also protected by the prohibition against adverse modification.

The Magnuson-Stevens Fishery Conservation and Management Act (“Magnuson-Stevens Act”) provides for conservation and management of fishery resources in the U.S. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g. eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA. Additionally, the NCBDR (Napa County 2005) outlines important corridor resources within the County and encourages protection of these resources via Policy CON-18 (see section 2.2 below).

2.2 Napa County Regulatory Setting

Napa County General Plan and Napa County Code: Natural resource use in Napa County is regulated by the Napa County General Plan (Napa County 2008). Below are relevant policies from the General Plan pertaining to wetlands and biological resources which may be applicable to the Project.

Napa County Baseline Data Report

Specific sensitive Land Cover Types are identified in the NCBDR (Napa County 2005). In addition to those Land Cover Types identified by CDFW, the NCBDR also identifies biotic communities of limited distribution that “encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation” (Napa County 2005).

Natural Resource Goals and Policies

Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreation, 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:

- a) Maintain the following essentials for fish and wildlife resources:
 - a. Sufficient dissolved oxygen in the water.
 - b. Adequate amounts of proper food.
 - c. Adequate amounts of feeding, escaping, and nesting habitat.
 - d. Proper temperature through maintenance and enhancement of streamside vegetation volume flows, and velocity of water.
- b) Employ supplemental planting and maintenance of grasses, shrubs and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially streams side areas, in good condition.
- c) Provide protection for habitat supporting special-status species through buffering or other means.
- d) Provide replacement habitat of like quantity and quality on- or off-site for special-status species to mitigate impacts to special-status species.
- e) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.
- f) Require temporary or permanent buffers of adequate size (based on the requirements of the special-status species) to avoid nest abandonment of birds and raptors associated with construction and site development activities.
- g) Demonstrate compliance with applicable provisions and regulations of recovery plans for listed species.

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:

- a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.
- b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.
- c) Promote protection from overgrazing and other destructive activities.

- d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.
- e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

Policy CON-18: To reduce impacts on habitat conservation and connectivity:

- a) In sensitive domestic water supply drainages where new development is required to retain between 40 and 60 percent of the existing (as of June 16, 1993) vegetation onsite, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity.
- b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.
- c) Preservation of habitat and connectivity of adequate size, quality and configuration to support special-status species should be required within the project area. The size of habitat and connectivity to be preserved shall be determined based on the specific needs of the species.
- d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.
- e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact cause by the new vineyard development.

Policy CON-19: The County shall encourage the preservation of critical habitat areas and habitat connectivity through the use of conservation easements or other methods as well as through continued implementation of the Napa County Conservation Regulations associated with vegetation retention and setbacks from waterways.

Policy CON-24: Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

- a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agriculture projects.
- b) Comply with the Oak Woodlands Preservation Act regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.

- c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio [effectively 3:1 ratio⁴] 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.
- d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil production be left standing.
- e) Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub and live oaks are common associations.

General Provisions – Stream and Wetland Setbacks

Napa County Code 18.108.025 requires stream setbacks for new land clearings for agricultural purposes. “Stream” is defined by Napa County (18.108.030) as: (1) a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United State Geological Survey (USGS) maps most recently published, or any replacement to that symbol (i.e., USGS “blue-line”); (2) any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic vegetation, riparian vegetation or woody-vegetation including tree species greater than ten feet in height; or (3) those watercourses listed in Resolution No. 94-19. No clearing of land for new agricultural uses as defined by Section 18.08.040 shall take place within the following setbacks from streams:

Table 1. Napa County Stream Setbacks

Slope (Percent)	Required Setback
< 1	35 feet
1--5	45 feet
5--15	55 feet
15--30	65 feet
30--40	85 feet
40--50	105 feet
50--60	125 feet
60--70	150 feet

In 2019, Napa County added to Code Section 18.108.025 the requirement of a 35-foot setback for ephemeral or intermittent streams not meeting Napa County’s criteria for a stream. Likewise, 18.108.026 was added to the Napa County Code to include the requirement of a 50-foot setback from the delineated edge of wetland boundaries. Ordinance No. 1438 adopted by the Board of

⁴ Amendments to Napa County Ordinance 18.108 require a 3:1 ratio for preservation/replacement; see “Water Quality and Tree Protection Ordinance” on page 8.

Supervisors allowed for a one-time exemption from the Ordinance (and therefore the updated stream and wetland setbacks) for projects that are less than 15 percent slope and less than 5 acres.

Vegetation Preservation and Replacement

Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than 5 percent):

Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the County's environmental sensitivity maps.

Existing trees six inches in diameter or larger, measured at diameter breast height (DBH), or tree stands of trees six inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.

- Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriated methods to be placed and maintained at their outboard drip line during the construction phase. Where appropriate, the director may require an applicant to install and maintain construction fencing around the trees to ensure their protection during earthmoving activities. Where removal of vegetation is necessitated or authorized, the director or designee may require the planting of replacement vegetation of an equivalent kind, quality and quantity.

Water Quality and Tree Protection Ordinance

In 2019, the Napa County Board of Supervisors adopted the Water Quality and Tree Protection Ordinance (WQTPO) modifying Chapter 18.108 Conservation Regulations to provide additional protections to trees and water quality. As noted above, additional setbacks were added for ephemeral and intermittent drainages and wetlands (Chapters 18.108.025 and 18.108.026). In addition, the tree retention required by Chapter 18.108.027 in sensitive domestic water supply drainages was increased from 60 percent to 70 percent based on vegetation that existed within the parcel in 1993. For areas within the Agricultural Watershed zoning district (outside of sensitive water supply drainages), Chapter 18.108.020 subsections C and D were added that require a minimum of 70 percent canopy retention based on vegetation that existed within the parcel in 2016, and the preservation or mitigation of trees (within oak woodland/forest and/or coniferous forest land covers) at a minimum 3:1 ratio. Ordinance No. 1438 allowed for a one-time exemption from the Ordinance (and therefore the updated stream setbacks, wetland setbacks, and vegetation retention requirements) for projects that are less than 30 percent slope and less than 5 acres.

3.0 ENVIRONMENTAL SETTING

The approximately 108-acre Study Area, including the 28.4-acre Project Area (collectively SA/PA) consists of two adjacent parcels (see Appendix A). It is located in southwestern Napa County, approximately two aerial miles southwest of downtown Napa and eight miles east of downtown Sonoma. The SA/PA is situated on the southern flank of the Mayacama Mountains where the hills are low elevation and gradient rolling into the Napa-Sonoma Baylands. Detailed descriptions of the local setting are below.

3.1 Topography and Soils

The overall topography of the SA/PA is gently- to moderately-sloped, ranging from approximately 80 to 320 feet above sea level. According to the *Soil Survey of Napa County* (USDA 1978) and as shown in Figure A-2 (Appendix A), the SA/PA is underlain by four soil mapping units: Clear Lake clay, drained, 0 to 2 percent slopes; Forward silt loam, 5 to 39 percent slopes; Forward-Kidd complex, 11 to 60 percent slopes; and Haire loam, 2 to 9 percent slopes. The parent soil series of all the Study Area's mapping units are summarized below.

Clear Lake Series: This series consists of very deep clay soils formed in alluvium derived from sedimentary rock and are located on basin floors of river valleys at elevations ranging from 25 to 2,000 feet (CSRL 2023, USDA 1978). These soils are considered hydric, and are poorly drained, with negligible to high runoff, and slow to very slow permeability (USDA 2014, USDA 1978). Native and naturalized vegetation is composed of grasses and forbs, while typical land uses include row cropping, dry farming, irrigated pasture, and dry pasture (USDA 1978).

Forward Series: This series consists of moderately deep sandy loam soils of residuum weathered from rhyolitic tuff on hillslopes at elevations ranging from 400 to 4,500 feet (CSRL 2023, USDA 1978). These soils are not considered hydric, and are well drained, with medium runoff and moderately rapid permeability above the tuff bedrock (USDA 2014, USDA 1978). Native vegetation consists of coniferous forest composed of ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), California black oak (*Quercus kelloggii*), manzanitas (*Arctostaphylos* spp.), and pine mat (*Ceanothus prostratus*), while typical land uses include timbering, watershed protection, and open space (USDA 1978).

Kidd Series: This series consists of very shallow gravelly loam soils formed from weathered rhyolitic tuff and rhyolite situated on upland hillslopes at elevations ranging from 500 to 4,300 feet (CSRL 2023, USDA 1978). These soils are not considered hydric and are well to excessively drained with medium to very rapid runoff, and moderately rapid to rapid permeability (USDA 2014, USDA 1978). Native and naturalized vegetation include hoary manzanita (*Arctostaphylos canescens*), chamise (*Adenostoma fasciculatum*), ceanothus (*Ceanothus* spp.), scrub oak (*Quercus berberidifolia*), knobcone pine (*Pinus attenuata*), ponderosa pine (*P. ponderosa*), and mixed herbs, while typical land use is for watershed, recreation, and limited grazing (USDA 1978).

Haire Series: This series consists of moderately deep clay loam soils formed in alluvium derived from sedimentary rock situated in upland terraces at elevations ranging from 20 to 2,400 feet (CSRL 2023, USDA 1978). These soils are considered hydric and are moderately well drained, with very slow permeability, and slow to rapid runoff (USDA 2014, USDA 1978). Native and naturalized

vegetation predominantly consists of annual grasses and forbs, while typical land uses are dry and irrigated pasture grazing (USDA 1978).

3.2 Climate and Hydrology

The SA/PA is located in the valley-bayland fog incursion zone of Napa County, where precipitation is supplemented by fog drip. The average monthly maximum temperature of Napa State Hospital is 82.8 degrees Fahrenheit, while the average monthly minimum temperature is 48.1 degrees Fahrenheit. Predominantly, precipitation falls as rainfall with an annual average of 26.5 inches. Precipitation-bearing weather systems are predominantly from the west and south with most of the rain falls between November and March, combining for an of 22.08 inches for this period (USDA 2023).

The local watershed is Carneros Creek (HUC 12: 180500020801) and the regional watershed is Frontal San Pablo Bay Estuaries (HUC 8: 18050002). The Study Area is situated in the Napa County Planning Watershed of Browns Valley Creek. There are no blue-line streams on the Napa 7.5-minute quadrangles (USGS 2015); however, there are three mapped reservoirs. There are several features mapped as Riverine as well as three Freshwater Ponds in the National Wetlands Inventory (NWI; USFWS 2023a), and the same features are mapped as Fluvial and Pond and Associated Vegetation in the California Aquatic Resources Inventory (CARI; SFEI 2023). The primary hydrologic sources are direct precipitation and consequent surface sheet flow. Precipitation in the majority of the SA/PA infiltrates quickly due to rocky loam soils. The entire SA/PA property was investigated for aquatic resources, with a particular focus on the areas denoted in the NWI and CARI; detailed descriptions of aquatic resources are in Section 5.1 below.

3.3 Land Cover and Land Use

The Study Area is predominantly undeveloped woodland and grassland, with portions of development in the central and eastern portion. The developed areas include single-family residences, outbuildings, access roads, vineyard blocks, and associated infrastructure. The property is bounded by vineyards to the west and north, a mix of dense woodland and vineyards to the south, and residential development to the east. Detailed plant community descriptions are included in Section 5.1 below, and all observed plant and wildlife species are included in Appendix B. Regional land uses include rural residential, wineries, and vineyards (Google Earth 2023). Historically, land uses in the region were open rangeland of larger ranches, rural residential, row crops, vineyards, and orchards. There is no history of intensive agriculture (except vineyards), quarrying, mining, or timbering in the Study Area (Historic Aerials 2023).

4.0 ASSESSMENT METHODS

Prior to the site visits, WRA biologists reviewed the following literature and performed database searches to assess the potential for sensitive natural communities (e.g., wetlands) and special-status species (e.g., endangered plants):

- *Soil Survey of Napa County, California* (USDA 1978)
- Napa 7.5-minute quadrangle (USGS 2015)
- Contemporary aerial photographs (Google Earth 2023)
- Historical aerial photographs (Historical Aerials 2023)
- National Wetlands Inventory (NWI; USFWS 2023a)
- California Aquatic Resources Inventory (CARI; SFEI 2023)
- California Natural Diversity Database (CNDDB; CDFW 2023a)
- California Native Plant Society Electronic Inventory (CNPS 2023a)
- Consortium of California Herbaria (CCH 2023)
- USFWS Information for Planning and Consultation (IPaC; USFWS 2023b)
- eBird Online Database (eBird 2023)
- CDFW Publication, *California Bird Species of Special Concern in California* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *Breeding Birds of Napa County, California* (Smith 2003)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)
- *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009)
- *A Manual of California Vegetation Online* (CNPS 2023b)
- *Preliminary Descriptions of the Terrestrial Natural Communities* (Holland 1986)
- Napa County Land Cover (NCLC) map (Thorne et al. 2004)
- *California Natural Community List* (CDFW 2023b)

For special-status plants, database searches (i.e., CNDDB, CNPS) focused on the Rutherford, Yountville, Capell Valley, Sonoma, Napa (focal), Mount George, Sears Point, Cuttings Wharf, and Cordelia USGS 7.5-minute quadrangles. The special-status wildlife evaluation was based on database searches for the entirety of Napa County.

Following the remote assessment, a botanist with 40-hour Corps wetland delineation and wildlife biologist training traversed the entire Study Area on foot to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) if and what type of aquatic natural communities (e.g., wetlands) are present, (3) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, and (4) if special-status species are present⁵.

4.1 Land Cover Types

4.1.1 Terrestrial Land Cover Types

Terrestrial land cover types were mapped and evaluated across the entire SA/PA. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation) and follow the *California Natural Community List* (CDFW 2023b), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Manual of California Vegetation, Online Edition* (CNPS 2021b). In some cases, it may be necessary to identify variants of community types

⁵ Due to the timing of the assessment, it may or may not constitute protocol-level species surveys; see Section 4.2 if the site assessment would constitute a formal or protocol-level species survey.

or to describe non-vegetated areas that are not described in the literature; should an undescribed variant be used, it will be noted in the description.

Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were evaluated as sensitive as part of this evaluation.⁶ Additionally, any sensitive natural communities as described in the Napa County Baseline Data Report (NCBDR; Napa County 2005) or General Plan (Napa County 2008) were considered.

4.1.2 Aquatic Resources

Aquatic resources include Waters of the U.S., Waters of the State, and Streams, Lakes, and Riparian Habitat as defined in the CWA, Porter-Cologne Act, and CFGC, respectively. Napa County mandates setbacks from these aquatic resources, and therefore requires mapping of the outward extent of such features. This site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales. If sample points were taken, WRA followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008).

If streams potentially jurisdictional under the CWA and/or the CFGC are noted on a site, they are delineated using a mix of surveyed topography data, high resolution aerial photographs, and a sub-meter GPS unit. The OHWM would be used to determine the extent of potential Section 404 jurisdiction, while the top-of-bank would be used to determine the extent of CFGC Section 1602 and 401. Streams with associated woody vegetation were assessed to determine if these areas would be considered riparian habitat by the CDFW following *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994). Finally, all streams were assessed to determine if they meet the Napa County definition of “stream” pursuant to Napa County Code 18.108.030.

4.2 Special-status Species

4.2.1 General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the greater vicinity through a literature and database review. Database searches for known occurrences of special-status species focused on the 7.5-minute USGS quadrangles mentioned above for special-status plants and the entirety of Napa County for special-status wildlife.

A site visit was made on June 29, 2022 to evaluate the presence of suitable habitat for special-status species. Suitable habitat conditions are based on physical and biological conditions of the site, as well as the professional expertise of the investigating biologists. The potential for each

⁶ *Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2018).*

special-status species to occur in the Study Area was then determined according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. Species is observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site in the recent past.

If a more thorough assessment was warranted, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. Methods for the assessments are described below. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2.

4.2.2 Special-status Plants

To determine the presence or absence of special-status plant species, focused surveys were conducted within the SA/PA on June 29, 2022 and April 26, 2023. The surveys correspond to the period sufficient to observe and identify those special-status plants determined to have the potential to occur. The field surveys were conducted by botanists familiar with the flora of Napa and surrounding counties. The surveys were performed in accordance with those outlined by Napa County (2016b), which follow those described by resource experts and agencies (CNPS 2001, CDFW 2018, USFWS 1996). Plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et. al. 2012) and Jepson Flora Project (eFlora 2023), to the taxonomic level necessary to determine if they were sensitive. Plant names follow those of Jepson Flora Project (eFlora 2023), unless otherwise noted.

4.2.3 Special-status Wildlife

A general wildlife assessment was performed during the site visits referenced above. This assessment consisted of traversing the entirety of the SA/PA. Habitat elements required or associated with certain species (e.g., California red-legged frog [*Rana draytonii*]) or species groups (e.g., bats, anadromous fish) were searched for and noted. Such habitat elements include, but are not limited to: plant assemblages and vegetation structure; stream depth, width, hydro-period, slope, and bed-and-bank structure; rock outcrops, caves, cliffs, overhangs, and substrate texture and rock content; history of site alteration and contemporary disturbances; etc.

4.2.4 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

Prior to the site visit the USFWS Critical Habitat Mapper (USFWS 2023c) and the NMFS Essential Fish Habitat Mapper (NMFS 2023) were queried to determine if critical habitat for any species or EFH, respectively, occurs within the Study Area. To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CECP) by Caltrans (2010) and CDFW's Biogeographic Information and Observation System (BIOS) (CDFW 2023c), as well as the NCBDR (Napa County 2005). The CECP maps both 1) "Natural Landscape Blocks," or discrete areas of mostly natural land covers that support biodiversity, and 2) "Essential Connectivity Areas" that provide ecological connectivity between the former. Additionally, aerial imagery (Google Earth 2023) for the local area was referenced to assess if local core habitat areas were present within or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions.

5.0 ASSESSMENT RESULTS

5.1 Land Cover Types

Land cover types observed by WRA within the SA/PA are shown in Figure A-3, and land covers overlain with the Project's limits of disturbance are shown in Figure A-4 (Appendix A). Representative photographs of the site are shown in Appendix D. Six land cover types are present: developed, non-native grassland, blue gum grove, coast live oak woodland, seasonal wetland, and reservoir. The Project Area (residence and associated facilities, road footprint) has been intentionally sited to avoid all sensitive aquatic resources and limit impacts to the oak woodland canopy.

5.1.1 Terrestrial Land Cover Types

Developed Area (no vegetation alliance). CDFW Rank: None. Within the Study Area, the developed portion is composed of existing vineyard blocks, two residences, various outbuildings and viticultural facilities, and access roads. The vegetation and soils are highly altered, consisting of overhanging native trees, landscape species, and disturbance tolerant herbs. Species include coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*), California bay (*Umbellularia californica*), Peruvian pepper tree (*Schinus molle*), stinkwort (*Didtrichia graveolens*), purple star thistle (*Centaurea calcitrapa*), field burweed (*Soliva sessilis*), and red sand spurry (*Spergularia rubra*).

The developed area totals 37.3 acre in the Study Area and 23.7 acres in the Project Area (approximately 64 percent of the total land cover type in the Study Area); most of the latter consists of existing vineyard development. This community is synonymous with the Urban/Built-up biotic community in the NCLC (Thorne et al. 2004). This community is not considered sensitive by Napa County, CDFW, or any other regulatory entity.

Non-native Annual Grassland – Wild Oat Grassland (*Avena barbata* Semi-Natural Herbaceous Stands). CDFW Rank: None. Non-native grasslands occur throughout cismontane California, particularly in the Sierra Foothills, Coast Range, Transverse Range, and Peninsular Ranges (Sawyer

et al. 2009, CNPS 2023b). These grasslands are situated on a variety of landscapes including coastal terraces, valley bottoms, and foothills underlain by a variety of soil types. The Study Area contains 45.1 acres of this community type, of which 4.7 acres are situated in the Project Area (approximately 10 percent of the total land cover type in the Study Area).

The dominant cover is the herbaceous layer, which is dominated by non-native grasses of wild oat (*Avena barbata*), soft chess (*Bromus hordeaceus*), dogtail grass (*Cynosurus echinatus*), and Italian rye grass (*Festuca perennis*). Native wildflowers are not uncommon in portions of the grassland including miniature lupine (*Lupinus bicolor*), sky lupine (*Lupinus nanus*), California poppy (*Eschscholzia californica*), common soap plant (*Chlorogalum pomeridianum*), and common yarrow (*Achillea millefolium*).

This community is synonymous with the California Annual Grasslands Alliance biotic community in the NCLC (Thorne et al. 2004). Generally, these grasslands provide habitat for numerous common native plants and wildlife, as well as have the potential to support several special-status species associated with grasslands. These grasslands are not considered sensitive by the CDFW or Napa County.

Blue Gum Grove (*Eucalyptus globulus* Semi-Natural Woodland Stands). CDFW Rank: None. Blue gum groves are known from the Coast Ranges and Central Valley, typically as planted woodlands and shelterbelts to buffer coastal winds and provide shade. These groves are not described in Holland (1986) but are included in Sawyer et al. (2009). This vegetation alliance is dominated by one of several eucalyptus species (*Eucalyptus* spp.), all of which are not native to North America. Blue gum (and other eucalyptus) groves are frequently situated in rural and semi-urbanized settings, along streams, and coastal hills/prairies. The Study Area contains 1.0 acre of blue gum grove, none of which is within the Project Area.

The overstory of this alliance is entirely composed of blue gum (*Eucalyptus globulus*), an invasive species listed as “limited” by the California Invasive Plant Council (Cal-IPC 2020). As is typical of blue gum groves because of allelopathic chemicals in fallen leaves and branches, the understory is low-growing and relatively bare, and composed of non-native, weedy species such as ripgut brome (*Bromus diandrus*) and wild oat (*Avena barbata*).

This community is synonymous with the Eucalyptus Alliance biotic community in the NCLC (Thorne et al. 2004). These groves provide habitat for numerous common wildlife, as well as have the potential to support several special-status bird and bat species associated with wooded areas. Neither CDFW nor Napa County consider these groves a sensitive natural community.

Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance). CDFW Rank: G5 S4: Coast live oak woodlands occur in the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County (Sawyer et al. 2009, CNPS 2020b). These woodlands are typically situated on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content (Sawyer et al. 2009). The Study Area contains 19.5 acres of coast live oak woodland, none of which is within the Project Area.

The dominant tree is coast live oak (*Quercus agrifolia*), with scattered cover of blue oak (*Q. douglasii*) valley oak (*Quercus lobata*), and California bay (*Umbellularia californica*). Predominant

understory species include poison oak (*Toxicodendron diversilobum*), rough hedgesettle (*Stachys rigida*), common bedstraw (*Galium aparine*), blue field madder (*Sherardia arvensis*), Italian thistle (*Carduus pycnocephalus*), and numerous non-native annual grasses.

This community is synonymous with the Coast Live Oak Alliance biotic community in the NCLC (Thorne et al. 2004). These woodlands provide habitat for numerous common native plants and wildlife, as well as have the potential to support several special-status species associated with woodlands. The CDFW does not consider coast live oak woodland a sensitive natural community. Conversely, these woodlands are considered sensitive Napa County under the General Plan Conservation Element Policy CON-24 (oak woodland retention).

5.1.2 Aquatic Resources

Seasonal Wetland – Italian Rye Grass Grassland (*Festuca perennis* Herbaceous Alliance). Section 404/401 CWA; CDFW Rank: None. Seasonal wetlands are known from a variety of topographic positions and soil types where surface waters collect and flows are reduced, or subsurface waters approach the soil surface as a rising water table or seep. In the Study Area, three seasonal wetlands collectively occupy 0.6 acre as seasonal swales; these swales are situated entirely outside of the Project Area.

The vegetation in these features is dominated by hydrophytes including Italian rye grass (*Festuca perennis*), meadow barley (*Hordeum brachyantherum*), Mediterranean barley (*Hordeum marinum*), rabbit's-foot grass (*Polypogon monspeliensis*), toad rush (*Juncus bufonius*), poverty rush (*J. tenuis*), and seep monkeyflower (*Erythranthe guttata*). The soils support redoximorphic features (iron rust) and were saturated in April 2023. Likewise, wetland hydrology indicators included saturation and oxidized rhizospheres (rusted roots). Because all three wetland parameters (vegetation, soil, and hydrology) are clearly evidenced, those areas mapped as wetland in the Study Area would be considered sensitive by Napa County and jurisdictional under the CWA.

Reservoir. CWA Section 404/401, CDFW Section 1602. Rank: None. The Study Area contains three reservoirs (manmade ponds), each of which contains a clear OHWM. The edges contain some emergent wetland vegetation, but this fringe is neither contiguous nor wider than two or three feet. Species in this fringe variably include overhanging Pacific willow (*Salix lasiandra*) and arroyo willow (*Salix lasiolepis*), with common spikerush (*Eleocharis macrostachya*), narrowleaf cattail (*Typha angustifolia*), and common cattail (*Typha latifolia*) rooted in the banks and shallows. These features are likely to be considered jurisdictional under Section 404/401 of the CWA, the Porter Cologne Act, and Section 1600 of the CFGC; therefore, they are considered a sensitive aquatic resource.

5.2 Special-status Species

5.2.1 Special-status Plant Species

Based upon a review of the resource databases listed in Section 4.0, 73 special-status plant species have been documented in the vicinity of the SA/PA. As outlined in Appendix C, twenty-six of these plants have the potential to occur in the Study Area.⁷ The remaining 47 special-status plants

⁷ As per these databases, there are no documented occurrences of special-status mosses, bryophytes or lichens in Napa County.

documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., tidal, riverine) necessary to support the special-status plant species are not present in the Study Area.
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Study Area.
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Study Area.
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Study Area.
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Study Area.
- The Study Area is geographically isolated (e.g., below elevation, coastal environ) from the documented range of the special-status plant species.
- Land use history and contemporary management (e.g., absence of mowing or grazing) has degraded the localized habitat necessary to support the special-status plant species.

WRA biologists conducted several site visits during a period sufficient to identify all 26 special-status plant species with the potential to occur within the Study Area. No special-status plants were observed during these surveys, and as such these species are considered absent at the site. The following is a list of those plants with the potential to occur within the SA/PA but were not observed during surveys conducted in spring and summer of 2023 and 2022, respectively.

- Henderson's bentgrass (*Agrostis hendersonii*); CRPR 3
- Franciscan onion (*Allium peninsulare* var. *franciscanum*); CRPR 1B
- Napa false indigo (*Amorpha californica* var. *napensis*); CRPR 1B
- Bent-flowered fiddleneck (*Amsinckia lunaris*); CRPR 1B
- Clara Hunt's milk-vetch (*Astragalus claranus*); FE, ST, CRPR 1B
- Alkali milk-vetch (*Astragalus tener* var. *tener*); CRPR 1B
- Sonoma sunshine (*Blennosperma bakeri*); FE, SE, CRPR 1B
- Johnny-nip (*Castilleja ambigua* var. *ambigua*); CRPR 4
- Mead's owl-clover (*Castilleja ambigua* var. *meadii*); CRPR 1B
- Dwarf downingia (*Downingia pusilla*); CRPR 2B
- Streamside daisy (*Erigeron biolettii*); CRPR 3
- Jepson's coyote thistle (*Eryngium jepsonii*); CRPR 1B
- Nodding harmonia (*Harmonia nutans*); CRPR 4
- Diablo helianthella (*Helianthella castanea*); CRPR 1B
- Hayfield tarplant (*Hemizonia congesta* ssp. *congesta*); CRPR 1B
- Contra Costa goldfields (*Lasthenia conjugens*); FE, CRPR 1B
- Legenere (*Legenere limosa*); CRPR 1B
- Bristly leptosiphon (*Leptosiphon aureus*); CRPR 4, LR
- Sebastopol meadowfoam (*Limnanthes vinculans*); FE, SE, CRPR 1B
- Mt. Diablo cottonweed (*Micropus amphibolus*); CRPR 3
- Few-flowered navarretia (*Navarretia leucocephala* ssp. *pauciflora*); FE, ST, CRPR 1B

- Lobb's buttercup (*Ranunculus lobbii*); CRPR 4
- Sanford's arrowhead (*Sagittaria sanfordii*); CRPR 1B
- Showy rancheria clover (*Trifolium amoenum*); FE, CRPR 1B
- Saline clover (*Trifolium hydrophilum*); CRPR 1B
- Oval-leaved viburnum (*Viburnum ellipticum*); CRPR 2B

5.2.2 Special-status Wildlife Species

A total of 60 special-status wildlife species have been documented in Napa County (CDFW 2023a, Napa County 2005). As outlined in Appendix C, one of these species was observed during WRA's site visits to the Study Area, seven additional species have the potential to occur there, and four other species (all colonial-nesting heron [bird] species) were assessed as having potential to occur but were determined to be absent.⁸ The remaining 48 species are unlikely or have no potential to occur due to one or more of the following reasons:

- Aquatic habitats (e.g., rivers, estuaries) necessary to support the special-status wildlife species are not present in the Study Area
- Vegetation habitats (e.g., coast redwood forest, coastal prairie, dense emergent marsh) that provide nesting and/or foraging resources necessary support the special-status wildlife species are not present in the Study Area
- Physical structures and vegetation (e.g., mines/caves, riparian forest) necessary to provide nesting, cover, and/or foraging habitat to support the special-status wildlife species are not present in the Study Area
- Host plants (e.g., dog violet, harlequin lotus) necessary to provide larval and nectar resources for the special-status wildlife species are not present in the Study Area
- The Study Area is outside (e.g., north of, west of) of the special-status wildlife species documented local range (including breeding range for birds)

Special-Status Wildlife Observed

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. High Potential. The white-tailed kite is resident year-round in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

The SA/PA and some of the surrounding areas provide suitable year-round habitat for white-tailed kites, including stands of oak woodland for nesting and open areas in proximity for foraging. One white-tailed kite was observed foraging on-site in June 2022. Though no

⁸ The subject heron species were not observed in any capacity during site visits. Based on this as well as Project specifics, no additional attention or dedicated measures for these species are warranted.

indication of on-site nesting was observed during either of WRA's site visits there is potential for such to occur in the future.

Special-status Wildlife with Potential to Occur

Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, WBWG High Priority. Moderate Potential. The pallid bat occurs in a variety of habitats ranging from rocky arid deserts to grasslands, and coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2023). Trees within the Study Area (larger, more aged oaks) may contain cavities or snags suitable for roosting by this species, and there are CNDDDB occurrences in the vicinity (CDFW 2023a). However, trees are absent within the Project Area and no other potential bat roosts are present there. A targeted bat habitat assessment was not performed under this biological assessment.

Fringed myotis (*Myotis thysanodes*). WBWG High Priority. Moderate Potential. The fringed myotis ranges throughout much of western North America. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in California (WBWG 2023). Trees within the Study Area (larger, more aged oaks) may contain cavities or exfoliating bark suitable for roosting. However, trees are absent within the Project Area and no other potential bat roosts are present there. A targeted bat habitat assessment was not performed under this biological assessment.

American badger (*Taxidea taxus*). CDFW Species of Special Concern. Moderate Potential. The American badger is a large, semi-fossorial member of the Mustelidae (weasel family). It is found uncommonly within the region in drier open stages of most scrub, woodland, and herbaceous habitats where friable soils and prey populations are present. Badgers are typically solitary and nocturnal, digging burrows to provide refuge during daylight hours. Burrow entrances are usually elliptical (rather than round), and each burrow generally has only one entrance. Young are born in the spring and become independent by the end of summer. Badgers are carnivores, preying on a variety of fossorial mammals (especially ground squirrels and pocket gophers) and occasionally other vertebrates including bird eggs. Home ranges for this species tend to be large, depending on the habitat available; population density averages one badger per square mile in prime open country (Long 1973).

The SA/PA features woodland open grassland and is contiguous with similar, undeveloped areas to the north and south. There is a historic CNDDDB occurrence for this species approximately 0.8 mile to the south (from 1911; CDFW 2023a), though no more recent observations in the vicinity. Potential badger burrows were looked for during the site visit

and not observed anywhere in the Study Area. However, if a local population exists, there is some potential for the species to be present in the future.

Swainson's hawk (*Buteo swainsoni*). State Threatened. Moderate Potential. Swainson's hawk is a summer (breeding) resident and migrant in lowlands of California, primarily occurring in the Central Valley but also other low-lying areas near the coast including Napa County. Nests are constructed of sticks and placed in trees located in otherwise largely open land covers. Areas typically used for nesting include bands of riparian vegetation, patches of oak woodland, lone trees, as well as planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including grasslands, open woodlands, and some agricultural areas. While breeding, adults feed primarily on rodents (and other vertebrates); for the remainder of the year, large insects (e.g., grasshoppers, dragonflies) comprise most of the diet. In many areas this species has adapted to foraging primarily in and around favorable agricultural plots (particularly alfalfa, wheat and row crops), as prey is both numerous and conspicuous at harvest and/or during flooding or burning (Bechard et al. 2010).

Napa County hosts a population of breeding Swainson's hawks that appears to be increasing. CNDDDB currently includes 15 nesting occurrences in the County, nearly all of which are in bayland areas south and southwest of the City of Napa; the nearest occurrence is located approximately 1.6 miles southwest of the Study Area (CDFW 2023a). The SA/PA provides open grassland areas for foraging and trees suitable for nesting; such trees are absent within the Project Area but present in proximity to it. This species was looked for during site visits and not observed, though it has the potential to be present (including nesting) in future years.

Loggerhead shrike (*Lanius ludovicianus*). CDFW Species of Special Concern. Moderate Potential. The loggerhead shrike is a year-round resident and winter visitor in lowlands and foothills throughout California, associated with open country featuring short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although songbirds, shrikes are predatory and forage on a variety of invertebrates and small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. Nests are usually placed three to ten feet off the ground in trees or larger shrubs (Shuford and Gardali 2008). The SA/PA provides suitable habitat for this species, including open grasslands for foraging, trees/shrubs for nesting, and fence posts and other perches; trees are absent within the Project Area but present in proximity to it. This species was looked for during site visits but not observed; there are nearby observations in eBird (2023) and shrikes may be found on-site in the future.

Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*). CDFW Species of Special Concern. Moderate Potential. This subspecies of the common and widespread savannah sparrow is a year-round resident of the coastal California fog belt. It typically occupies upper tidally-influenced areas, often found where wetland communities merge into grassland; drier, more inland coastal grasslands are also occupied. Nesting occurs in vegetation on or near the ground, including along roads, levees, and canals (Shuford and Gardali 2008). Like most sparrows Bryant's consumes primarily invertebrates and vegetable matter (e.g., seeds). The SA/PA provides areas of open grassland that may be used by this

species, including during the breeding season; nesting may occur within portions of the Project Area.

Western pond turtle (*Emys marmorata*). CDFW Species of Special Concern. Moderate Potential. The western pond turtle is the only freshwater turtle native to most of California. This species is highly aquatic, typically inhabiting perennial waters including lakes, ponds/reservoirs, rivers, streams, and canals that provide submerged cover and suitable exposed basking structures such as rocks, logs and mats of emergent vegetation. Nesting usually occurs in spring to early summer, with eggs hatching in the fall; nests are excavated in upland areas with friable soil, usually on unshaded slopes within 300 feet of water (Thomson et al. 2016). Hatchlings require shallow water with relatively dense emergent and aquatic vegetation to provide forage, usually aquatic invertebrates (Thomson et al. 2016).

The Study Area's reservoirs provide suitable perennial aquatic habitat for western pond turtles; none of these reservoirs are within the Project Area. The feature in the northwestern portion of the site provides the highest quality habitat overall, with aquatic vegetation, basking sites, and relatively shallow banks with surrounding grassland. The eastern reservoir also has some potential to be occupied, though its banks are often steeper. The southwestern reservoir is surrounded by vineyard development and less likely to be occupied. This species was looked for during site visits and not observed, though these results are not considered conclusive.

5.2.3 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

The SA/PA does not contain any designated Critical Habitat (USFWS 2023c, NMFS 2023) or Essential Fish Habitat (NMFS 2023).

As per mapping by the CECP the Study Area is not within a Natural Landscape Block or an Essential Connectivity Area (Caltrans 2010, CDFW 2023c), and vineyard and urban development in the vicinity limit any potential landscape-scale movement functions. At a localized scale, the SA/PA is bounded by vineyard development to the west, much of the north, and to the southwest; residential development is present to the east. Potential local movement corridors are present only in the central-eastern portion of the Study Area (which includes some of the Project Area), where there is some connectivity between undeveloped lands to the north (grassland and oak woodland) and the largely undeveloped property to the south (primarily oak woodland/forest).

6.0 PROJECT ANALYSIS AND RECOMMENDATIONS

6.1 Land Cover Types

6.1.1 Terrestrial Land Cover Types

Coast Live Oak Woodland

Coast live oak woodlands are not explicitly considered sensitive by CDFW or included as sensitive in the NCBDR; however, the Napa County General Plan Conservation Element Policy CON-24

requires that oak woodland be maintained and/or improved to the extent feasible. Policy CON-24c specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. Code Section 18.108.020(C) requires that 70 percent of canopy cover be retained based on the on-site canopy present on June 16, 2016. Code Section 18.108.020(D) requires that the removal of tree canopy on an acreage basis be mitigated at a 3:1 ratio (which is equivalent to 75 percent retention) where the areas to be preserved must generally occur on slopes less than 50 percent (preferably less than 30 percent) and outside of stream and wetland setbacks.

The Study Area contains 19.5 acres of oak woodland; to ensure that a 3:1 ratio is maintained of 3 acres of oak woodland preserved for each 1 acre impacted, only 4.9 acres can be impacted. The Project will avoid any tree removal (including within oak woodland land covers) and as such all existing oak woodland will be retained in this context. Note that if it is subsequently determined that tree removal or other impacts to this land cover (e.g., damage to roots sufficient to harm individual trees) are required to accommodate the Project, the County would expect a re-evaluation of oak woodland retention and preservation requirements.

6.1.2 Aquatic Resources

The Study Area contains three seasonal wetlands and three reservoirs (ponds). The Project Area is set back 50 feet or greater from the outward edge of all of these aquatic features as per 18.108.026 of the Napa County Code. As such, no further actions are recommended for aquatic resources.

6.2 Special-status Species

6.2.1 Special-status Plants

No special-status plants were observed within the SA/PA during the protocol-level botanical surveys conducted in 2022 (summer) and 2023 (spring). Consequently, the Project will not impact special-status plants; therefore, there are no further actions recommended for such.

6.2.2 Special-status Wildlife

The SA/PA has the potential to support eight special-status wildlife species (two bats and one other mammal, four birds, and one reptile), as well as non-status birds protected under the MBTA and CFGC. The POU modification component of the Project itself will have no direct impacts on special-status wildlife; potential indirect impacts are limited to habitat loss due to vineyard expansion. The following measures are recommended to avoid or otherwise minimize potential impacts to these species.

Bat Species: Two special-status bats have the potential to occur within the Study Area (pallid bat, fringed myotis). However, the Project will avoid tree removal and not require the demolition of any buildings/structures and thus avoid any impacts to potential bat roost substrates. As such the Project is not anticipated to result in any potentially significant impacts to special-status bats, and no associated recommendations are warranted.

American Badger: No indication of on-site presence by American badgers was observed within the SA/PA during site visits. However, if present in the vicinity this species could occur on-site in the future, including within open non-native grassland. Destruction of active badger burrows could

result in badger injury or mortality, including to badger young if burrows are impacted during the breeding period. No potentially significant impacts to badger habitat or foraging by the Project are anticipated, given the relatively small total area of impact and disturbance which will leave most of the site's grasslands and adjacent woodland areas intact. To avoid potential impacts to badgers, the following measure is provided.

Recommendation 1: WRA recommends that a pre-construction survey for badger burrows/dens be performed by a qualified biologist within and adjacent to (within approximately 150 feet of) the Project Area no more than 10 days prior to the initiation of ground disturbance (or other disruptive activities). (This survey could be conducted concurrently with other pre-construction surveys.) If survey results indicate that this species is present during the general breeding period (roughly spring through summer), the biologist should assess if young are present in any identified dens, e.g., using track plates or motion cameras. If young are deemed present, an exclusionary buffer should be placed around each occupied den until all young are independent; the size (radius) of the buffer should be determined by the biologist and should be at least 200 feet in the context of mechanized equipment use. Once young are independent or if badgers are found to be present during the nonbreeding period, use of the site should be discouraged using passive relocation techniques (e.g., placing one-way doors across den entrances) to remove badgers from areas to be impacted prior to the initiation of ground disturbance.

Swainson's Hawk: The state threatened Swainson's hawk has the potential to occur within the Study Area, including on-site nesting. Though not a component of the Project, note that tree removal (including trimming/removal of limbs) during the nesting season has the potential to harm or destroy an active nest (a violation of CESA). Additionally, ground disturbance and construction activities may result in disruption to breeding activities, including and up to nest abandonment, if an active nest is present in the immediate vicinity. Because land conversion within the Study Area will be relatively limited (only 4.7 acres of approximately 45 acres of annual grassland within the Study Area will be converted), no potentially significant impacts to Swainson's hawk foraging are anticipated. To avoid impacts to nesting Swainson's hawks, a pre-construction survey effort specific to this species is recommended.

Recommendation 2: WRA recommends that initial ground disturbance occur from September 1 to February 28, outside of the local Swainson's hawk nesting season. If adhering to this work window is not feasible, a pre-construction survey effort for Swainson's hawk should be performed by a qualified biologist. This effort should involve a minimum of three individual surveys, spaced at least one week (seven days) apart, prior to the initiation of Project activities. Individual surveys should follow the protocol outlined in "Recommended Timing and Methodology for Swainson's Hawk Nesting in California's Central Valley" by SHTAC (2000).⁹ As per the protocol, surveys should not be performed from April 20 to June 10, due to specifics of nesting behavior when nests are harder to detect. Each survey would cover the Study Area and accessible/visible areas within approximately 0.5 mile of the site. (Note that the final Swainson's hawk survey could be conducted

⁹ Note that this survey protocol was developed in the context of relatively large-scale land conversions in the Central Valley and designed (in part) to assess impacts to foraging habitat, thus requiring a minimum of six and up to nine surveys; this higher level of effort is not warranted for the Project.

concurrently with a general nesting bird survey; see Recommendation 3.) Any active Swainson's hawk nests found would be protected by a work exclusion buffer; the size of each buffer would be determined by the qualified biologist to ensure that the nest is not abandoned due to disturbance, or otherwise harmed. Factors that may influence the size of the buffer include nest location, ambient noise/disturbance conditions in the area, topography (e.g., line-of-site or lack thereof to the Project Area), behavior of the individual birds in question, and other factors. An implemented work exclusion buffer would remain in place until all young in the nest have fledged or it otherwise is confirmed as inactive by the biologist.

Other Bird Species: Loggerhead Shrike, Bryant's Savannah Sparrow, White-tailed Kite, and non-special-status species: In addition to Swainson's hawk (discussed above), three additional special-status bird species (loggerhead shrike, Bryant's savannah sparrow, and white-tailed kite) as well as various non-status bird species with baseline protections under the MBTA and CFGC may use vegetation within the Project Area for nesting. Pre-construction surveys are recommended to ensure that the implementation of the Project would not impact any nesting birds.

Recommendation 3: WRA recommends that initial ground disturbance occur from September 1 to January 31, outside of the general bird nesting season. If adherence to this work window is not feasible, a pre-construction nesting bird survey should be performed by a qualified biologist no more than 14 days prior to the initiation of ground disturbance. The survey should cover the Project Area (including any tree removal areas if contemplated in the future) and surrounding areas within 500 feet. If active bird nests are found during the survey, an appropriate no-disturbance buffer should be established by the qualified biologist. Buffer sizes may vary dependent on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer may be lifted and work may be initiated within the buffer.

Western Pond Turtle: Although western pond turtle was not observed during site visits, the Study Area's reservoirs, particularly the northwestern and eastern reservoirs, provide suitable aquatic habitat and the species may be present in the future. If pond turtles are present upland nesting near the reservoirs may also occur. However, Project activities will avoid the reservoirs including their immediate shorelines (along with basking substrates), reducing the risk of harm to adult pond turtles. While ground disturbance near the reservoirs has some potential to impact turtle nests in the substrate (if present) as well as adult turtles and/or hatchlings moving to/from the pond to upland areas, such disturbance will only occur in proximity (within 300 feet) to the easternmost reservoir. To avoid any potential impacts to nesting activities of this species, the following measures are provided.

Recommendation 4: WRA recommends that a presence/absence survey for western pond turtles focused on the easternmost reservoir be performed prior to April 1 (see context below) in the year when ground disturbance is planned. The survey should be performed by a qualified biologist using suitable methods, i.e., surveying the focal reservoir on a sunny day from suitable distant vantage points as to limit potential disturbance to turtles and increase the chances of detection of any that are present. Alternately, presence of the species within the reservoir may simply be assumed with no survey performed.

If the species is observed on-site or presence is assumed, exclusion fencing should be installed during the wet season (prior to April 1) around the northern boundary of the disturbance area in such a manner as to preclude turtles from entering ground disturbance areas with suitable nesting habitat, e.g., grassland and other relatively open areas. The fencing should have a minimum height above ground of 24 inches, the bottom of the fence buried to a minimum depth of 4 inches. Erosion control fencing (silt fencing) may serve as the exclusion fence if it meets the requirements above. Specific location(s) of the fencing should be approved by a qualified biologist prior to installation, and inspected by the biologist following installation to ensure that it is effective. The fencing should remain installed until on-site mechanized ground disturbance is completed.

If pond turtles are observed on-site, prior to the initiation of work, a biological education program should also be provided by the qualified biologist to all personnel that will be present at the site during ground disturbance and related activities. The worker education program should include information regarding the identification of western pond turtle (including photographs), the potential for occurrence within work areas, the purpose of the exclusion fencing and importance of maintaining it, and specific measures being implemented to avoid impacts (which will include halting all ground disturbance and immediately alerting the qualified biologist if western pond turtle is observed in work areas over the course of the work).

6.2.3 Wildlife Movement

The central-eastern portion of the SA/PA provides local connectivity with undeveloped lands to the north and south. While the Project will convert 4.7 acres of non-native grassland to vineyard, the two areas of undeveloped (non-vineyard) land directly abutting the property to the south will remain in place, though the eastern of these two areas will be reduced in width from approximately 265 feet at its narrow point (currently) to approximately 100 feet. Given that any movement functions provided are already highly localized, most of the site's currently undeveloped lands will remain in this state, and connectivity with the property to the south will remain in place, the Project is not anticipated to result in any potentially significant impacts to wildlife movement or migration.

7.0 REFERENCES

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.). 2012. The Jepson Manual: Vascular Plants of California, 2nd Edition. University of California Press, Berkeley, CA. 1568 pp.
- Bechard, M., C. Houston, J. Sarasola, and A. England. 2010. Swainson's Hawk (*Buteo swainsoni*), The Birds of the World Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of the World Online: <https://birdsoftheworld.org/bow/species/swahaw/cur/introduction>. Accessed September 2023.
- California Department of Fish and Game (CDFG). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607. Environmental Service Division, California Department of Fish and Game, Sacramento, CA.
- (CDFG). 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game, Sacramento, CA. September 2010.
- California Department of Fish and Wildlife (CDFW). 2023a. California Natural Diversity Database (CNDDB), Wildlife and Habitat Data Analysis Branch. Sacramento, CA. Most recently accessed: September 2023.
- (CDFW). 2023b. California Natural Community List. Vegetation Classification and Mapping Program, California Department of Fish and Game, Sacramento, CA. Originally published January 2018; most recently updated June 1, 2023.
- (CDFW). 2023c. Biogeographic Information and Observation System (BIOS). Wildlife and Habitat Data Analysis Branch. Sacramento. Available online: <http://https://wildlife.ca.gov/Data/BIOS>. Most recently accessed: September 2023.
- (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities. California Natural Resources Agency, California Department of Fish and Game. March 20, 2018.
- California Department of Transportation (CalTrans). 2010. California Essential Habitat Connectivity Project. Available at: <https://www.wildlife.ca.gov/conservation/planning>.
- California Invasive Plant Council (Cal-IPC). 2006. California Invasive Plant Inventory: Cal-IPC Publication 2006-2. California Invasive Plant Council, Berkeley, CA. Available online: <http://www.cal-ipc.org/ip/inventory/index.php>. Accessed: September 2023.
- California Native Plant Society (CNPS). 2001. CNPS Botanical Survey Guidelines. June 2, 2001.
- (CNPS). 2023a. Online Inventory of Rare, Threatened, and Endangered Plants of California. Available at: <http://www.rareplants.cnps.org/>. Most recently accessed: September 2023.

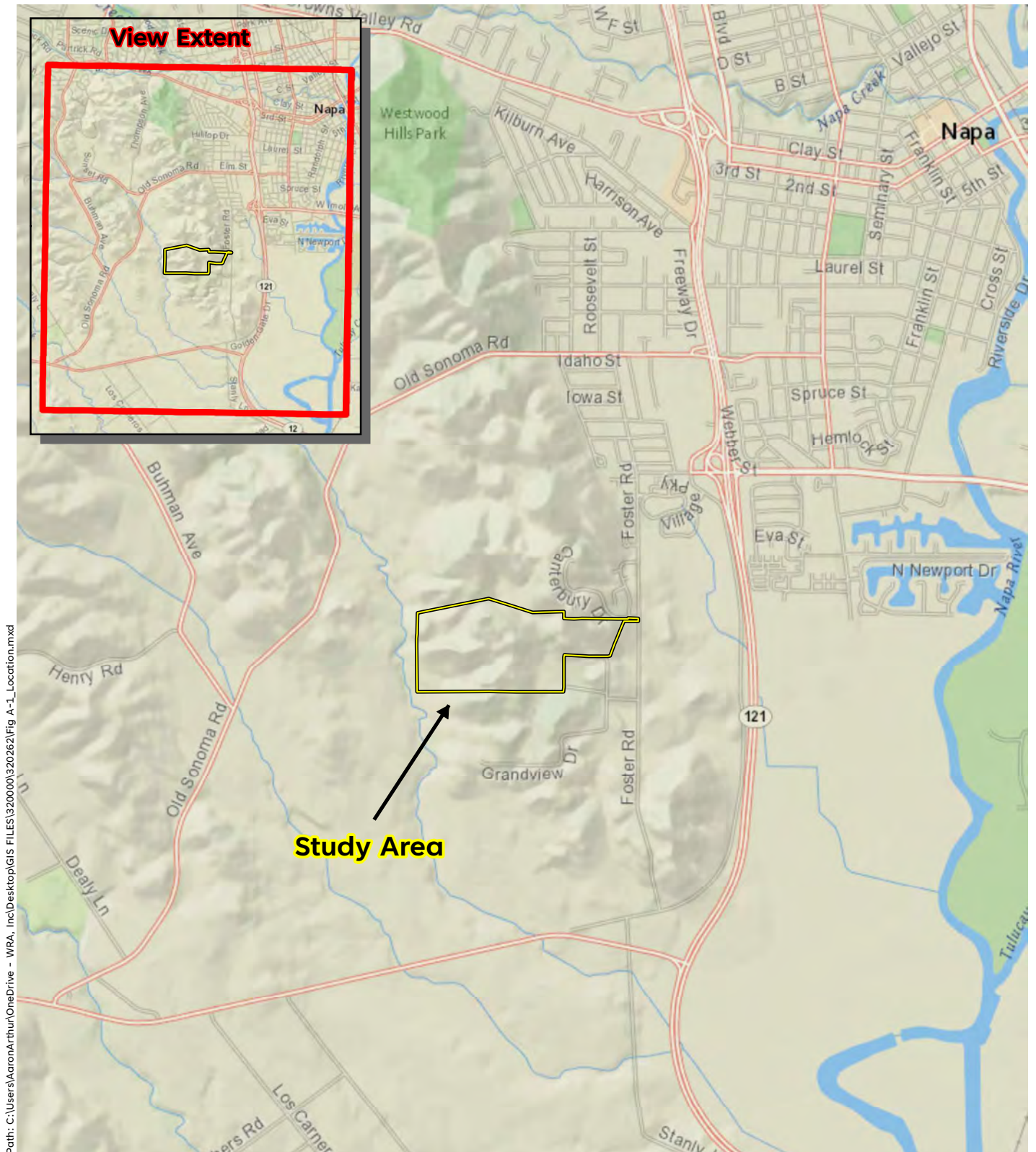
- (CNPS). 2023b. A Manual of California Vegetation Online. Available at: <http://vegetation.cnps.org/>. Most recently accessed: September 2023.
- California Soil Resources Lab (CSRL). 2023. Online Soil Survey. Available at: <http://casoilresource.lawr.ucdavis.edu/drupal/>. Accessed: September 2023.
- Consortium of California Herbaria (CCH). 2022. Data provided by the participants of the Consortium of California Herbaria. Available at: <http://ucjeps.berkeley.edu/consortium>. Accessed: September 2023.
- Dunk, J. 1995. White-tailed Kite (*Elanus leucurus*), The Birds of the World Online (A Poole, Ed.). Ithaca: Cornell Lab of Ornithology: <https://birdsoftheworld.org/bow/species/whtkit/cur/introduction>. Accessed: September 2023.
- eBird. 2023. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. Most recently accessed: September 2023.
- Jepson Herbarium. Jepson Flora Project (eFlora). 2023. Jepson eFlora Online at: <http://ucjeps.berkeley.edu/IJM.html>. Accessed: September 2023.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.
- Google Earth. 2023. Napa, Napa County area. Image dates: 1993-2023. Most recently accessed: September 2023.
- Historical Aerials. 2023. Available at: <http://historicalaerials.com>. Accessed: September 2023.
- Holland, R. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento, CA. 156 pp.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. *Phytoneuron* 2016-30: 1-17.
- Napa County. 2005. Napa County Baseline Data Report. Available at: <http://www.co.napa.us/gov/>.
- Napa County. 2008. Napa County General Plan. June 2, 2008. Available at: <http://www.co.napa.ca.us/GOV/Departments/>.
- Napa County. 2016a. Attachment B: Guidelines for Preparing Biological Resources Reconnaissance Surveys. Planning, Building, and Environmental Services. August 2016.
- Napa County. 2016b. Attachment C: Guidelines for Preparing Special-status Plant Studies. Planning, Building, and Environmental Services. August 2016.

- Napa County. 2023. Napa County Public Browser (Online Map). Available at: http://gis.napa.ca.gov/Html5Viewer/Index.html?viewer=Public_HTML. Accessed: September 2023.
- National Marine Fisheries Service (NMFS). 2023. Essential Fish Habitat Mapper. Available at: <https://www.habitat.noaa.gov/protection/efh/efhmapper/>. Most recently accessed: September 2023.
- NatureServe. 2023. NatureServe Explorer: NatureServe Conservation Status. Available at: <http://www.natureserve.org/explorer/ranking#relationship>. Accessed: September 2023.
- San Francisco Estuary Institute (SFEI). 2023. California Aquatic Resource Inventory (CARI). Available at: <http://www.sfei.org/cari#sthash.Mzz93W9i.dpbs>. Accessed: September 2023.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society in collaboration with California Department of Fish and Game. Sacramento, CA. 1300 pp.
- Shuford, W.D. and Gardali, T., eds. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Smith, A., ed. 2003. Breeding Birds of Napa County, California. Napa-Solano Audubon Society, Vallejo, California. 199 pp.
- Stebbins, RC. 2003. A Field Guide to Western Reptiles and Amphibians, Third Edition. Houghton Mifflin Company, Boston, MA and New York, NY.
- Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting in California's Central Valley. 5 pp. May.
- Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Co-published by the California Department of Fish and Wildlife and University of California Press. Oakland, California.
- Thorne, J., Kennedy, J., Quinn, J., McCoy, M., Keeler-Wolfe, T. A Vegetation Map of Napa County Using the Manual of California Vegetation Classification and its Comparison to Other Digital Vegetation Maps. Information Center for the Environment (ICE). University of California, Davis. 2004.
- U.S. Army Corps of Engineers (Corps). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). U.S. Army Corps of Engineers, Engineer Research and Development Center, Vicksburg, MS. September 28, 2008.
- U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS). 1978. Soil Survey of Napa County, California. In cooperation with the University of California Agricultural Experiment Station.

- (USDA), Natural Resources Conservation Service (NRCS). 2014. Official List of California Hydric Soils.
- (USDA), (NRCS). 2017. Field Indicators of Hydric Soils in the United States, Version 8.1. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). In cooperation with the National Technical Committee for Hydric Soils.
- (USDA), (NRCS). 2023. Climate Information for Napa County in the State of California. Available at: <http://www.wcc.nrcs.usda.gov/>. Accessed: September 2023.
- U.S. Fish and Wildlife Service (USFWS). 2023a. National Wetlands Inventory. Available at: <http://www.fws.gov/wetlands/index.html>. Most recently accessed: September 2023.
- (USFWS). 2022b. Information for Planning and Consultation (IPaC). Available online at: <https://ecos.fws.gov/ipac/>. Most recently accessed: October 2022.
- (USFWS). 2023c. Threatened and Endangered Species Active Critical Habitat Report. Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. Most recently accessed: September 2023.
- U.S. Geological Survey (USGS). 2015. Calistoga, California 7.5-minute quadrangle topographic map.
- Western Bat Working Group (WBWG). 2023. Species Accounts. Available at: http://www.wbwg.org/speciesinfo/species_accounts/species_accounts.html. Accessed: September 2023.

Appendix A

Figures



Sources: National Geographic, WRA | Prepared By: AaronArthur, 9/19/2023

Figure A-1. Study Area Location

1200 Grandview Drive
Napa County, CA

0 0.5 1
Miles



Path: C:\Users\AaronArthur\OneDrive - WRA, Inc\Desktop\GIS FILES\320000\320262\Fig A-2+_Landscape.mxd



Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: AaronArthur, 9/20/2023

Figure A-2. Soil Mapping Units

1200 Grandview Drive
Napa County, CA

0 100 200
Feet



Path: C:\Users\AaronArthur\OneDrive - WRA, Inc\Desktop\GIS FILES\320000\320262\Fig A-2+_Landscape.mxd



Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: AaronArthur, 9/20/2023

Figure A-3. Land Cover: Study Area

1200 Grandview Drive
Napa County, CA

0 100 200
Feet





Figure A-4. Land Cover: Project Area

1200 Grandview Drive
Napa County, CA

0 100 200
Feet



Appendix B

Species Observed in the Study Area

Table B-1. Plant species observed in the Study Area: June 29, 2022 and April 26, 2023

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Agavaceae	<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	common soap plant	perennial forb	native	--	--	NL
Amaranthaceae	<i>Amaranthus albus</i>	pigweed amaranth	annual forb	non-native	--	--	FACU
Anacardiaceae	<i>Schinus molle</i>	Peruvian pepper tree	evergreen tree	non-native	--	limited	NL
Anacardiaceae	<i>Toxicodendron diversilobum</i>	poison oak	deciduous shrub	native	--	--	FACU
Apiaceae	<i>Daucus carota</i>	Queen Anne's lace	perennial forb	non-native	--	assessed	UPL
Apiaceae	<i>Sanicula bipinnatifida</i>	purple sanicle	perennial forb	native	--	--	NL
Apiaceae	<i>Sanicula crassicaulis</i>	Pacific sanicle	perennial forb	native	--	--	NL
Asteraceae	<i>Achillea millefolium</i>	common yarrow	perennial forb	native	--	--	FACU
Asteraceae	<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	coyote brush	evergreen shrub	native	--	--	NL
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	annual forb	non-native	--	moderate	NL
Asteraceae	<i>Centaurea calcitrapa</i>	purple star thistle	annual forb	non-native	--	moderate	NL
Asteraceae	<i>Centaurea melitensis</i>	totalote	annual forb	non-native	--	moderate	NL
Asteraceae	<i>Centaurea solstitialis</i>	yellow star thistle	annual forb	non-native	--	high	NL
Asteraceae	<i>Dittrichia graveolens</i>	stinkwort	annual forb	non-native	--	moderate	NL
Asteraceae	<i>Erigeron bonariensis</i>	flax-leaved horseweed	annual forb	non-native	--	--	FACU
Asteraceae	<i>Hypochaeris radicata</i>	rough cat's-ear	perennial forb	non-native	--	moderate	FACU
Asteraceae	<i>Lactuca serriola</i>	prickly lettuce	annual forb	non-native	--	assessed	FACU
Asteraceae	<i>Leontodon saxatilis</i> ssp. <i>longirostris</i>	hawkbit	annual forb	non-native	--	--	FACU
Asteraceae	<i>Logfia filaginoides</i>	California cottonrose	annual forb	native	--	--	NL
Asteraceae	<i>Logfia gallica</i>	narrowleaf cottonrose	annual forb	non-native	--	--	NL
Asteraceae	<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	annual forb	non-native	--	--	FAC
Asteraceae	<i>Psilocarphus oregonus</i>	Oregon woollyheads	annual forb	native	--	--	OBL
Asteraceae	<i>Senecio vulgaris</i>	old-man-of-spring	annual forb	non-native	--	--	FACU
Asteraceae	<i>Silybum marianum</i>	milk thistle	perennial forb	non-native	--	limited	NL
Asteraceae	<i>Soliva sessilis</i>	field burweed	annual forb	non-native	--	--	FACU
Asteraceae	<i>Sonchus asper</i> ssp. <i>asper</i>	prickly sow thistle	annual forb	non-native	--	assessed	FAC

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Asteraceae	<i>Sonchus oleraceus</i>	common sow thistle	annual forb	non-native	--	--	
Asteraceae	<i>Xanthium spinosum</i>	spiny cocklebur	annual forb	native	--	--	
Asteraceae	<i>Xanthium strumarium</i>	rough cocklebur	annual forb	native	--	--	
Azollaceae	<i>Azolla filiculoides</i>	Pacific mosquitofern	annual fern	native	--	--	
Boraginaceae	<i>Amsinckia menziesii</i>	Menzies' fiddleneck	annual forb	native	--	-- NL FACU	
Brassicaceae	<i>Capsella bursa-pastoris</i>	shepherd's purse	annual forb	non-native	--	--	
Brassicaceae	<i>Cardamine californica</i>	milk maids	perennial forb	native	--	-- FAC	
Brassicaceae	<i>Hirschfeldia incana</i>	short podded mustard	perennial forb	non-native	--	OBL moderate	NL
Brassicaceae	<i>Raphanus sativus</i>	wild radish	perennial forb	non-native	--	NL limited FACU	NL
Brassicaceae	<i>Sinapis arvensis</i>	charlock	annual forb	non-native	--	limited	NL
Caryophyllaceae	<i>Spergularia rubra</i>	red sand spurry	perennial forb	non-native	--	-- NL	
Caryophyllaceae	<i>Stellaria media</i>	common chickweed	annual forb	non-native	--	--	
Convolvulaceae	<i>Convolvulus arvensis</i>	field bindweed	perennial forb	non-native	--	assessed	NL
Crassulaceae	<i>Crassula connata</i>	sand pygmyweed	annual forb	native	--	--	
Cyperaceae	<i>Eleocharis macrostachya</i>	common spikerush	perennial graminoid	native	--	-- FAC FACU	
Euphorbiaceae	<i>Croton setiger</i>	turkey mullein	annual forb	native	--	--	
Fabaceae	<i>Acmispon americanus</i>	American lotus	annual forb	native	--	--	
Fabaceae	<i>Lotus corniculatus</i>	bird's-foot trefoil	perennial forb	non-native	--	FAC assessed OBL	FAC
Fabaceae	<i>Lupinus bicolor</i>	miniature lupine	annual forb	native	--	--	
Fabaceae	<i>Lupinus nanus</i>	sky lupine	annual forb	native	--	-- NL	
Fabaceae	<i>Medicago polymorpha</i>	bur medic	annual forb	non-native	--	NL limited	FACU
Fabaceae	<i>Trifolium hirtum</i>	rose clover	annual forb	non-native	--	moderate	NL
Fabaceae	<i>Trifolium subterraneum</i>	subterranean clover	annual forb	non-native	--	-- NL	
Fabaceae	<i>Vicia sativa</i>	garden vetch	annual forb	non-native	--	-- NL	
Fagaceae	<i>Quercus agrifolia</i>	coast live oak	evergreen tree	native	--	--	
Fagaceae	<i>Quercus douglasii</i>	blue oak	deciduous tree	native	--	--	
Fagaceae	<i>Quercus lobata</i>	valley oak	deciduous tree	native	--	-- NL FACU	

NL

Page B-2

NL
FACU

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Geraniaceae	<i>Erodium botrys</i>	longbeak stork's bill	annual forb	non-native	--	assessed	FACU
Geraniaceae	<i>Erodium brachycarpum</i>	foothill filaree	annual forb	non-native	--	limited	NL
Geraniaceae	<i>Geranium dissectum</i>	cutleaf geranium	annual forb	non-native	--	moderate	NL
Geraniaceae	<i>Geranium molle</i>	woodland geranium	perennial forb	non-native	--	assessed	NL
Geraniaceae	<i>Geranium purpureum</i>	herb robert	perennial forb	non-native	--	--	
Iridaceae	<i>Sisyrinchium bellum</i>	blue-eyed grass	perennial forb	native	--	--	
Juncaceae	<i>Juncus bufonius</i>	toad rush	annual graminoid	native	--	--	
Juncaceae	<i>Juncus tenuis</i>	poverty rush	perennial graminoid	native	--	--	
Lamiaceae	<i>Lamium amplexicaule</i>	henbit deadnettle	annual forb	non-native	--	--NL FACW	
Lamiaceae	<i>Marrubium vulgare</i>	horehound	perennial forb	non-native	--	limited FACW	FACU
Lamiaceae	<i>Mentha pulegium</i>	pennyroyal	perennial forb	non-native	--	moderate FACW	OBL
Lamiaceae	<i>Stachys rigida</i> var. <i>quercetorum</i>	rough hedgenettle	perennial forb	native	--	--	
Lythraceae	<i>Lythrum hyssopifolia</i>	hyssop loosestrife	annual forb	non-native	--	NL moderate	OBL
Malvaceae	<i>Malva nicaeensis</i>	bull mallow	annual forb	non-native	--	--	
Montiaceae	<i>Claytonia parviflora</i>	spring beauty	annual forb	native	--	--FACW	
Moraceae	<i>Ficus carica</i>	common fig	deciduous tree	non-native	--	moderate	FACU
Myrsinaceae	<i>Lysimachia arvensis</i>	scarlet pimpernel	annual forb	non-native	--	--	
Myrtaceae	<i>Eucalyptus globulus</i>	blue gum	evergreen tree	non-native	--	NL moderate FACU	NL
Onagraceae	<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	winecup clarkia	annual forb	native	--	--	
Onagraceae	<i>Epilobium brachycarpum</i>	annual willowherb	annual forb	native	--	--	
Onagraceae	<i>Taraxia ovata</i>	sun cup	perennial forb	native	--	--NL	
Orobanchaceae	<i>Triphysaria eriantha</i> ssp. <i>eriantha</i>	Johnny-tuck	annual forb	native	--	--	
Oxalidaceae	<i>Oxalis pes-caprae</i>	Bermuda buttercup	perennial forb	non-native	--	NL moderate FAC	NL
Papaveraceae	<i>Eschscholzia californica</i>	California poppy	perennial forb	native	--	--	
Plantaginaceae	<i>Kickxia elatine</i>	sharp-leaf cancerwort	perennial forb	non-native	--	--NL	
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	perennial forb	non-native	--	NL limited	FAC
Poaceae	<i>Aira caryophyllea</i>	silver hairgrass	annual graminoid	non-native	--	assessed	FACU

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UPL

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Poaceae	<i>Avena barbata</i>	wild oat	annual graminoid	non-native	--	moderate	NL
Poaceae	<i>Brachypodium distachyon</i>	false brome	perennial graminoid	non-native	--	moderate	NL
Poaceae	<i>Briza minor</i>	little rattlesnake grass	annual graminoid	non-native	--	--	
Poaceae	<i>Bromus diandrus</i>	rip-gut brome	annual graminoid	non-native	--	moderate	NL
Poaceae	<i>Bromus hordeaceus</i>	soft chess	annual graminoid	non-native	--	limited	FACU
Poaceae	<i>Cynodon dactylon</i>	Bermuda grass	perennial graminoid	non-native	--	moderate	FACU
Poaceae	<i>Cynosurus echinatus</i>	dogtail grass	annual graminoid	non-native	--	FAC moderate	NL
Poaceae	<i>Elymus caput-medusae</i>	Medusa head	perennial graminoid	non-native	--	high	NL
Poaceae	<i>Elymus glaucus</i>	blue wildrye	perennial graminoid	native	--	--	
Poaceae	<i>Festuca bromoides</i>	brome fescue	perennial graminoid	non-native	--	--	
Poaceae	<i>Festuca perennis</i>	Italian rye grass	annual graminoid	non-native	--	moderate	FAC
Poaceae	<i>Glyceria declinata</i>	waxy manna grass	perennial graminoid	non-native	--	moderate FACU	FACW
Poaceae	<i>Hordeum brachyantherum</i>	meadow barley	perennial graminoid	native	--	-- FACU	
Poaceae	<i>Hordeum marinum</i>	Mediterranean barley	annual graminoid	non-native	--	moderate	FAC
Poaceae	<i>Hordeum murinum</i>	mouse barley	annual graminoid	non-native	--	moderate	FAC
Poaceae	<i>Hordeum vulgare</i>	common barley	annual graminoid	non-native	--	-- FACW	
Poaceae	<i>Phalaris aquatica</i>	harding grass	perennial graminoid	non-native	--	moderate	FACU
Poaceae	<i>Poa annua</i>	annual bluegrass	annual graminoid	non-native	--	--	
Poaceae	<i>Polypogon monspeliensis</i>	rabbit's-foot grass	annual graminoid	non-native	--	limited	FACW
Poaceae	<i>Stipa pulchra</i>	purple needlegrass	perennial graminoid	native	--	-- NL	
Poaceae	<i>Triticum aestivum</i>	bread wheat	annual graminoid	non-native	--	-- FAC	
Polemoniaceae	<i>Leptosiphon bicolor</i>	true babystars	annual forb	native	--	--	
Polygonaceae	<i>Polygonum aviculare</i>	dooryard knotweed	perennial forb	non-native	--	--	
Polygonaceae	<i>Rumex crispus</i>	curly dock	perennial forb	non-native	--	NL limited	FAC
Polygonaceae	<i>Rumex pulcher</i>	fiddle dock	perennial forb	non-native	--	-- NL	
Ranunculaceae	<i>Ranunculus californicus</i>	California buttercup	perennial forb	native	--	-- UPL	
Ranunculaceae	<i>Ranunculus muricatus</i>	spiny buttercup	perennial forb	non-native	--	-- FAC	

FAC
FACU
FACW

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS ¹	INVASIVE STATUS ²	WETLAND INDICATOR ³
Rosaceae	<i>Rubus armeniacus</i>	Himalayan blackberry	evergreen shrub	non-native	--	high	FAC
Rubiaceae	<i>Galium aparine</i>	common bedstraw	annual forb	native	--	--	
Rubiaceae	<i>Galium parisiense</i>	wall bedstraw	annual forb	non-native	--	--	
Rubiaceae	<i>Sherardia arvensis</i>	blue field madder	annual forb	non-native	--	--	
Salicaceae	<i>Salix lasiandra</i>	Pacific willow	deciduous tree	native	--	--	
Salicaceae	<i>Salix lasiolepis</i>	arroyo willow	deciduous tree	native	--	--	
Sapindaceae	<i>Aesculus californica</i>	California buckeye	deciduous tree	native	--	--	
Saxifragaceae	<i>Lithophragma affine</i>	woodland star	perennial forb	native	--	--	
Themidaceae	<i>Dipterostemon capitatum</i>	blue dicks	perennial forb	native	--	--	
Typhaceae	<i>Typha angustifolia</i>	narrowleaf cattail	perennial forb	non-native	--	--	
Typhaceae	<i>Typha latifolia</i>	common cattail	perennial forb	native	--	--	
Urticaceae	<i>Urtica dioica ssp. gracilis</i>	American stinging nettle	perennial forb	native	--	--	
Urticaceae	<i>Urtica urens</i>	dwarf nettle	annual forb	non-native	--	--	
Violaceae	<i>Viola pedunculata</i>	johnny jump-up	perennial forb	native	--	--	
Vitaceae	<i>Vitis vinifera</i>	wine grape	deciduous vine	non-native	--	--	

All species identified using the *Jepson Manual, 2nd Edition* (Baldwin et al. 2012), *The Jepson Flora Project* (eFlora 2023), and *A Flora of Napa County* (Ruygt 2020); nomenclature follows *The Jepson Flora Project* (eFlora 2023) unless otherwise noted

NL
NL
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Sp.: “species”, intended to indicate that the observer was confident in the identity of the genus but uncertain which species

Cf.: “confer” or “compared with”, intended to indicate a species appeared to the observer to be specific, but was not identified based on diagnostic characters

¹Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2023a)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
LR	Locally Rare
CRPR 1A:	Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B:	Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A:	Plants presumed extirpated in California, but more common elsewhere
CRPR 2B:	Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3:	Plants about which we need more information – a review list
CRPR 4:	Plants of limited distribution – a watch list

²Invasive Status: California Invasive Plant Inventory (Cal-IPC 2006)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

³Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Corps 2018)

OBL:	Almost always a hydrophyte, rarely in uplands
FACW:	Usually a hydrophyte, but occasionally found in uplands
FAC:	Commonly either a hydrophyte or non-hydrophyte
FACU:	Occasionally a hydrophyte, but usually found in uplands
UPL:	Rarely a hydrophyte, almost always in uplands
NL:	Rarely a hydrophyte, almost always in uplands
NI:	No information; not factored during wetland delineation

Table B-2. Wildlife species observed in the Study Area: June 29, 2022 and April 26, 2023

SCIENTIFIC NAME	COMMON NAME
Mammals	
<i>Canus latrans</i>	coyote
<i>Lepus californicus</i>	black-tailed jackrabbit
<i>Odocoileus hemionus columbianus</i>	black-tailed deer
<i>Otospermophilus beecheyi</i>	California ground squirrel
Birds	
<i>Aeronautes saxatalis</i>	white-throated swift
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Anas platyrhynchos</i>	mallard
<i>Aphelocoma californica</i>	California scrub-jay
<i>Baeolophus inornatus</i>	oak titmouse
<i>Branta canadensis</i>	Canada goose
<i>Bubo virginianus</i>	great horned owl
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Buteo lineatus</i>	red-shouldered hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	turkey vulture
<i>Corvus corax</i>	common raven
<i>Elanus leucurus</i>	white-tailed kite
<i>Haemorhous mexicanus</i>	house finch
<i>Icterus bullockii</i>	Bullock's oriole
<i>Junco hyemalis</i>	dark-eyed junco
<i>Melanerpes formicivorus</i>	acorn woodpecker
<i>Meleagris gallopavo</i>	wild turkey
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	northern mockingbird
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Oreothlypis celata</i>	orange-crowned warbler
<i>Picoides pubescens</i>	downy woodpecker
<i>Pipilo maculatus</i>	spotted towhee
<i>Sayornis nigricans</i>	black phoebe
<i>Sialia mexicana</i>	western bluebird
<i>Sitta carolinensis</i>	white-breasted nuthatch

SCIENTIFIC NAME	COMMON NAME
<i>Spinus psaltria</i>	lesser goldfinch
<i>Sturnus vulgaris</i>	European starling
<i>Tachycineta bicolor</i>	tree swallow
<i>Tachycineta thalassina</i>	violet-green swallow
<i>Thryomanes bewickii</i>	Bewick's wren
<i>Zenaida macroura</i>	mourning dove
Reptiles and Amphibians	
<i>Sceloporus occidentalis</i>	western fence lizard

Appendix C

Potential for Special-status Species to Occur in the Study Area

Table C. Potential for Special-status Species to Occur in the Study Area. List compiled from the Napa County Baseline Data Report (NCBDR; Napa County 2005), CDFW BIOS database (CDFW 2023a), USFWS IPaC Report (USFWS 2023b), and CNPS Electronic Inventory (CNPS 2023a) searches. For plants, the Rutherford, Yountville, Capell Valley, Sonoma, Napa, Mt. George, Sears Point, Cuttings Wharf, and Cordelia USGS 7.5' quadrangles were included in the search. For wildlife, the entirety of Napa County was considered.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
PLANTS				
<i>Agrostis hendersonii</i> Henderson's bentgrass	CRPR 3	Valley and foothill grassland, vernal pools; situated in mesic grasslands; wetland indicator: FACW/FACW. Elevation range: 225 – 995 feet. Blooms: April – June.	Moderate Potential. The Study Area contains seasonal wetland habitat that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	CRPR 1B	Cismontane woodland, valley and foothill grassland; on clay substrate, often derived from volcanics or serpentine; serpentine indicator: WI. Elevation range 170 – 985 feet. Blooms: May – June.	Moderate Potential. The Study Area contains rocky woodland and grassland habitat that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	CRPR 1B	Openings in broadleaf upland forest, chaparral, cismontane woodland. Elevation range: 395 – 6560 feet. Blooms: April – July.	Moderate Potential. The Study Area contains rocky woodland habitat that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	CRPR 1B	Cismontane woodland, valley and foothill grassland, coastal bluff scrub; situated on rocky soils. Elevation range: 10 – 1625 feet. Blooms: March – June.	Moderate Potential. The Study Area contains rocky grassland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Antirrhinum virga</i> twig-like snapdragon	CRPR 4	Chaparral, lower montane coniferous forest; located on rocky openings often derived from serpentine; serpentine indicator: SI. Elevation range: 325 – 6550 feet. Blooms: June – July.	No Potential. The Study Area does not contain chaparral or forest habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Arabis modesta</i> modest rockcress	CRPR 4	Chaparral, lower montane coniferous forest; located on steep slopes, cliffs, and shaded canyons underlain by deep soils. Elevation range: 390 – 2600 feet. Blooms: March – July.	No Potential. The Study Area does not contain chaparral or forest habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i> Rincon manzanita	CRPR 1B	Chaparral, cismontane woodland; highly restricted to red rhyolite soils. Elevation range: 245 – 1215 feet. Blooms: February – April.	No Potential. The Study Area does not contain chaparral habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Astragalus claranus</i> Clara Hunt's milk-vetch	FE; ST; CRPR 1B	Cismontane woodland, valley and foothill grassland, chaparral; on open grassy hillsides, especially exposed shoulders with thin, volcanic or serpentine clay soils; serpentine indicator: SI. Elevation range: 245 – 900 feet. Blooms: March – May.	Moderate Potential. The Study Area contains rocky woodland that may support this species; documented occurrences from central Mayacama Mountains.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Astragalus clevelandii</i> Cleveland's milk-vetch	CRPR 4	Chaparral, cismontane woodland, riparian forest; located on serpentine seeps; serpentine indicator: SE. Elevation range: 650 – 4875 feet. Blooms: June – September.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	CRPR 1B	Playas, vernal pools, valley and foothill grassland; located in vernal pools and similar wetlands/mesic areas on alkaline substrate. Elevation range: 0 – 195 feet. Blooms: March – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	CRPR 1B	Valley and foothill grassland, cismontane woodland; situated on rocky substrates, typically derived from metavolcanics, sometimes on serpentine substrate; serpentine indicator: SI. Elevation range: 295 – 3100 feet. Blooms: March – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE, SE, CRPR 1B	Vernal pools, vernal swales, and mesic areas in valley grassland; highly restricted to the Santa Rosa Plain and Valley of the Moon. Elevation range: 35 – 360 feet. Blooms: March – April.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Brodiaea leptandra</i> narrow-anthered brodiaea	CRPR 1B	Broadleaf upland forest, chaparral, lower montane coniferous forest; situated on gravelly soils derived from volcanics, particularly rhyolitic tuff, sometimes serpentine; serpentine indicator: WI. Elevation range: 360 – 3000 feet. Blooms: May – July.	No Potential. The Study Area does not contain chaparral or forest habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Calandrinia breweri</i> Brewer's Calandrinia	CRPR 4	Chaparral, coastal scrub; located on sandy or loamy substrate in areas often recently disturbed or burned. Elevation range: 30 – 3965 feet. Blooms: March – June.	No Potential. The Study Area does not contain chaparral or coastal scrub habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Carex lyngbyei</i> Lyngbye's sedge	CRPR 2B	Marshes and swamps; located in brackish or freshwater. Elevation range: 0 - 30 feet. Blooms April - August	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Castilleja affinis</i> ssp. <i>neglecta</i> Tiburon paintbrush	FE; ST; CRPR 1B	Valley and foothill grassland; located in grassy, open areas and rock outcrops underlain by serpentine substrate; serpentine indicator: SE. Elevation range: 195 – 1300 feet. Blooms: April – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Castilleja ambigua</i> var. <i>ambigua</i> Johnny-nip	CRPR 4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Elevation range: 0 – 1415 feet. Blooms: March – August.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Castilleja ambigua</i> var. <i>meadii</i> Mead's owl's-clover	CRPR 1B	Meadows and seeps, vernal pools; located in mesic areas or wetlands underlain by gravelly clay soils derived from volcanics. Elevation range: 1460 – 1545 feet. Blooms: April – May.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	CRPR 1B	Closed-cone coniferous forest, chaparral, cismontane woodland; known from volcanic and serpentine substrate; typically situated on dry shrubby slopes; serpentine indicator: WI/IN. Elevation range: 245 – 3495 feet. Blooms: February – April.	No Potential. The Study Area does not contain chaparral habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Ceanothus divergens</i> Calistoga ceanothus	CRPR 1B	Chaparral, cismontane woodland; on rocky, serpentine sites; serpentine indicator: WI. Elevation range: 560 – 3115 feet. Blooms: February – March.	No Potential. The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Ceanothus purpureus</i> holly-leaved ceanothus	CRPR 1B	Chaparral, cismontane woodland; located on rocky, volcanic slopes. Elevation range: 395 – 3000 feet. Blooms: February – June.	No Potential. The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Ceanothus sonomensis</i> Sonoma ceanothus	CRPR 1B	Chaparral; located on sandy serpentine or volcanic substrates; serpentine indicator: WI/IN. Elevation range: 705 – 2625 feet. Blooms: February – April.	No Potential. The Study Area does not contain chaparral habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	CRPR 1B	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland; in vernal mesic sites, often with alkali substrate. Elevation range: 5 – 1380 feet. Blooms: May – November.	Unlikely. Although the Study Area contains seasonal wetlands and grasslands, this species is known from highly alkali areas.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Centromadia parryi</i> ssp. <i>rudis</i> Parry's rough tarplant	CRPR 4	Valley and foothill grassland, vernal pools; situated on vernal mesic sites underlain by alkaline soils, frequently seeps, swales, and roadsides. Elevation range: 0 – 330 feet. Blooms: May – October.	Unlikely. Although the Study Area contains seasonal wetlands and grasslands, this species is known from highly alkali areas.	Presumed Absent. No further actions are recommended for this species.
<i>Chloropyron molle</i> ssp. <i>molle</i> soft bird's-beak	FE, SR, CRPR 1B	Coastal brackish or salt marshes; located in low-growing saltgrass and pickleweed mats. Elevation range: 0 – 10 feet. Blooms: June – November.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Clarkia breweri</i> Brewer's clarkia	CRPR 4	Chaparral, cismontane woodland, coastal scrub; frequently on serpentine substrate; serpentine indicator: BE/SI. Elevation range: 695 – 3625 feet. Blooms: April – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Clarkia gracilis</i> ssp. <i>tracyi</i> Tracy's clarkia	CRPR 4	Chaparral; located in openings and situated on substrates often derived from serpentine; serpentine indicator: BE. Elevation range: 210 – 2115 feet. Blooms: April – July.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Collomia diversifolia</i> serpentine collomia	CRPR 4	Chaparral, cismontane woodland; situated on rocky to gravelly serpentine substrates; serpentine indicator: SE. Elevation range: 975 – 1950 feet. Blooms: May – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Downingia pusilla</i> dwarf downingia	CRPR 2B	Valley and foothill grassland, vernal pools; located in mesic grassy sites, pool and lake margins. Elevation range: 3 – 1450 feet. Blooms: March – May.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Eleocharis parvula</i> small spikerush	CRPR 4	Marshes and swamps. Elevation range: 5 – 9815 feet. Blooms: sometimes April, June – August, sometimes September.	No Potential. The Study Area does not contain marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Erigeron biolettii</i> streamside daisy	CRPR 3	Broadleaf upland forest, cismontane woodland, North Coast coniferous forest; on rocky, mesic. Elevation range: 95 – 3610 feet. Blooms: June – October.	Moderate Potential. The Study Area contains rocky woodland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Erigeron greenei</i> Greene's narrow-leaved daisy	CRPR 1B	Chaparral; located on volcanic or serpentine substrate. Elevation range: 260 – 3270 feet. Blooms: May – September.	No Potential. The Study Area does not contain chaparral habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Eryngium jepsonii</i> Jepson's coyote thistle	CRPR 1B	Valley and foothill grassland, vernal pools; situated on clay substrate that is vernaly saturated. Elevation range: 10 – 975 feet. Blooms: April – August.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Erythronium helenae</i> St. Helena fawn lily	CRPR 4	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; located on volcanic or serpentine substrate; serpentine indicator: BE. Elevation range: 1135 – 3965 feet. Blooms: March – May.	Unlikely. The woodland and grassland types associated with this species are not present in the Study Area.	Presumed Absent. No further actions are recommended for this species.
<i>Extriplex joaquiniana</i> San Joaquin spearscale	CRPR 1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland; located on alkaline substrate. Elevation range: 0 – 2715 feet. Blooms: April – October.	Unlikely. Although the Study Area contains seasonal wetlands and grasslands, this species is known from highly alkali areas.	Presumed Absent. No further actions are recommended for this species.
<i>Harmonia nutans</i> nodding harmonia	CRPR 4	Chaparral, cismontane woodland; located on rocky to gravelly substrates derived from volcanics. Elevation range: 240 – 3170 feet. Blooms: March – May.	Moderate Potential. The Study Area contains rocky grassland and woodland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Helianthella castanea</i> Diablo helianthella	CRPR 1B	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Elevation range: 180 – 3900 feet. Blooms: March – June	Moderate Potential. The Study Area contains rocky grassland and woodland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> hayfield tarplant	CRPR 1B	Coastal scrub, valley and foothill grassland; serpentine indicator: WI/IN. Elevation range: 65 – 1840 feet. Blooms: April – October.	Moderate Potential. The Study Area contains grassland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Hesperolinon bicarpellatum</i> Two-carpellate western flax	CRPR 1B	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 195 – 3270 feet. Blooms: May – July.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Hesperolinon breweri</i> Brewer's western flax	CRPR 1B	Chaparral, cismontane woodland, valley and foothill grassland; typically located in serpentine grassland and serpentine chaparral underlain by rocky substrates; serpentine indicator: SI. Elevation range: 95 – 2925 feet. Blooms: May – July.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Hesperolinon sharsmithiae</i> Sharsmith's western flax	CRPR 1B	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 875 – 975 feet. Blooms: May – July.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Horkelia tenuiloba</i> thin-lobed horkelia	CRPR 1B	Broadleaf upland forest, coastal scrub, valley and foothill grassland, chaparral; in mesic openings, on sandy substrate. Elevation range: 165 – 1640 feet. Blooms: May – July.	No Potential. The Study Area does not contain acidic sandy substrate to support this species.	Not Present. No further actions are recommended for this species.
<i>Iris longipetala</i> coast iris	CRPR 4	Coastal prairie, lower montane coniferous forest, meadows and seeps; located on mesic sites. Elevation range: 0 – 1950 feet. Blooms: March – May.	Unlikely. This species is known from cooler, mesic coastal grasslands.	Presumed Absent. No further actions are recommended for this species.
<i>Isocoma arguta</i> Carquinez goldenbush	CRPR 1B	Valley and foothill grassland; located on alkaline soils. Elevation range: 0 – 60 feet. Blooms: August – December.	Unlikely. Although the Study Area contains grasslands, this species is known from highly alkali areas.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE, CRPR 1B	Valley and foothill grassland, vernal pools, cismontane woodland; located in pools, swales, and depressions in mesic grassy sites underlain by alkaline substrate. Elevation range: 0 – 1530 feet. Blooms: March – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	CRPR 1B	Freshwater and brackish marshes; typically located near or on slough margins, closely associated with cattail, tules, bulrushes, Baltic rush, California rose, and Suisun Marsh aster; known widely throughout Suisun Bay and Delta regions. Elevation range: 0 – 15 feet. Blooms: May – July, sometimes September.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Legenere limosa</i> legenere	CRPR 1B	Vernal pools; typically located in the deepest portions of pools. Elevation range: 3 – 2860 feet. Blooms: April – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Leptosiphon aureus</i> bristly leptosiphon	CRPR 4, LR	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; often located on shallow, rocky substrate in foothill positions. Elevation range: 175 – 4875 feet. Blooms: April – July.	Moderate Potential. The Study Area contains rocky grassland that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	CRPR 1B	Chaparral, cismontane woodland; on open to partially shaded grassy slopes on volcanic or the periphery of serpentine substrate. Elevation range: 330 – 1640 feet. Blooms: April – May.	No Potential. The Study Area does not contain chaparral or serpentine woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Leptosiphon latisectus</i> broad-lobed leptosiphon	CRPR 4	Broadleaf upland forest, cismontane woodland; frequently situated on serpentine substrate; serpentine indicator: WI. Elevation range: 550 – 4875 feet. Blooms: April – June.	Unlikely. The Study Area does not contain woodland types associated with this species.	Presumed Absent. No further actions are recommended for this species.
<i>Lessingia hololeuca</i> woolly-headed lessingia	CRPR 3, LR	Broadleaf upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland; typically on clay, serpentine substrate; serpentine indicator: SI. Elevation range: 3 – 2885 feet. Blooms: April – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Lilaeopsis masonii</i> Mason's Lilaeopsis	SR, CRPR 1B	Freshwater and brackish coastal marshes, riparian scrub; located on channel banks in the splash zone on bare mud substrate. Elevation range: 0 – 35 feet. Blooms: April – November.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Lilium rubescens</i> redwood lily	CRPR 4, LR	Broadleaf upland forest, chaparral, lower montane coniferous forest, upper montane coniferous forest, North Coast coniferous forest; often located on serpentine substrates, and along roadcuts; serpentine indicator: WI. Elevation range: 95 – 6210 feet. Blooms: April – September.	No Potential. The Study Area does not contain chaparral or forest habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	FE, SE, CRPR 1B	Mesic meadows, valley and foothill grassland, vernal pools; located in swales, wet meadows, depressions, and pools in the oak savanna of the Santa Rosa Plain on heavy adobe clay substrate. Elevation range: 3 – 2885 feet. Blooms: April – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Lomatium repostum</i> Napa Lomatium	CRPR 1B	Chaparral, cismontane woodland; located on serpentine or volcanic substrates; serpentine indicator: SI. Elevation range: 290 – 2700 feet. Blooms: March – June.	No Potential. The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Lupinus sericatus</i> Cobb Mountain lupine	CRPR 1B	Broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest; typically located in stands of knobcone pine-oak woodland, on open wooded slopes in gravelly substrate typically derived from volcanics, sometimes serpentine. Elevation range: 890 – 4960 feet. Blooms: March – June.	Unlikely. The Study Area does not contain woodland types associated with this species.	Presumed Absent. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	CRPR 3	Broadleaf upland forest, chaparral, cismontane woodland, valley and foothill grassland; typically on thin, rocky soils; serpentine indicator: WI. Elevation range: 145 – 2710 feet. Blooms: March – May.	Moderate Potential. The Study Area contains areas of thin, rocky soils and low biomass that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Monardella viridis</i> green monardella	CRPR 4	Broadleaf upland forest, chaparral, cismontane woodland; situated on serpentine or volcanic soils; serpentine indicator: BE/SI. Elevation range: 325 – 3285 feet. Blooms: June – September.	No Potential. The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> few-flowered navarretia	FE, ST, CRPR 1B	Vernal pools; located on volcanic ash flow and volcanic substrate pools. Elevation range: 1300 – 2780 feet. Blooms: May – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Penstemon newberryi</i> var. <i>sonomensis</i> Sonoma beardtongue	CRPR 1B	Chaparral; crevices in rock outcrops and talus slopes on ridgelines and mountain peaks. Elevation range: 2295 – 4495 feet. Blooms: April – August.	No Potential. The Study Area does not contain chaparral or large rock outcrops to support this species.	Not Present. No further actions are recommended for this species.
<i>Polygonum marinense</i> Marin knotweed	CRPR 3	Salt and brackish coastal marshes. Elevation range: 0 – 35 feet. Blooms: sometimes April, May – August, sometimes October.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Ranunculus lobbii</i> Lobb's buttercup	CRPR 4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools; located in mesic, vernal wet areas. Elevation range: 45 – 1530 feet. Blooms: February – May.	High Potential. The Study Area contains shallow edges of reservoirs that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Rhynchospora californica</i> California beaked-rush	CRPR 1B	Bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps. Elevation range: 145 – 3315 feet. Blooms: May – July.	Unlikely. The Study Area does not contain perennial wetland (freshwater marsh) habitat to support this species.	Presumed Absent. No further actions are recommended for this species.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	CRPR 1B	Marshes and swamps; located in assorted shallow freshwater habitats including canals and perennial drainage ditches. Elevation range: 0 – 2115 feet. Blooms: May – October, sometimes November.	High Potential. The Study Area contains shallow edges of reservoirs that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Sidalcea hickmanii</i> ssp. <i>napensis</i> Napa checkerbloom	CRPR 1B	Chaparral; located on rhyolitic substrates. Elevation range: 1345 – 1985 feet. Blooms: April – June.	No Potential. The Study Area does not contain chaparral habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Sidalcea keckii</i> Keck's checkerbloom	FE, CRPR 1B	Cismontane woodland, valley and foothill grassland; located in grassy areas in blue oak woodland underlain by serpentine substrate; serpentine indicator: SI. Elevation range: 240 – 2115 feet. Blooms: April – June.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Streptanthus hesperidis</i> green jewelflower	CRPR 1B	Chaparral, cismontane woodland; located in openings in brushy/wooded sites on rocky serpentine substrate; serpentine indicator: SE. Elevation range: 420 – 2470 feet. Blooms: May – July.	No Potential. The Study Area does not contain serpentine habitats to support this species.	Not Present. No further actions are recommended for this species.
<i>Symphyotrichum lentum</i> Suisun Marsh aster	CRPR 1B	Freshwater and brackish marshes and swamps; typically located on slough margins and edges, closely associated with cattail, tules, bulrushes, California rose, and Delta Tule pea. Elevation range: 0 – 10 feet. Blooms: May – November.	No Potential. The Study Area does not contain coastal marsh habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Trichostema ruygtii</i> Napa bluecurls	CRPR 1B, LR	Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest; located in open, sunny locations, and dried vernal pools. Elevation range: 95 – 2210 feet. Blooms: June – October.	No Potential. The Study Area does not contain volcanic ash soils to support this species.	Not Present. No further actions are recommended for this species.
<i>Trifolium amoenum</i> showy rancheria clover	FE, CRPR 1B	Valley and foothill grassland, coastal bluff scrub, swales, open sunny sites, sometimes on serpentine; serpentine indicator: WI/IN. Elevation range: 15 – 1365 feet. Blooms: April – June.	Moderate Potential. The Study Area contains grassland habitat that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Trifolium hydrophilum</i> saline clover	CRPR 1B	Marshes and swamps, mesic portions of alkali vernal pools; mesic, alkali valley and foothill grassland. Elevation range: 0 – 985 feet. Blooms: April – June.	Moderate Potential. The Study Area contains seasonal wetlands that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.
<i>Triteleia lugens</i> dark-mouthed triteleia	CRPR 4, LR	Broadleaf upland forest, chaparral, lower montane coniferous forest, coastal scrub. Elevation range: 325 – 3250 feet. Blooms: April – June.	No Potential. The Study Area does not contain chaparral or forest habitat to support this species.	Not Present. No further actions are recommended for this species.
<i>Viburnum ellipticum</i> oval-leaved viburnum	CRPR 2B	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation range: 705 – 4595 feet. Blooms: May – June.	Moderate Potential. The Study Area contains woodland habitat that may support this species.	Not Observed. This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
WILDLIFE				
Mammals				
<i>Antrozous pallidus</i> pallid bat	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Moderate Potential. Woodland and forest within the Study Area provides trees suitable for roosting; there are CNDDDB occurrences within 5 miles (CDFW 2021a). Targeted bat assessment (i.e., close inspection of trees) was not performed.	Presence Unknown. No tree removal is scheduled and thus no project-related impacts anticipated. See Section 6.2.2.
<i>Bassariscus astutus</i> ringtail (ringtail cat)	SFP	Widely distributed throughout much of California. Found in a variety of habitats including riparian areas, semi-arid country, deserts, chaparral, oak woodlands, pinyon pine woodlands, juniper woodlands and montane conifer forests usually under 4,600 ft. elevation. Typically uses cliffs or large trees for shelter.	Unlikely. The Study Area lacks cliffs and large tree cavities/hollows typical of dens for this species; no known occurrences in the vicinity.	Presumed Absent. No further recommendations for this species.
<i>Corynorhinus townsendii</i> <i>townsendii</i> Townsend's western big-eared bat	SSC, WBWG High	Humid coastal regions of northern and central California. Roost in limestone caves, lava tubes, mines, buildings etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to disturbance	Unlikely. Buildings within the Study Area are occupied or otherwise maintained, reducing roost potential.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Eumops perotis californicus</i> western mastiff bat	SSC, WBWG High	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	Unlikely. The Study Area lacks large rock structures that are suitable for roosting. There are no CNDDDB occurrences of this species in Napa County (CDFW 2023a).	Presumed Absent. No further recommendations for this species.
<i>Lasiurus blossevillii</i> western red bat	SSC, WBWG High	Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Associated with riparian broad-leaved tree species including cottonwoods, sycamores, alders, and maples. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas.	Unlikely. The Study Area lacks large, broadleaved trees of the type typically used for roosting (maples, sycamores, etc.).	Presumed Absent. No further recommendations for this species.
<i>Myotis thysanodes</i> fringed myotis	WBWG High	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Building, mines, and large trees and snags are important day and night roosts.	Moderate Potential. Oak woodland within the Study Area provides trees suitable for roosting. Targeted bat assessment (i.e., close inspection of trees) was not performed.	Presence Unknown. No tree removal is scheduled and thus no project-related impacts anticipated. See Section 6.2.2.
<i>Myotis volans</i> long-legged myotis	WBWG High	Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices, buildings, mines, and caves are important day roosts.	Unlikely. The Study Area does not contain stands of coniferous forest.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Reithrodontomys raviventris</i> salt marsh harvest mouse	FE, SE, SFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for dryland refugia during high tides.	No Potential. The Study Area contains no tidal or brackish marsh and is outside of this species' Napa County range.	Not Present. No further recommendations for this species.
<i>Sorex ornatus sinuosus</i> Suisun shrew	SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying vegetation cover, driftwood, and other litter above the mean high tide line for nesting and foraging.	No Potential. The Study Area contains no tidal or brackish marsh and is outside of this species' Napa County range.	Not Present. No further recommendations for this species.
<i>Taxidea taxus</i> American badger	SSC	Most abundant in drier open stages of most shrub, woodland, and herbaceous vegetation types. Requires friable soils and open, uncultivated ground. Preys largely on burrowing rodents.	Moderate Potential. The Study Area contains open woodland and grassland with some suitable habitat elements. There is a CNDDDB occurrence approximately 0.9 mile to the south, though it dates from 1911 (CDFW 2023a). Large burrows characteristic of this species were looked for and not observed during the site visits.	Presence Unknown. A pre-construction burrow/den survey should be performed in focal areas prior to ground disturbance; see Section 6.2.2.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	SC (E), SSC	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	Unlikely. Ponds with the Study Area feature only limited emergent vegetation that would be suitable for nesting. No indication of presence observed during site visits (timed during two consecutive breeding seasons).	Presumed Absent. No further recommendations for this species.
<i>Ammodramus savannarum</i> grasshopper sparrow	SSC, LR	Summer resident. Breeds in open grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	Unlikely. The Study Area lacks expanses of suitable grassland habitat.	Presumed Absent. No further recommendations for this species.
<i>Aquila chrysaetos</i> golden eagle	BGEPA, SFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	Unlikely. The Study Area does not provide large cliffs and lacks typical nest trees. No indication of presence observed during site visits. May forage in the vicinity.	Presumed Absent. No further recommendations for this species.
<i>Ardea alba</i> great egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially, usually in trees, occasionally on the ground or elevated platforms. Breeding sites usually in proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	Moderate Potential (nesting). The Study Area's eastern pond (reservoir) provides perennial foraging habitat and adjacent trees for nesting. However, no indication of nesting or even presence observed during site visits (timed during two consecutive breeding seasons).	Not Observed. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Ardea herodias</i> great blue heron	LR (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially in tall trees and cliffs, also sequestered terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	Moderate Potential (nesting). The Study Area's eastern pond (reservoir) provides perennial foraging habitat and adjacent trees for nesting. However, no indication of nesting or even presence observed during site visits (timed during two consecutive breeding seasons).	Not Observed. No further recommendations for this species.
<i>Asio flammeus</i> short-eared owl	SSC	Occurs year-round, but primarily as a winter visitor; breeding very restricted in most of California. Found in open, treeless areas (e.g., marshes, grasslands) with elevated sites for foraging perches and dense herbaceous vegetation for roosting and nesting. Preys mostly on small mammals, particularly voles.	Unlikely. Known distribution (wintering) is restricted to the Napa baylands; breeding in the County has never been documented (Smith 2003).	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Asio otus</i> long-eared owl	SSC	Occurs year-round in California. Nests in trees in a variety of woodland habitats, including oak and riparian, as well as tree groves. Requires adjacent open land with rodents for foraging, and the presence of old nests of larger birds (hawks, crows, magpies) for breeding.	Unlikely. Rare in Napa County, with the nearest observations located on the Napa Valley floor (eBird 2023a).	Presumed Absent. No further recommendations for this species.
<i>Athene cunicularia</i> burrowing owl	SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	Unlikely. Breeding and wintering distribution within Napa County are restricted to the vicinity of Lake Berryessa and southern baylands (Smith 2003, CDFW 2021a).	Presumed Absent. No further recommendations for this species.
<i>Buteo swainsoni</i> Swainson's hawk	ST	Summer resident in Central Valley and some coastal valleys. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as favored agricultural fields, especially alfalfa. Preys on arthropods year-round as well as vertebrates during the breeding season.	Moderate Potential. Napa County's breeding population is primarily restricted to baylands; the nearest CNDDDB nesting occurrence is approximately 1.6 miles to the southwest (CDFW 2023a). The Study Area provides trees for nesting and open areas for foraging.	Presence Unknown. Initial ground disturbance should occur outside of nesting season, or conduct dedicated pre-construction surveys and avoid any active nests found. See Section 6.2.2.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Charadrius alexandrinus nivosus</i> western snowy plover	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	No Potential. The Study Area does not contain beaches or other suitable barren habitat near water.	Not Present. No further recommendations for this species.
<i>Circus cyaneus</i> northern harrier	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and some agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	Unlikely. Grassland patches within the Study Area are relatively small in contiguous area, and the surroundings (e.g., vineyards) are subject to regular disturbance.	Presumed Absent. No further recommendations for this species.
<i>Contopus cooperi</i> olive-sided flycatcher	SSC	Summer resident. Typical breeding habitat is montane coniferous forests. At lower elevations, also occurs in wooded canyons and mixed forests and woodlands. Often associated with forest edges. Arboreal nest sites located well off the ground.	Unlikely. Woodland within the Study Area features a relatively sparse canopy, with conifers absent.	Presumed Absent. No further recommendations for this species.
<i>Coturnicops noveboracensis</i> yellow rail	SSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	No Potential. The Study Area does not provide any suitable marsh/wetland habitat.	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Cypseloides niger</i> black swift	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas. No modern nesting records in Napa County.	No Potential. The Study Area does not contain waterfalls; there are no modern breeding records for Napa County (Smith 2003, Shuford and Gardali 2008).	Not Present. No further recommendations for this species.
<i>Egretta thula</i> snowy egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees, at times in sequestered beds of dense emergent vegetation (e.g., tules). Rookery sites usually situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	Moderate Potential (nesting). The Study Area's eastern pond (reservoir) provides perennial foraging habitat and adjacent trees for nesting. However, no indication of nesting or even presence observed during site visits (timed during two consecutive breeding seasons).	Not Observed. No further recommendations for this species.
<i>Elanus leucurus</i> white-tailed kite	SFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	High Potential. Woodland areas within the Study Area provides suitable nesting trees, with adjacent open areas for foraging.	Present. One white-tailed kite was observed foraging in June 2022. Initial ground disturbance should occur outside of nesting season, or conduct a pre-construction survey and avoid any active nests found. See Section 6.2.2.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Falco peregrinus anatum</i> American peregrine falcon	SE, SFP	Year-round resident and winter visitor. Occurs near water, including coastal areas, wetlands, lakes and rivers. Usually nests on sheltered cliffs or tall man-made structures. Preys primarily on waterbirds.	Unlikely. The Study Area does not contain large cliffs or suitable man-made structures for nesting.	Presumed Absent. No further recommendations for this species.
<i>Geothlypis trichas sinuosa</i> San Francisco (saltmarsh) common yellowthroat	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	No Potential. No marsh vegetation is present within the Study Area, and this species' Napa County distribution is restricted to tidal and brackish baylands (Shuford and Gardali 2008).	Not Present. No further recommendations for this species.
<i>Haliaeetus leucocephalus</i> bald eagle	BGEPA, SE, SFP	Occurs year-round in California, but primarily a winter visitor; breeding population is growing. Nests in large trees in the vicinity of larger lakes, reservoirs, and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	Unlikely. On-site reservoirs are small, and no typical potential nest trees (large conifers) are present within or adjacent to the Study Area. As per Smith (2003) and CDFW (2023a), nesting within Napa County is known only from the immediate vicinity of Lake Berryessa.	Presumed Absent. No further recommendations for this species.
<i>Icteria virens</i> yellow-breasted chat	SSC, LR	Summer resident, occurring in riparian areas with an open canopy, very dense understory, and trees for song perches. Nests in thickets of willow (<i>Salix</i> spp.), blackberry (<i>Rubus</i> spp.), and wild grape (<i>Vitis californicus</i>).	Unlikely. The Study Area does not contain stands of dense riparian understory favored by this species for nesting.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Lanius ludovicianus</i> loggerhead shrike	SSC, LR	Year-round resident in open woodland, grasslands, savannah, and scrub. Prefers areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed in densely-foliaged shrubs or trees.	Moderate Potential. The Study Area provides some suitable habitat elements, including open areas with trees/shrubbery and fence posts; there are eBird observations in the vicinity (eBird 2023). Not observed during site visits.	Presence Unknown. Initial ground disturbance should occur outside of nesting season, or conduct pre-construction surveys and avoid any active nests found. See Section 6.2.2.
<i>Laterallus jamaicensis coturniculus</i> California black rail	ST, SFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	No Potential. The Study Area does not contain tidal or brackish marsh. Within Napa County, this species is restricted to baylands and the lower Napa River.	Not Present. No further recommendations for this species.
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	SSC	Year-round resident of tidal marshes along the north side of San Francisco and San Pablo Bays. Typical habitat is dominated by pickleweed, with gumplant and other shrubs present in the upper zone for nesting. May forage in areas adjacent to marshes.	No Potential. The Study Area contains no tidal or brackish marsh and is outside of this species' limited Napa County range (Shuford and Gardali 2008).	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Nycticorax nycticorax</i> black-crowned night heron	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees but also in patches of emergent vegetation. Rookery sites are often on islands and usually located adjacent to foraging areas: margins of lakes and bays.	Moderate Potential (nesting). The Study Area's eastern pond (reservoir) provides perennial foraging habitat and adjacent trees for nesting. However, no indication of nesting or even presence observed during site visits (timed during two consecutive breeding seasons).	Not Observed. No further recommendations for this species.
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	SSC	Year-round resident associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally influenced habitats and adjacent areas, including grasslands. Also uses drier, more upland coastal grasslands. Nests near the ground in taller vegetation, including along levees and canals.	Moderate Potential. Areas of grassland within the Study Area are suitable for nesting by this species. Not observed during site visits.	Presence Unknown. Initial ground disturbance should occur outside of nesting season, or conduct a pre-construction survey and avoid any active nests found. See Section 6.2.2.
<i>Progne subis</i> purple martin	SSC, LR	Summer resident. Inhabits woodlands and low-elevation coniferous forests. Nests in old woodpecker cavities and man-made structures (bridges, utility towers). Nest is often located in tall, isolated tree or snag.	Unlikely. The Study Area does not contain coniferous forest and lacks typical nesting habitat.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Rallus obsoletus obsoletus</i> California Ridgway's (clapper) rail	FE, SE, SFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on mollusks and crustaceans.	No Potential. The Study Area does not contain tidal or brackish marsh. Within Napa County, this species is restricted to baylands and the lower Napa River system.	Not Present. No further recommendations for this species.
<i>Riparia riparia</i> bank swallow	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	No Potential. The Study Area does not contain cliffs or cuts with fine-textured soils or any other potentially suitable nesting substrate. Not known to nest in Napa County as per Smith (2003).	Not Present. No further recommendations for this species.
<i>Setophaga petechia brewsteri</i> (Brewster's) yellow warbler	SSC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting is variable, but dense willow growth is typical. Occurs widely on migration.	Unlikely (breeding). The Study does not contain stream courses with dense willow or similar riparian cover. May occur on migration.	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Spizella atrogularis</i> black-chinned sparrow	LR	Summer resident. Typically occurs on arid, rocky slopes with brushy vegetation, e.g. mixed chaparral, and sagebrush.	No Potential. The Study Area does not contain expansive chaparral or similar brushy habitats.	Not Present. No further recommendations for this species.
<i>Strix occidentalis caurina</i> northern spotted owl	FT, ST, SSC	Year-round resident in dense, structurally complex forests, primarily those with stands of mature conifers. In Napa County, uses both coniferous and mixed (coniferous-hardwood) forests. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals.	No Potential. The Study Area does not contain coniferous or mixed forest.	Not Present. No further recommendations for this species.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	SSC, LR	Summer resident. Breeds colonially in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or ponds. Requires abundant large insects such as dragonflies; nesting is timed for maximum emergence of insect prey.	Unlikely. Ponds with the Study Area feature only limited emergent vegetation that would be suitable for nesting. No indication of presence observed during site visits (timed during two consecutive breeding seasons).	Presumed Absent. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Reptiles and Amphibians				
<i>Dicamptodon ensatus</i> California giant salamander	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	No Potential. The Study Area lacks streams and is outside of this species' Napa County range.	Not Present. No further recommendations for this species.
<i>Emys marmorata</i> western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	Moderate Potential. The Study Area's perennial reservoirs (ponds) provide suitable aquatic habitat (including basking substrates); the small reservoir in the northwestern portion of the site also features adjacent grassland that is suitable for nesting.	Presence Unknown. No turtles observed during site visits, but these results are not considered conclusive. Pre-construction survey recommended; see Section 6.2.2.
<i>Rana boylei</i> foothill yellow-legged frog	SSC	Found in or near rocky streams in a variety of habitats; highly aquatic. Prefers partially-sunlit, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on invertebrates (aquatic and terrestrial).	No Potential. The Study Area lacks perennial or near-perennial rocky streams.	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Rana draytonii</i> California red-legged frog	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense emergent and/or overhanging riparian vegetation. Favors perennial to intermittent ponds, marshes, and stream pools. Requires 11 to 20 weeks of continuous inundation for larval development. Disperses through upland habitats during and after rains.	Unlikely. The Study Area contains perennial reservoirs (ponds) with favorable habitat elements, particularly the northwestern pond. However, the nearest CNDDDB occurrences are greater than 6.3 miles away (to the southeast; CDFW 2023a), and the site (including adjacent properties to the south) are effectively surrounded by vineyard development, rendering movement in/out of the Study Area unlikely. No frogs observed within or along shorelines of ponds during site visits.	Presumed Absent. No further recommendations for this species.
Fishes				
<i>Acipenser medirostris</i> green sturgeon	FT, SSC	Spawns in the Sacramento River and Klamath Rivers, at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	No Potential. The Study Area does not contain suitable anadromous or estuarine waters.	Not Present. No further recommendations for this species.
<i>Eucyclogobius newberryi</i> tidewater goby	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches. Requires fairly still but not stagnant water and high oxygen levels.	No Potential. The Study Area does not contain brackish or ore estuarine waters; believed to be extirpated from San Francisco Bay.	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Hypomesus transpacificus</i> Delta smelt	FT, ST	Endemic to the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	No Potential. The Study Area does not contain estuarine waters.	Not Present. No further recommendations for this species.
<i>Lampetra ayresi</i> river lamprey	SSC	Lower Sacramento River, San Joaquin River and Russian River. May occur in coastal streams north of San Francisco Bay. Adults need clean, gravelly riffles, Ammocoetes need sandy backwaters or stream edges, good water quality and temps < 25 degrees C.	No Potential. The Study Area does not contain suitable anadromous or estuarine waters.	Not Present. No further recommendations for this species.
<i>Mylopharodon conocephalus</i> hardhead	SSC	Known from mid-elevation streams in the Sacramento, San Joaquin, Napa River, and Russian River drainages. Prefer clear, deep pools with sand-gravel-boulder bottoms and slow water velocity.	No Potential. The Study Area does not contain suitable anadromous or estuarine waters.	Not Present. No further recommendations for this species.
<i>Oncorhynchus mykiss irideus</i> steelhead - central CA coast DPS	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	No Potential. The Study Area does not contain suitable anadromous or estuarine waters; the on-site ephemeral stream lacks hydrology to support migration or spawning.	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Oncorhynchus tshawytscha</i> Chinook salmon - California coastal ESU	FT	This ESU includes all naturally spawned populations of Chinook salmon from rivers and streams south of the Klamath River (exclusive) to the Russian River (inclusive). Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 degrees C lethal to adults.	No Potential. The Study Area does not contain suitable anadromous or estuarine waters and is outside of the relevant watershed.	Not Present. No further recommendations for this species.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	SSC	Formerly endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento Delta, Suisun Bay and associated marshes. Occurs in slow-moving river sections and dead-end sloughs. Requires flooded vegetation for spawning and foraging for young. A freshwater species, but tolerant of moderate salinity (10-18 parts per thousand).	No Potential. The Study Area does not contain riverine or estuarine waters.	Not Present. No further recommendations for this species.
<i>Spirinchus thaleichthys</i> longfin smelt	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	No Potential. The Study Area does not contain riverine or estuarine waters.	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Invertebrates				
<i>Bombus occidentalis</i> western bumble bee	SC	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared. Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g., mammal burrows). Many plant species are visited and pollinated.	No Potential. As per the Xerces Society (2018), this species is considered extirpated in the Bay Area.	Not Present. No further recommendations for this species.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	No Potential. The Study Area does not contain vernal pools or other suitable seasonal aquatic features (e.g., swales deep and ponded enough to support this species).	Not Present. No further recommendations for this species.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT	Known from the Central Valley and adjacent foothills, in riparian and oak savannah where elderberry (<i>Sambucus</i> sp.), the host plant, is present.	No Potential. Elderberry was not observed during the site visit; CNDDDB occurrences are restricted to Napa County's southeastern-most portion (CDFW 2023a).	Not Present. No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
<i>Speyeria callippe callippe</i> Callippe silverspot butterfly	FE	Two populations are recognized, on San Bruno Mountain and the Cordelia Hills. Host plant is Johnny jump-up (<i>Viola pedunculata</i>), which is found on serpentine soils. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	No Potential. Violet was not observed within the Study Area during the site visit. Additionally, this species' known range with Napa County is restricted to the immediate vicinity of the Cordelia Hills.	Not Present. No further recommendations for this species.
<i>Syncaris pacifica</i> California freshwater shrimp	FE, SE	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy; favors shallow pools away from mainstem flow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	No Potential. Although the Study Area contains an ephemeral stream, this species is known from perennial streams. Additionally, the only documented occurrence in Napa County is from Huichica Creek in the southwest portion of the county (CDFW 2023a).	Not Present. No further recommendations for this species.

***Key to status codes:**

FC	Federal Candidate for Listing
FE	Federal Endangered
BGEPA	Bald and Golden Eagle Protection Act Species
FT	Federal Threatened
LR	Locally Rare as per Napa County Baseline Report
SC (E/T)	State Candidate for Listing (Endangered/Threatened)
SE	State Endangered
SFP	State Fully Protected Animal
SR	State Rare
SSC	State Species of Special Concern
ST	State Threatened
CRPR 1A	CNPS CRPR 1A: Plants presumed extinct in California
CRPR 1B	CNPS CRPR 1B: Plants rare, threatened or endangered in California and elsewhere
CRPR 2A	CNPS CRPR 2A: Plants presumed extirpated in California, but more common elsewhere
CRPR 2B	CNPS CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3	CNPS CRPR 3: Plants about which CNPS needs more information (a review list)

CRPR 4 CNPS CRPR 4: Plants of limited distribution (a watch list)
WBWG Western Bat Working Group High or Medium-high Priority Species

Potential to Occur:

No Potential: Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Unlikely: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Results and Recommendations:

Present: Species was observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site recently.

Assumed Present: Species is assumed to be present on-site based on the presence of key habitat components.

Assumed Present without Impact: Species assumed present; however, project activities will not have an impact on the species.

Presumed Absent: Species is presumed to not be present due to a lack of key habitat components.

Not Present: Species is considered not present due to a clear lack of any suitable habitat and/or local range limitations.

Not Observed: Species was not observed during dedicated/formal surveys or otherwise

Presence Unknown: Species has the potential to be present, but no dedicated surveys to determine absence/presence were performed.

Appendix D

Representative Photographs



Annual grassland and coast live oak woodland in the eastern portion of the Study Area. (Taken: June 29, 2022)



Blue gum grove along the reservoir in the eastern portion of the Study Area. (Taken: June 29, 2022)



Coast live oak woodland near the Project Area. (Taken: June 29, 2022)



Reservoir and adjacent grassland with portion of a seasonal wetland in the northwestern portion of the Project Area. (Taken: April 26, 2023)

Appendix E
Statement of Qualifications

Appendix E. Statement of Qualifications

WRA is an environmental consulting firm with over 31 years of experience conducting biological resources assessments, wetland delineations, protocol-level rare plant surveys, special-status wildlife assessments and species-specific surveys, as well as preparing applications with state and federal natural resource agencies for avoiding, minimizing, and mitigating impacts to sensitive natural resources. Other services and products with which WRA has expertise include preparation of CEQA/NEPA documents, habitat mitigation and monitoring plans, natural resource management plans, mitigation and conservation bank enabling instruments, grazing management plans, and wetland and other natural resources restoration plans.

Matt Richmond, BS, Principal with WRA, has over 19 years of experience performing botanical assessments, rare plant surveys, environmentally sensitive habitat area surveys, wetland delineations, and vegetation mapping. He also has experience performing protocol-level surveys for California red-legged frog, Ridgway's rail, marbled murrelet, northern spotted owl, Point Arena mountain beaver, and Behren's silverspot butterfly. His project focus is in conservation and mitigation banking, coastal development projects, vineyard development, and timber resources. Mr. Richmond regularly manages large-scale mitigation banking projects, as well as coastal development permits, coastal restoration projects, and vineyard grading permits with a focus in Mendocino, Napa, Lake, and Sonoma counties. Mr. Richmond's technical training includes the flora of Northern California, plant ecology, and forest ecology. Additionally, he has completed the 40-hour Corps wetland delineation training. Mr. Richmond received his Bachelor of Science in Biology from Humboldt State University.

Jason Yakich, MS, Senior Biologist with WRA, has over 16 years of experience performing wildlife habitat assessments, biological monitoring for special-status wildlife species, breeding bird and other avian surveys, and protocol-level surveys for several special-status wildlife species. Additionally, he prepares and oversees a variety of general biological assessments and technical reports at WRA, with a geographic focus on the North Bay counties and North Coast. Mr. Yakich has respective permit authorizations from the USFWS and CDFW to conduct active (call-playback) surveys for California clapper rail and California black rail. Mr. Yakich received his Bachelor of Arts in Biology from U.C. Santa Cruz, and received his Master of Science in Biology from San Francisco State University with a focus on marine and estuarine biology.

Aaron Arthur, MS, Senior Plant Biologist with WRA, has over 16 years of experience performing vegetation & habitat mapping, rare plant surveys, botanical assessments, vegetation change analysis, and wetland delineations. His project focus is on vineyard development, timber resources, coastal development permits, habitat mitigation and monitoring plans, conservation and mitigation banking, and long-term management plans in Sonoma, Marin, Napa, and Mendocino counties. Mr. Arthur's technical training includes the flora of Northern California, the flora of the Pacific Northwest, agrostology, aquatic botany, plant ecology, forest ecology, and soil science. Additionally, he has completed the 40-hour Corps wetland delineation course, holds 2081(a) Plant Voucher Permit, and is Certified California Consulting Botanist #0016 from the California Native Plant Society. Mr. Arthur received his Bachelor of Arts in Geography and received his Master of Science in Physical Geography from Oregon State University, where his research focused on forest floristics and vegetation change.

Appendix B

Cultural Reports

Confidential Cultural Resources Study is Bound Separately*

*The Cultural Resources Study has been bound separately to protect potentially sensitive information about the location and nature of cultural resources.