MITIGATED NEGATIVE DECLARATION

Marin County Environmental Review

Pursuant to Section 21000 et. seq. of the Public Resources Code and Marin County Environmental Impact Review Guidelines and Procedures, a Negative Declaration is hereby granted for the following project.

1. Project Name: Gee Bridge Design Review

2. Location: 135 Wilson Hill Road, Petaluma, CA 94952

3. Project Summary:
   The proposed project consists of improving about 250 feet of an existing unpaved access road and installing a 40-ft. long by 12-ft. wide prefabricated metal bridge across the intermittent tributary of San Antonio creek that bisects the project parcel. The existing driveway and bridge accessing the property from Wilson Hill Road would not be changed.

4. Project Sponsor: Timothy Gee

5. Finding:
   Based on the attached Initial Study and without a public hearing, it is my judgment that:

   ☐ The project will not have a significant effect on the environment.

   ☒ The significant effects of the project noted in the Initial Study attached have been mitigated by modifications to the project so that the potential adverse effects are reduced to a point where no significant effects would occur.

Rachel Reid _____ Date: 2/7/2022

Rachel Reid
Environmental Planning Manager

Based on the attached Initial Study, a Mitigated Negative Declaration is granted.

_____ Date: _____

Community Development Agency Director

1. Mitigation Measures:

   ☐ No potential adverse impacts were identified; and therefore, no mitigation measures are required.

   ☐ Please refer to mitigation measures in the attached Initial Study.

   ☒ The potential adverse impacts have been found to be mitigable as noted under the following factors in the Initial Study attached.

   All of the mitigation measures for the impacts listed above have been incorporated into the project and are required as conditions of approval.

2. Preparation:

   This Mitigated Negative Declaration was prepared by Immanuel Bereket of the Marin County Community Development Agency - Planning Division. Copies may be obtained at the address listed below.

   Marin County Community Development Agency
   Planning Division
   3501 Civic Center Drive, Suite 308
   San Rafael, CA 94903
   (415) 473-6269
   Monday-Thursday, 8:00 a.m. to 4:00 p.m.
   Friday, 8:00 a.m. to 12:00 p.m.

MARIN COUNTY COMMUNITY DEVELOPMENT AGENCY
PLANNING DIVISION

INITIAL STUDY
GEE BRIDGE PROJECT

I. BACKGROUND

A.	**Project Sponsor's Name and Address:**	**Timothy Gee** 135 Wilson Hill Road Petaluma, CA 94952
B.	**Lead Agency Name and Address:**	**Marin County Community Development Agency Planning Division,** 3501 Civic Center Dr., Suite 308 San Rafael, CA 94903
C.	**Agency Contact:**	**Immanuel Bereket** (415) 473-2755 IBereket@marincounty.org

II. PROJECT DESCRIPTION

A.	**Project Title:**	**Gee Bridge Project** (Project ID: DR- P3158)
B.	**Type of Application(s):**	**Design Review**
C.	**Project Location:**	**135 Wilson Hill Road** Assessor's Parcel 106-170-022
D.	**General Plan Designation:**	**AG2- Agriculture**
E.	**Zoning:**	**A-20, Agriculture and Conservation**

F. Description of Project:

ENVIRONMENTAL SETTING

The project site is on an agricultural/ rural residential parcel along Wilson Hill Road, about five miles west of the City of Petaluma in northern Marin County just west of the Sonoma County line. (See Figure 1, Regional Location). Wilson Hill Road



Figure 1
Project Location

Source: Grassetti Environmental and Marin Convention & Visitors Bureau

becomes Chileno Valley Road at the County line.

The project area is comprised of rolling grass-covered hills with rural residences along the road and riparian vegetation along the stream channels. Rock outcrops dot the hills to the south. Grazing is the primary agricultural use in the area; a horse stable/training facility lies immediately west of the project parcel. Locally, there are houses on the parcels immediately east and west of the project parcel. The northern half of the project parcel is landscaped with a single- family home and a number of out buildings. The shared driveway accessing the site includes a bridge that crosses a branch of San Antonio Creek just south of and adjacent to Wilson Hill Road. An incised, intermittent unnamed tributary of that creek crosses the project parcel, and would be crossed by the project bridge.

The total lot size is about 9.55 acres, with about 5 acres lying to the south of the unnamed tributary and 4.55 acres to the north of the channel. The area south of the tributary is undeveloped and grass covered, with a narrow riparian zone consisting of oaks, pines, and willows, and a few recently planted trees near the channel, while the area to the north is developed with the applicant's residence and associated landscaped, and agricultural uses. The overall site elevations range from about 220 to 250 feet above mean sea level (amsl).

PROPOSED PROJECT

Introduction

The proposed project consists of improving about 250 feet of an existing unpaved access road and installing a 40-ft. long by 12-ft. wide prefabricated metal bridge across the intermittent tributary of San Antonio creek that bisects the project parcel. The existing driveway and bridge accessing the property from Wilson Hill Road would not be changed. The proposed new and improved facilities are shown on Figure 2.

Project Objectives

The objective of the bridge is to improve access to the portion of the applicant's property to the south of the tributary channel for fire-fighting, passive recreational, and agricultural activities. Other than the bridge, no new development is proposed on the parcel.

Proposed Roadway Improvements

The driveway improvements would involve a slight widening of the existing unpaved drive from the existing approximately 8 to 9-foot width to 10 feet (8 feet of graveled drive surface and one foot of shoulder on each side) for most of the alignment, connecting to the 8'9" -foot wide bridge roadway (the bridge also includes side dams for a total width of 12 feet). This would require minor grading (approximately 74



Figure 2
Project Site

Source: Grassetti Environmental and CSW/Stuber-Stroeh Engineering Group, Inc.

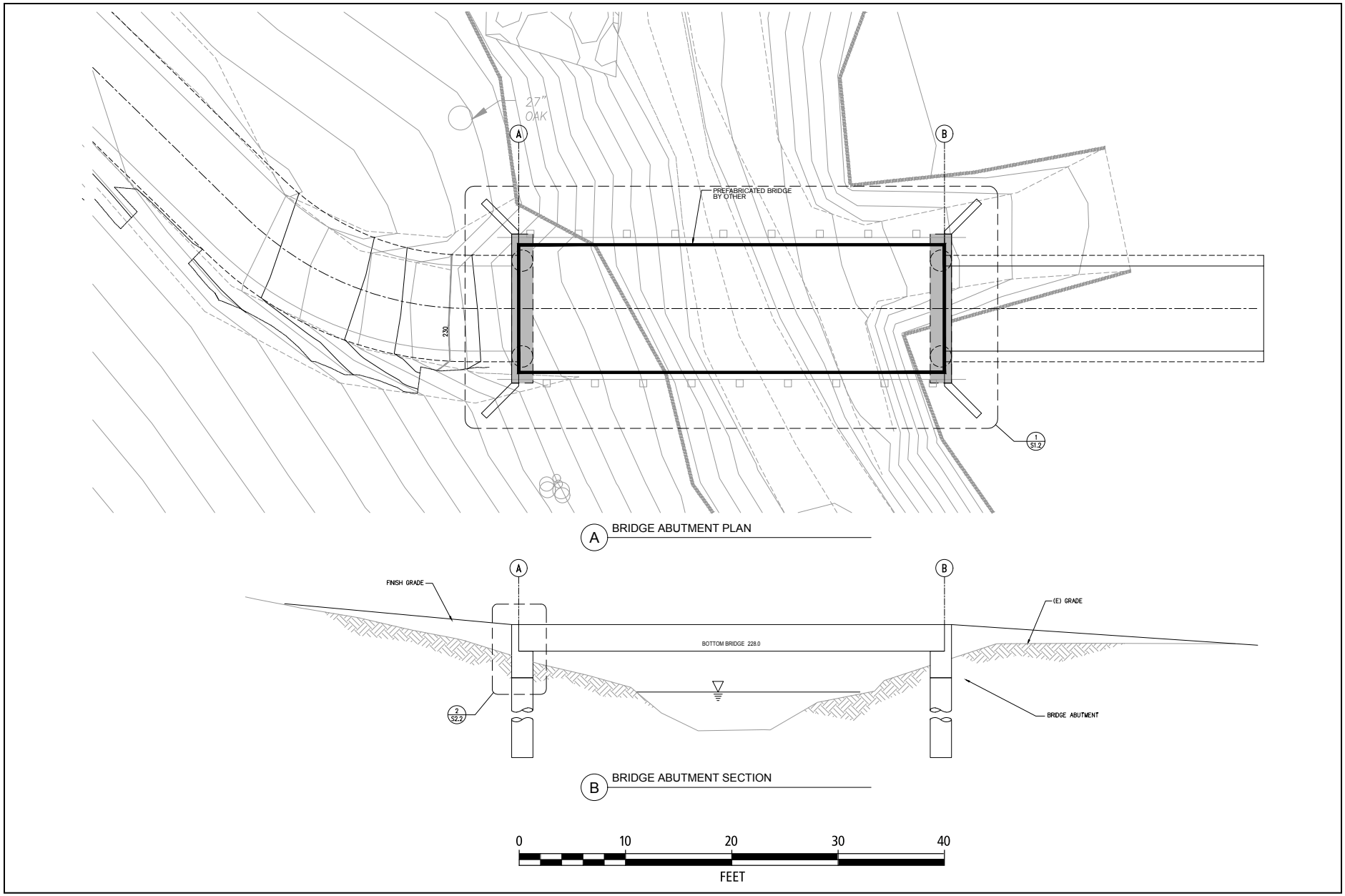


Figure 3
Bridge Plan and Profile Details

Source: Grassetti Environmental and CSW/Stuber-Stroeh Engineering Group, Inc.

cubic yards of cut and 7 cubic yards of fill, with the excess soils being disposed of elsewhere on-site. The improved roadway would involve placing 8 inches of ¾-inch base rock aggregate (gravel) over a compacted soil base. The roadway would remain unpaved. Up to two Aleppo pine tree (not considered protected or heritage trees under County ordinance) and some shrubs would be removed at the entrance to the improved roadway, near the existing shared driveway.

Proposed New Bridge

The new bridge structure would be over 12-ft wide with a 12-foot-wide clear width roadway surface and 3.5-foot-high guard railings on each side. It would be designed to accommodate vehicle use, including farm equipment and emergency vehicles such as fire trucks. The proposed bridge would be a pre-fabricated steel girder structure to be placed by a crane onto newly constructed bridge abutment structures (See Figure 3). Each of the abutments would consist of two 24-inch diameter piers located just outside of the top-of-bank on either side of the tributary creek channel. An 8-inch wide concrete retaining wall would be constructed behind the piers, and four-foot long wing walls would extend off of that wall on both ends. The piers would be drilled to a minimum depth of 20 feet, with a minimum of 15 feet drilled into the bedrock. The proposed abutments are shown on Figure 3.

The bridge elevation would be at 228 feet above mean sea level, which is two feet above the calculated 100-year flood water surface elevation of 226 feet amsl.

Construction Activities, Schedule, and Workers

According to the applicant's engineers, the proposed project would be constructed in a single phase over a 4-6-week period in the late Spring or Summer of 2022, when the creek is dry. The roadway would be graded and compacted, and then surfaced with imported gravel. The bridge would be installed with a crane. Construction vehicles would cross the dry stream channel to install the abutments and roadway improvements on the south side of the bridge. Erosion-control features would be installed prior to and at the conclusion of construction. Removed trees would be replaced as required by the County's tree Ordinance (see Biological Resources section for a discussion of tree removal and replacement).

Approximately 4 workers would be on-site during construction. Parking, storage and lay-down would be on previously disturbed areas on the applicant's parcel.

III. CIRCULATION AND REVIEW

This Initial Study/Mitigated Negative Declaration is being circulated for a 30-day review and comment period pursuant to State CEQA Guidelines Section 15073. It is being circulated to all agencies that have jurisdiction over the subject property or the natural resources affected by the project and to consultants, community groups, and interested parties to attest to the completeness and adequacy of the information contained in the Initial Study as it relates to the concerns which are germane to the agency's or organization's jurisdictional authority or to the interested parties' issues.

Marin County Agencies:

- Marin County Department of Public Works (DPW) – Grading Permit

Design Review. Discretionary Design Review would be required for the bridge. Design Review typically focuses on issues such as site improvements, architecture, and impacts to the light, views, and privacy enjoyed on surrounding properties.

Trustee and Responsible Agencies:

- California Department of Fish and Wildlife
- California Regional Water Quality Control Board

IV. EVALUATION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to Section 15063 of the State CEQA Guidelines, and the County EIR Guidelines, Marin County will prepare an Initial Study for all projects not categorically exempt from the requirements of CEQA. The Initial Study evaluation is a preliminary analysis of a project which provides the County with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration. The points enumerated below describe the primary procedural steps undertaken by the County in completing an Initial Study checklist evaluation and, in particular, the manner in which significant environmental effects of the project are made and recorded.

A. The determination of significant environmental effect is to be based on substantial evidence contained in the administrative record and the County's environmental data base consisting of factual information regarding environmental resources and environmental goals and policies relevant to Marin County. As a procedural device for reducing the size of the Initial Study document, relevant information sources cited and discussed in topical sections of the checklist evaluation are incorporated by reference into the checklist (e.g. general plans, zoning ordinances). Each of these information sources has been assigned a number which is shown in parenthesis following each topical question and which corresponds to a number on the data base source list provided herein as Attachment 1. See the sample question below. Other sources used or individuals contacted may also be cited in the discussion of topical issues where appropriate.

B. In general, a Negative Declaration shall be prepared for a project subject to CEQA when either the Initial Study demonstrates that there is no substantial evidence that the project may have one or more significant effects on the environment. A Negative Declaration shall also be prepared if the Initial Study identifies potentially significant effects, but revisions to the project made by or agreed to by the applicant prior to release of the Negative Declaration for public review would avoid or reduce such effects to a level of less than significance, and there is no substantial evidence before the Lead County Department that the project as revised will have a significant effect on the environment. A signature block is provided in Section VII of this Initial Study to verify that the

project sponsor has agreed to incorporate mitigation measures into the project in conformance with this requirement.

C. All answers to the topical questions must take into account the whole of the action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Significant unavoidable cumulative impacts shall be identified in Section V of this Initial Study (Mandatory Findings of Significance).

D. A brief explanation shall be given for all answers except "Not Applicable" answers that are adequately supported by the information sources the Lead County Department cites in the parenthesis following each question. A "Not Applicable" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "Not Applicable" answer shall be discussed 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).

E. "Less Than Significant Impact" is appropriate if an effect is found to be less than significant based on the project as proposed and without the incorporation of mitigation measures recommended in the Initial Study.

F. "Potentially Significant Unless Mitigated" applies where the incorporation of recommended mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead County Department must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section IV, "Earlier Analyses", may be cross-referenced).

G. "Significant Impact" is appropriate if an effect is significant or potentially significant, or if the Lead County Department lacks information to make a finding that the effect is less than significant. If there are one or more effects which have been determined to be significant and unavoidable, an EIR shall be required for the project.

H. The answers in this checklist have also considered the current State California Environmental Quality Act Guidelines and Appendix G contained in those Guidelines.

Environmental Factors Potentially Affected

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

- ☐ Aesthetics
- ☐ Agriculture and Forestry Resources
- ☐ Air Quality
- X Biological Resources
- ☐ Cultural Resources
- ☐ Energy
- X Geology and Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology and Water Quality
- ☐ Land Use and Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities and Service Systems
- ☐ Wildfire
- ☐ Mandatory Findings of Significance

Environmental Impact Checklist

1 Aesthetics

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

a) Have a substantial adverse effect on a scenic vista?

The project area is in the Wilson Hill Road area, which affords views or pastoral landscapes and ridges with rock outcrops (See Photos 1 and 2). The Countywide Plan (CWP) identifies undeveloped ridges and upland greenbelts as important scenic resources, however the Project site is not within a designated Ridge and Upland Greenbelt area identified in the CWP.

The project bridge and roadway would be low-lying and would not be visible from any public vantage points. The neighboring property to the east may have views of the bridge from nearby areas of their property. Elsewise, neither the bridge or roadway improvement would be visible from off-site. There would be **no impact** to scenic vistas.

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

The project would remove two Aleppo pine trees and some ornamental shrubs at the entrance to the improved roadway from the existing shared driveway. These would not require a tree removal from the County. This tree removal would not be visible from off-site. The project site is distant from any State scenic highways. No rock outcroppings or historic buildings would be affected. Therefore, there would be **no impact** to scenic resources within a State scenic highway.



Photo 1: View of Proposed Bridge Crossing Area Looking South



Photo 2: View of Proposed Roadway Improvement Alignment Looking South

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

As discussed in Item a), above, there are no public views of the project site. Therefore, the project would have **no impact** in terms of degrading any such views.

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

The proposed bridge and roadway improvements would not include any lighting or any elevated reflective materials that could result in glare. Therefore, the project would have **no impacts** to light or glare.

2 Agriculture and Forestry Resources

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
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))?	☐	☐	☐	X
d) Result in the loss of forest land of conversion of forest land to non-forest use?	☐	☐	☐	X
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?	☐	☐	☐	X

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?

Lands at the site are zoned and designated Agriculture in the County's General Plan. The site is mapped as "Farmland of Local Importance."[1] The project would not affect any farmland, as the access road already exists and the proposed bridge would be over a creek and its steep banks. The project would improve accessibility of the 5-acre portion of the site south of the creek channel for agricultural uses. Therefore, it would have **no adverse impact** to prime or unique farmlands, or farmlands of statewide importance.

[1] (https://maps.conservation.ca.gov/DLRP/CIFF/ - accessed October 21, 2021).

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed bridge and roadway improvements would be compatible with the project site's Agricultural zoning and Countywide Plan designations. The site is not under Williamson Act contract. Therefore, **no impact** would occur with respect to these designations.

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))?

The project site is not designated as, or used for forestry or timber production. It is mostly open grasslands and residential in use. Therefore, the proposed project would have **no impact** with respect to forest and timber uses.

d) Result in the loss of forest land of conversion of forest land to non-forest use?

See response to Item c), above. The project would have **no impact** with respect to conversion of forest lands to other uses.

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?

As noted above, the project would improve access to about 5 acres of agriculturally zoned lands. It would have **no adverse impacts** to such lands.

3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

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

Background

According to the Bay Area Air Quality Management District (BAAQMD), Marin County is a distinct climatological sub-region of the Bay Area air basin. The air pollution potential is highest in eastern Marin, where most of its population resides. Marin County has few large-scale air polluting industries, rather most of the air pollutants affecting its population come from motor vehicles — especially from traffic using Highway 101 and the connecting major arterial roadways.

The Project site is located in rural, north-central Marin County where the predominant land use is primarily agricultural with very low-density residential. The BAAQMD's *Permitted Sources Risk and Hazards Map* shows no local stationary pollutant sources within 2 miles of the Project site with the nearest substantial cluster of local stationary sources centered on Petaluma about 5 miles from the Project site. Highway 101, the largest local transportation source of air pollutants, passes about 5 miles to northeast at its closest approach to the Project site.

Ozone and suspended particulate matter (i.e., two types of the latter - particulate matter less than ten microns in diameter [PM_{10}] and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]) are of particular concern in the Bay Area, which is currently designated "nonattainment" for state and national ozone ambient air quality standards, for the state PM_{10} standards, and for state and national $PM_{2.5}$ standards. It is "attainment" or "unclassified" with respect to all the other major air pollutants.

The BAAQMD maintains a number of air quality monitoring stations, which continually measure the ambient concentrations of major air pollutants throughout the Bay Area. The closest such monitoring station to the Project site is at 534 4th Street in San Rafael, about 18 miles to the southeast of the Project site. The data collected show occasional violations of the ozone and $PM_{2.5}$ particulate standards, as shown in Table AQ-1. Violations of the particulate standards have become more frequent throughout the Bay Area in recent years because of the increasing influence of wildfires in California and the western United States.

Table AQ-1: Local Ambient Air Quality Monitoring Summary

Pollutant	Air Quality Standard	Maximum Concentrations and Number of Days Standards Exceeded		
		2017	2018	2019
Ozone				
Maximum 8-hour concentration (ppm)		63	53	80
# Days 8-hour California standard exceeded	70 ppb	0	0	1
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppb)		53	55	50
# Days national 1-hour standard exceeded	100 ppb	0	0	0
Suspended Inhalable Particulates (PM_{10})				
Maximum 24-hour concentration (µg/m^3)		94	166	33
# Days national 24-hour standard exceeded	150 µg/m^3	0	13	0
Suspended Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m^3)		74.7	167.6	19.5
# Days national 24-hour standard exceeded	35 µg/m^3	8	13	0

Notes:
As monitored at the BAAQMD station at 534 4th Street in San Rafael.
µg/m^3 = micrograms per cubic meter
ppb = parts per billion.

Source: BAAQMD Annual Bay Area Air Quality Summaries http://www.baaqmd.gov/about-air-quality/air-quality-summaries

The air quality analysis was performed using the methodologies and significance thresholds recommended in *CEQA Air Quality Guidelines* (*Guidelines*; BAAQMD, May 2017, Table 2-1). The air pollutant impacts evaluated in the Item b discussion below are from precursors to ozone formation (i.e., reactive organic compounds [ROG] and nitrogen oxides [NO_x]) and small-diameter particulate matter (i.e., PM_{10} and $PM_{2.5}$).

According to the *Guidelines*, any Project would have a significant potential for obstructing air quality plan implementation or making a cumulatively considerable contribution to a regional air quality problem if its pollutant emissions would exceed any of the thresholds presented in Table AQ-2.

TABLE AQ-2: CEQA Air Quality Significance Thresholds for Air Pollutant Emissions

Pollutant	Construction Average Daily (lbs./day)	Operational	
		Average Daily (lbs./day)	Maximum Annual (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Oxides of Nitrogen (NO_x)	54	54	10
Inhalable Particulate Matter (PM_{10})	82 (exhaust)	82	15
Fine Inhalable Particulate Matter ($PM_{2.5}$)	54 (exhaust)	54	10
PM_{10}/$PM_{2.5}$ (Fugitive Dust)	BMPs[a]	N/A	N/A

Notes: BMPs = Best Management Practices
N/A = Not Applicable

[a] If BAAQMD Best Management Practices (BMPs) for fugitive dust control are implemented during construction, the impacts of such residual emissions are considered to be less than significant.

Source: Bay Area Air Quality Management District, May *2017, CEQA Air Quality Guidelines*.

In addition to the major air pollutants (as identified above), many other chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure. A wide variety of sources, stationary (e.g., dry cleaning facilities, gasoline stations, and emergency diesel-powered generators, etc.) and mobile (e.g., motor vehicles, construction equipment, etc.), emit TACs. The health effects associated with TACs are quite diverse. TACs can cause adverse health effects from long-term exposure (e.g., cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage) and/or from short-term exposure (e.g., eye watering, respiratory irritation, running nose, throat pain, and headaches). Most of the estimated carcinogenic/chronic health risk in California can be attributed to relatively few airborne compounds, the most important being particulate matter from diesel-fueled engines (DPM). The California Air Resources Board (CARB. *Summary: Diesel*

Particulate Matter Health Impacts) has identified DPM as being responsible for about 70 percent of the cumulative cancer risk from all airborne TAC exposures in California.

The *Guidelines* establish a relevant zone of influence for an assessment of project-level and cumulative health risk from TAC exposure to an area within 1,000 feet of a project site. Project construction-related or Project operational TAC impacts to sensitive receptors within the zone that exceed any of the following thresholds are considered significant:

- An excess cancer risk level of more than 10 in one million
- A non-cancer hazard index greater than 1.0.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) for annual average $PM_{2.5}$ concentrations.

Cumulative impacts from TACs emitted from freeways, state highways or high-volume roadways (i.e., the latter defined as having traffic volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and from all BAAQMD-permitted stationary sources within the zone to sensitive receptors within the zone that exceed any of the following thresholds are considered cumulatively significant:

- A combined excess cancer risk level of more than 100 in one million.
- A combined non-cancer hazard index greater than 10.0.
- A combined incremental increase in annual average $PM_{2.5}$ concentrations greater than 0.8 $\mu g/m^3$.

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

In the Bay Area, the current applicable regional air quality plan is the BAAQMD's *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Plan), which focuses on two closely-related goals: protecting regional public health and protecting the global climate (the latter issue addressed in Section 8 below). The 2017 Plan defines an integrated, multi-pollutant control strategy to reduce emissions of particulate matter, TACs, ozone precursors, and GHGs based on four key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon and fluorinated gases.
- Decrease demand for fossil fuels (i.e., gasoline, diesel and natural gas).
- Decarbonize the energy system.

The Project would install a prefabricated metal bridge across a creek tributary that crosses the project parcel, and implement minor improvements to an existing unpaved road accessing the bridge. The bridge and road would be for the private use of the site residents, improving access to the portion of the property south of the creek for firefighting, passive recreational, agricultural activities, etc. After

installation, the bridge would not generate air pollutant emissions either directly (i.e., since there would not be any new stationary sources of pollutant emissions associated with the bridge) or indirectly (i.e., since the bridge would not carry traffic from any connecting public roadways).

Thus, the Project would not impede the implementation of the control strategies or the attainment of goals set in the BAAQMD's 2017 Plan. Also, ROG, NOx and PM emissions generated during construction of the Project would be less than the BAAQMD CEQA significance thresholds (see discussion in Item b below). Therefore, the project's impact on the implementation of air quality plans is less than significant.

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.

The BAAQMD Guidelines recommend quantification of Project construction and operational emissions and their comparison to the CEQA significance thresholds. For this, the California Emissions Estimator Model (CalEEMod, Version 2020.4.0) provided the construction equipment emission rates that were used together with project-specific construction equipment types/numbers and project phasing to estimate construction emissions.

Table AQ-3 shows the estimated exhaust air-pollutant emissions for each Project construction phases from construction equipment, haul/delivery trucks and worker commute vehicles, and comparisons with the BAAQMD CEQA significance thresholds. All emissions would be well below significance thresholds and the impact would be less than significant.

TABLE AQ-3: Project Construction Pollutant Emissions (Maximum Pounds per Day)

Construction Phase	ROG	NOx	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Bridge Foundation Excavation	0.95	7.98	0.31	0.29
Concrete Pour	0.04	0.11	0.00	0.00
Bridge Installation	0.57	5.89	0.27	0.24
Road Construction	1.73	15.84	0.72	0.67
Significance Thresholds	**54**	**54**	**82**	**54**
Significant Impact?	**No**	**No**	**No**	**No**

c) Expose sensitive receptors to substantial pollutant concentrations?

The nearest sensitive receptor to the Project site is the residence of the project sponsor/property owner, which is located about 125 feet north of the bridge construction site, while the nearest residences on adjacent properties are 500-1000 feet from the bridge site.

Cancer risk is the probability of developing cancer from a lifetime exposure (i.e., 70 years) to a particular carcinogenic TAC. The likelihood of other adverse chronic health impacts unrelated to cancer are measured using a TAC-specific hazard index (HI), defined as the ratio of a project's incremental annual TAC concentration to a published reference exposure level (REL). Health risk assessments (HRA) for TAC and fine inhalable particulate exposures to nearby sensitive receptors are conducted following guidelines established by the California Office of Environmental Health Hazard Assessment (OEHHA).

However, given the Project circumstances, the cancer risk/chronic hazard/fine particulates from construction equipment DPM emissions would be far below the BAAQMD significance thresholds for the following reasons: 1) the relatively small equipment sets specified for each Project construction sub-phases (i.e., one each – dozer, backhoe, dump truck, and roller for access road construction; the equipment sets needed for the other sub-phases would be even smaller), producing lesser TAC concentrations at local receptors; 2) the relatively short times that the equipment would be active in each sub-phase (i.e., 5 days total for each), reducing local receptor exposure durations (i.e. cancer risk is typically evaluated over a reference 70-year exposure period, with chronic hazard and particulate exposures over a year-long exposure period); and 3) the relatively large distances between the bridge construction site and the few nearest off-Project site residences (i.e. 500-1000 feet). Thus, there would be a less-than-significant health risk to local sensitive receptors from ambient exposure to DPM from Project construction.

After it is operational, the Project would not include any new stationary TAC emission sources nor accommodate any TAC-emitting traffic flows from public roadways.

Cumulative TAC exposures at local sensitive receptors would be the same as from Project construction sources because there are no permitted stationary TAC sources nor any major roadways within 1000 feet of the Project site. Thus, cumulative TAC impacts would be even further below the BAAQMD cumulative thresholds for cancer risk, chronic hazard and annual PM2.5 concentration.

To reduce the exposure of local sensitive receptors to PM10 and PM2.5 in the fugitive dust released during Project construction, the BAAQMD Guidelines require that all Bay Area construction projects implement Best Management

Practices (BMPs) to control fugitive dust emissions. Thus, the following basic control measures must be implemented by the Project construction contractor:

BAAQMD Required Dust Control Measures: The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- 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 track-out 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 surfaces shall be limited to 15 miles per hour.
- 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.
- A publicly visible sign shall be posted with the telephone number and person to contact at Marin County Planning regarding dust complaints. This person shall respond and take corrective action with 48 hours. The BAAQMD's phone number shall also be included to ensure compliance with applicable regulations.

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

Project operation would not introduce any new sources of odor emissions to the area. However, the Project's diesel-powered construction equipment would emit odorous exhaust that could impact existing local residents. But Project construction activities would be short-term (a month total) and the closest odor-sensitive receptors (other than the Project sponsor's residence on the Project site) would be the existing residences on the adjacent property parcels, which are all at distances of 500-1000 feet from the bridge site. So, construction odor emissions would not affect a substantial number of people, nor be substantially objectionable to any particular receptor over extended periods. No impact would occur.

4 Biological Resources

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	☐	X	☐	☐
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 Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
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?	☐	☐	X	☐
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?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X

A database review was conducted (CNDDB 2021; CNPS 2021; IPaC 2021) to determine the location of documented special-status plant and wildlife species relative to the project site. Additionally, commercially available aerial photography and existing site GIS and CAD data were obtained and reviewed to generally identify habitat types and features on and near the project site.

A site visit was then conducted by Cassie Pinnell, Senior Ecologist at Vollmar Natural Lands Consulting on October 18, 2021. Ms. Pinnell reviewed the proposed project footprint, as well as immediate surrounding areas, to identify and characterize the habitat types present on and bordering the site. The potential occurrence of special-status plant

and wildlife species was evaluated based on an analysis of onsite habitats, known home ranges and/or distribution of target species, and other biological characteristics (see Appendix A, Biological Resources). The site was also inspected for potentially jurisdictional resources (e.g., wetlands, drainages) and sensitive plant communities. Additionally, all trees in the immediate vicinity of the proposed project area were identified, and mapped with their diameter at breast height (dbh).

The project site consists of an existing unpaved access road, landscaped residential area, oak woodland, a small intermittent channel, and non-native annual grassland. The surrounding area includes rural residences surrounded by grazed, primarily non-native annual grasslands. The grassland areas (including the edge of the unpaved access road) within the proposed project site are mowed, and dominated by weedy annual species including slender wild oat (*Avena barbata*), annual bluegrass (*Poa annua*), rough dog's-tail (*Cynosurus echinatus*), and field bindweed (*Convolvulus arvensis*). No large burrows or burrow complexes were observed in the grassland areas, though some evidence of small mammal use (voles) was noted. Residential landscaping within the project area includes cultivated trees, such as Aleppo pines (*Pinus halepensis*) and olives (*Olea europaea*).

The oak woodland area includes mature valley oak trees (*Quercus lobata*), measuring up to 30" dbh. The oak trees could support nesting or migratory bird use, including special-status bird species such as oak titmouse (*Baeolophus inornatus*) or Nuttall's woodpecker (*Picoides nuttallii*). The understory of the oak woodland includes heavy leaf litter, with lightly vegetated areas including the non-native grassland species detailed above.

The intermittent tributary of San Antonio Creek is approximately 5 meters wide, and deeply incised (approximately 3 meters). The channel includes rip-rap, presumably placed for erosion control. The channel was dry at the time of the site visit, and was largely unvegetated. A few small willows (*Salix laevigata*) were scattered along the upper banks. Overall, the channel provides very limited habitat for special-status species (due to its degraded state and intermittent flow), but could provide a low-quality dispersal corridor for special-status herptiles[2] known from the region such as California red-legged frog (*Rana draytonii*), foothill yellow-legged frog – Northwest/North Coast clade (*Rana boylii*), or western pond turtle (*Emys marmorata*).

No special-status plant species nor wetland features (beyond the intermittent channel) were observed within the project area.

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?

The proposed work includes slight widening of an existing dirt road, with minor grading, bridge support (abutments and retaining wall), and installation of a 40ft

[2] Herptiles are reptiles and amphibians.

long prefabricated metal bridge. The proposed work would include the removal of one or two Aleppo Pine trees and some landscape shrubs near the onsite residence.

The proposed work would be limited to an existing dirt road, and small portion of an adjacent ruderal grassland, and would be conducted outside of top-of-bank of the intermittent tributary to San Antonio. In addition, the work would be conducted during the dry season and would include development and implementation of a construction erosion control plan to protect the intermittent tributary (see Soils and Geology section).

Wildlife special-status species known from the vicinity include foothill yellow-legged frog, western pond turtle, California red-legged frog, burrowing owl, and the American badger (See Appendix A for a full list of species). There is no habitat available within the work footprint for burrowing owl or American badger, as no large burrow complexes were observed, and therefore these species are not expected to occur within the project site.

Foothill yellow-legged frog, western pond turtle, and California red-legged frog could utilize the intermittent channel as they move between ponds on adjacent properties. However, no work will be conducted in the channel, and all work would be conducted during the dry season. Therefore, this project is not expected to impact these species, and no additional mitigation measures are proposed.

Migratory, nesting, and special-status bird species could occur on the project site, especially in the mature trees on site (Aleppo pines and Valley oaks) including oak titmouse and Nuttall's woodpecker. Due to the potential presence of nesting or migratory birds, mitigation measures to limit disturbance should be implemented if the project construction activities would occur within the nesting bird window from February 1st through August 31st (see **Mitigation Measure BIO-1**). This measure would reduce these potential impacts to a **less-than-significant** level.

Special-status plant species known from the vicinity include Mason's ceanothus, bent-flowered fiddleneck, Baker's larkspur, golden larkspur, and two-fork clover (See Figure Bio-1 and Table 2 in Appendix A). Due to the highly degraded quality of the project area, and lack of potential habitat, these special status plants are not expected to occur within the project site.

Though the project activities are occurring adjacent to a stream channel, the channel is intermittent, incised, lined with rip-rap, and lacking substantial vegetative cover (see photos in Appendix A). Due to the degraded quality of the habitat, the complete avoidance of the channel, and the construction schedule timing (dry season), any potential impacts to special-status species are expected at a **less-than-significant** level.

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 Game or U.S. Fish and Wildlife Service?

No riparian vegetation would be removed, and no modifications would be made to the channel of the intermittent tributary to San Antonio Creek. The project would have no impact on riparian habitat or other sensitive natural communities. Therefore, **no impact** would occur. However, due to the proximity of the project to an intermittent channel, consultation with CDFW should be sought under a Section 1602 notification.

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?

The proposed work would be occurring outside of top-of-bank of the intermittent tributary to San Antonio Creek. The work would be conducted during the dry season, with erosion control measures in place (see Soils and Geology section). No additional wetlands were identified during the site visit, and no removal, filling, or hydrological interruption is included in the proposed project. As detailed in the Hydrologic Study conducted for the project, the project would not affect the hydrologic conditions of the watershed or hydraulic conditions of the channel. The runoff and peak discharge rate would be the same in the pre-project and post project condition (CSW/ST2 2020). With the implementation of erosion control measures, and timing the project for the dry season, this project would have a **less-than-significant impact** to wetlands.

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?

The proposed work would be along an existing roadway and would occur outside top-of-bank of the intermittent tributary. Due to avoidance of the intermittent tributary, the proposed work is not expected to limit the movement of migratory fish or wildlife. **No impact** would occur. Migratory birds are discussed under Item 4a, above.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The County of Marin Community Development Agency Planning Division requires a Tree Removal Permit in any of the following instances: 1) More than 2 Protected Trees are being removed from a developed lot in a 12-month period; 2) The tree qualifies as a Heritage Tree; 3) The tree is a Protected Tree or Heritage Tree and is located in a Stream Conservation Area or a Wetland Conservation Area; 4) Any removal of Protected Trees on a vacant lots; and 5) The trees

proposed for removal do not qualify for an exemption under Section 22.62.040 of the Marin County Code.

The project is proposing to remove up to two Aleppo pine trees (18" dbh). These trees are cultivated and do not qualify as Protected Trees under the County's ordinance. These trees are not located in a Stream Conservation Area or Wetland Conservation Area. Due to these trees not qualifying as a Protected Tree, they do not require a Tree Removal Permit and their removal does not pose a conflict with local tree preservation policies, nor any other local policies protecting biological resources. **No impact** would occur.

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?

This project is not proposing a significant loss of habitat nor impacts to special-status species, and does not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plans. **No impact** would occur.

Mitigation Measures

Mitigation Measure BIO-1: Nesting Bird Surveys. A biologist familiar with the natural history and identification of oak titmouse, Nuttall's woodpecker, and migratory birds shall conduct a nesting bird survey within 48 hours prior to construction activities. Should a nest be found in the project area, a 50-foot buffer around the nest shall be established until the young have fledged and left the nest or until the biologist has deemed that that the nest has become inactive due to natural causes.

Monitoring Measure BIO-1. Before issuance of a Building Permit, the CDA shall confirm that special-status bird protection measures have been incorporated in the Project plans and specifications. These include submittal by the applicant of a pre-construction survey report prepared by a qualified biologist for review prior to the start of any construction activities. If the pre-construction survey indicates presence of active nests within 200 feet of construction, buffers and restrictions on construction activities within the buffer area shall be implemented as described in the mitigation measure.

5 Cultural Resources

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

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

A Cultural Resources Study (CRS) was completed for the site by Evans and De Shazo, Inc. (EDS)[3]. That assessment included a literature/database review, a check of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), and site reconnaissance, as summarized below.

EDS completed a record search and literature review of the subject Property that included a review of information obtained at the Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS) concerning previously conducted cultural resource surveys and previously recorded cultural resources within and near the subject Property (NWIC File No. 21-0545); a review of historical maps and aerial photographs, and other information related to ownership and development history of the subject Property to assess the potential/sensitivity for historic-period cultural resources to be located within the Project Area and to identify any persons significant in history associated with the subject Property; and a review of geoarchaeological reports and geologic and soils data to determine the potential/sensitivity for prehistoric archaeological resources.

According to information available at the NWIC, the subject Property has not been previously surveyed for cultural sources and there are currently no cultural resources recorded within the Property. However, there have been two cultural resource studies completed within 0.5-miles of the Property, as well as one previously recorded cultural resource (P-21-003104). P-21-003104 is a prehistoric archaeological resource located approximately northeast of the subject Property and is described as an “ash midden on a creek slope and flat area adjacent to [San Antonio] creek, bordered by oaks along creekbank” (King

[3] Evans and De Shazo, Results of a Cultural Resources Study for the Proposed Gee Bridge Project, 135 Wilson Hill Road, Petaluma, Marin County, California. November 30, 2021.

1966). The site is reported to contain artifacts such as mortar and pestle fragments, chert and obsidian debitage, and a “low” quantity of shell. The resource record for P-21-003104 also reports the “probable presence nearby of historic Spanish, Chilean, Chinese settlement” (King 1966).

The Built Environment Resource Directory (BERD) (OHP 2020), the Archaeological Resources Directory (OHP 2012), California Inventory of Historic Resources (OHP 1976), California Points of Historical Interest (OHP 1992), the list of California State Landmarks (OHP 2021), and Five Views: Ethnic Sites Survey for California (California Department of Parks and Recreation 1988) do not list any resources within 0.5-miles of the subject Property.

In addition, the NAHC completed a check of the SLF on November 16, 2021, with information that the record search of the Sacred Lands File was negative for the presence of Sacred Sites for the Project Area. The NAHC works to identify, catalogue, and protect places of special religious or social significance, graves, and cemeteries of Native Americans per the authority given in PRC § 5097.9. EDS also contacted the four individuals and organizations on the Native American contact list to request further information about Sacred Sites, Traditional Cultural Resources, or other properties of traditional religious and cultural importance located within or near to the Project Area, and to inquire about Native American issues related to the overall Project. No responses were received.

A field survey of the Project Area was completed on October 18, 2021. No cultural materials were observed in the Project Area, and no prehistoric artifacts or changes in soil color, texture, or composition that indicate the presence of a prehistoric archaeological resource were observed.

EDS found no historical or archaeological resources within the Project Area; however, general recommendations were provided in the event that buried archaeological resources are encountered during earth-moving activities. These are addressed in Marin County Code section: 22.20.040 - Outdoor Construction Activities.

> *D. Archaeological, Historical, and Paleontological Resources. In the event that archaeological, historic, or paleontological resources are discovered during any construction, construction activities shall cease, and the Agency shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and Federal law. The disturbance of an Indian midden may require the issuance of an Excavation Permit by the Department of Public Works, in compliance with Chapter 5.32 (Excavating Indian Middens) of the County Code.*

Therefore project’s potential impact to historic and archaeological resources is would be **less-than-significant**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

See response to item a), above.

In summary, there are no known archaeological resources at the site, however inadvertent disturbance of unknown archaeological resources may result in a potentially significant impact. This would be reduced to **a less-than-significant** level by the County Code section discussed in Item a), above.

c) Disturb any human remains, including those interred outside of formal cemeteries?

See response to item a), above.

There are no known human remains at the site, however inadvertent disturbance of unknown human remains may result in a potentially significant impact. This would be reduced to a **less-than-significant** level by compliance with the County Code section discussed in a), above.

6 Energy

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

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The Project would install a prefabricated metal bridge across a creek tributary that crosses the project parcel. The bridge would be for the private use of the site residents, and would improve access to the portion of the property south of the creek for firefighting, passive recreational, agricultural activities, etc.

Energy use during project construction would be limited by the relatively small construction equipment sets specified for each sub-phase (i.e., one each – dozer, backhoe, dump truck, and roller – for access road construction, with even smaller numbers for the other sub-phases), and by the relatively short times that the equipment would be active in each sub-phase (i.e., 5 days total for each – foundations, concrete, bridge installation, and road construction; 20 work days total),

After installation, the bridge would not require energy for operation (i.e., since there would not be any bridge mechanisms or lighting systems to power) nor be responsible for indirect energy use by crossing vehicles (i.e., since the bridge would not carry public motor vehicle traffic from any connecting public roadways). Therefore, this impact would be **less than significant**.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The *Marin Countywide Plan* (MCP. Chapter 3, *Built Environment Element*, Section 3.6 Energy and Green Building) defines the following goals for energy use in Marin County:

- **Goal EN-1. Decreased Energy Use**. Reduce total and per-capita nonrenewable energy waste and peak electricity demand through energy efficiency and conservation.

- **Goal EN-2. Increased Renewable Resource Use**. Utilize local renewable energy resources, and shift imported energy to renewable resources.
- **Goal EN-3. Adopt Green Building Standards.** Integrate green building requirements into the development review and building permit process.

The Project would not obstruct attainment of any MCP energy goals because the bridge would not require energy for operation (i.e., since there would not be any bridge mechanisms or lighting systems to power) nor be responsible for indirect energy use by crossing vehicles (i.e., since the bridge would not carry public traffic from any connecting public roadways).

7 Geology and Soils

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	X	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	X	☐
iv) Landslides?	☐	☐	X	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	X	☐	☐
c) Be located on 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?	☐	☐	X	☐
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?	☐	☐	X	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	X	☐

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.

A Geotechnical Investigation was conducted for the proposed project[4]. Information provided in this section is summarized from that report. Published geologic maps of the area do not show active faults crossing the site, and the site is not shown to be within a current Alquist-Priolo Earthquake Fault Zone. The nearest mapped faults considered to be seismically active (experiencing surface rupture within about the last 11,000 years) are the Rodgers Creek and San Andreas fault zones, located approximately 10 miles to the northeast and 9-1/2 miles to the southwest, respectively. Other faults, not currently considered Holocene-active, are located closer to the site. The potentially active Burdell Mountain fault is located approximately 2 miles to the east. An unnamed, possibly active fault is located about 3/4-mile to the northeast. Potentially active faults are considered less prone to renewed movement than active faults. Based on this information, the site is not in an Alquist-Priolo fault Zone and is unlikely to experience fault rupture impacts. Therefore, **no impact** would occur.

ii) Strong seismic ground shaking?

As throughout the entire Marin County area, ground shaking from earthquakes represents a significant geologic hazard to developments. The intensity of ground shaking is dependent on several factors such as distance from the site to the earthquake focus, magnitude of the earthquake and response of the underlying soil and rock. The bridge would be designed, constructed and installed per recommendation in the geotechnical report, therefore it would be designed to resist anticipated seismic shaking at the site, and this impact would **be less than significant**.

iii) Seismic-related ground failure, including liquefaction?

The Geotechnical Investigation did not observe soils considered prone to liquefaction or densification below the weak surface soils. It will be necessary to design and construct the structure in accordance with current standards for earthquake-resistant construction. Construction in accordance with Geotechnical Investigation recommendations would enhance the integrity of the development, however, damage related to faulting/earthquake shaking may still occur during the life of the development. Damage to the bridge would be a **less-than-significant impact,** and could be repaired as necessary

iv) Landslides?

The project would be located on alluvial terraces with shallow slopes (except for the incised creek channel). There are no landslides on or near the proposed project site (Bauer, 2020). The project would not involve any activities or

[4] Bauer Associates, Inc., Report, Geotechnical Investigation, Planned Bridge 135 Wilson Hill Road Petaluma, California. May 8, 2020

facilities that would initiate landslide activity. Therefore, this impact would be **less than significant**.

b) Result in substantial soil erosion or the loss of topsoil?

The Geotechnical Investigation found that erosion of the creek banks could result in over-steepening the banks and reduced slope stability. Minor erosion is evident in the creek near the planned bridge location. The bridge pier/ abutments are set a minimum of 5' from top of bank and beyond a projected slope of 2.5 horizontal to 1 vertical from the existing channel. This accommodates some consideration of future bank erosion. However, additional erosion protection along the creek bank, both upstream and downstream of the planned bridge, may be needed in the future to prevent damage to the bridge footings. Mitigation Measure GEO-1, below, would reduce this impact to a **less-than-significant** level.

Construction activities also could result in erosion. This would be reduced to a **less-than-significant** level by the applicant's proposed preparation of an Erosion Control Plan as well as County requirements associated with the project's grading permit, which include:

> *Grading operations shall not be conducted during the rainy season (October 15 through April 15) without prior approval from the agency. Such approval shall only be given upon clear demonstration, to the satisfaction of the agency, that at no stage of the work will there be any substantial risk of increased sediment discharge from the site. When grading operations are permitted during the rainy season, a phasing plan and work schedule shall be required to ensure that the smallest practicable area of erodible land is exposed at any one time and the time of exposure is minimized. The phasing plan and work schedule must be approved by the agency as part of the ESCP prior to the start of grading or prior to October 1 at the discretion of the agency.*

If the project receives approval from the agency to do work outside the rainy season, that approval would be conditioned to weather conditions. For example, if the dry weather continues then they may consider commencing prior to the April 15 date.

c) Be located on 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?

The Geotechnical Investigation's borings found that the northern abutment area is blanketed by about 10 feet of natural sandy clay surface soils. The surface soils are typically "weak" in the upper 1 to 2 feet. The surface soils are underlain by very stiff to hard sandy clays to about 20 feet in depth. Underlying the clays is

serpentinized shale bedrock. The shale is soft, of low hardness, plastic, moderately weathered, and foliated. The clays and bedrock materials typically have moderate to high strength and are relatively incompressible for the range of anticipated foundation loads. Therefore, site soils would be considered stable and the project had been designed so as not to de-stabilize them. As noted above, creek-related erosion could result in minor instability adjacent to the creek. This impact would be **less than significant**.

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?

Based on visual observation and laboratory testing, the Geotechnical Investigation concluded that surface clays are of moderate to high expansion potential. Expansive soils tend to experience volume changes with seasonal moisture variations. Severe volume changes can potentially crack and heave lightly loaded, shallow foundations. Project foundations have been designed to accommodate these conditions, therefore this impact would be **less than significant**.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project is a roadway improvement and bridge, and would not result in any wastewater generation. Therefore, it would have **no impact** to septic systems.

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

The project involves minimal grading of previously disturbed surface soils for the roadway improvements, and the drilling of four 24-inch diameter by approximately 20-foot-deep footings near the creek channel (with a total of less than 100 sq. ft of subsurface disturbance). Because of their minimal intrusion on subsurface formations, these improvements would not have the potential to significantly affect any paleontological resources. This impact would be **less than significant.**

Mitigation Measures

Mitigation Measure GEO-1: If additional erosion protection along the creek bank upstream or downstream of the planned bridge may be needed in the future to prevent damage to the bridge footings, the protection shall be designed and constructed as described in the Bauer Associates Inc. Geotechnical Report for the project.

Monitoring Requirement GEO-1: Before issuance of a Building Permit for any subsequent stabilization work required by future creek erosion, the CDA shall

confirm with DPW that any geotechnical investigations have been prepared as appropriate and that all applicable geotechnical specifications investigations have been incorporated in the Project plans.

8 Greenhouse Gas Emissions

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

Background

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO2, CH4, and N2O, are also emitted in substantial quantities from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been definitively identified as the driving force behind global climate change.

Human emissions of CO2 are largely by-products of fossil fuel combustion, whereas CH4 results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO2, the most common and influential GHG, in units of “carbon dioxide-equivalents” (CO2e).

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin. As part of that role, the BAAQMD has prepared CEQA *Air Quality*

Guidelines (May 2017) that provide CEQA thresholds of significance for operational GHG emissions from land use projects (i.e., 1,100 metric tons of CO2e per year, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for construction GHG emissions. The Guidelines methodology and thresholds of significance have been used in this Initial Study's analysis of potential GHG impacts associated with the Project.

The CalEEMod model was used to quantify GHG emissions associated with Project construction activities. The estimated construction GHG emissions over the 4 weeks it would take for site preparation and bridge installation would be about 15 metric tons of CO_2e (for which there is no BAAQMD CEQA significance threshold). After the bridge is installed, the Project would not generate any net new GHG emissions either directly (i.e., since there would not be any new stationary GHG sources associated with the bridge) or indirectly (i.e., since the bridge would not carry GHG-emitting motor vehicle traffic from any connecting public roadways). Thus, the Project would not have significant GHG emissions with respect to the BAAQMD operational significance threshold of 1100 metric tons.

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

Assembly Bill 32 (AB32), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25% reduction statewide with mandatory caps for significant GHG emission sources. AB32 directed CARB to develop discrete early actions to reduce GHG while preparing the Climate Change Scoping Plan in order to identify how best to reach the 2020 goal. Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

The BAAQMD's *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Plan), focuses on two closely related goals: protecting public health from air pollutant exposures and protecting the climate. Consistent with the GHG reduction targets adopted by the State of California, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

Marin County Climate Action Plan 2030. The Marin County Climate Action Plan 2030 (2030 CAP), adopted by the County Board of Supervisors (BOS) on December 8, 2020, updates the County's previous climate action plan to make it consistent with current State GHG reduction goals and inventory methodologies, and to incorporate the outcome of Drawdown: Marin. Drawdown: Marin was a two-

year planning process conducted by the County Community Development Agency that engaged residents and businesses in a comprehensive, science- based, countywide campaign to identify actions to dramatically reduce GHG emissions, address equity, and increase community resilience.

In the 2030 CAP, the County establishes the goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and, through a combination of emission reductions and carbon sequestration, reducing net carbon emissions to 60 percent below 2005 levels by 2030 (a goal initially established by Drawdown: Marin), and to zero by 2045. These targets meet and exceed the State goals of reducing emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. To establish the 1990 baseline for the 2030 goal, and consistent with CARB's guidance to local governments, the 2030 CAP estimates 1990 emissions levels as 15 percent below 2005 levels. Using this methodology, GHG emissions from the unincorporated County area in 1990 are estimated at 419,632 MTCO2e, based on the 2005 inventory of 493,685 MTCO2e. The 2030 CAP reports that in 2018 emissions were 380,318 MTCO2e, about 23 percent below the 2005 level, and about 10 percent below the 1990 level.

The 2030 CAP is a "Qualified GHG Reduction Plan" within the meaning of CEQA Guidelines §15183.5, which means that a finding of consistency with the 2030 CAP may be used to determine that a project's GHG impacts would be less than significant. The GHG emissions inventory in the 2030 CAP, Off-Road Sector, includes emissions from the combustion of gasoline and diesel from the operation of off-road vehicles and equipment used for construction, landscape maintenance, and agriculture. This sector emitted 4,471 MTCO2e in 2018, accounting for about 1.2 percent of emissions from the unincorporated County. About 64 percent of emissions from this sector were from off-road construction equipment. While the 2030 CAP identifies State regulatory actions and local strategies to reduce emissions from small off-road equipment such as lawn and garden equipment, the 2030 CAP does not contain any actions or strategies related to large scale construction equipment. The 2030 CAP indicates that while CARB is currently considering regulating small off-road engines, construction and agricultural equipment are regulated by the federal government and are not subject to CARB regulation.

Since the proposed Project would not have any permanent net new GHG emissions after bridge installation, it would not conflict with the State GHG reduction goals of AB 32, nor with the goals and policies of the Marin County Climate Action Plan. Therefore it would have **no impact** with respect to conflicting with GHG-reduction plans and policies.

9 Hazards and Hazardous Materials

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
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?	☐	☐	☐	X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X

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

The project is a roadway improvement and a bridge on a private agricultural/ residential parcel. It would not involve routing transport, use, or disposal of any hazardous materials. Therefore, it would have **no impact** associated with those 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?

The project would not involve the use or storage of hazardous materials. Therefore, it would not have any potential for the release of such materials during the environment. Construction vehicle may drip small quantities of oils and greases onto the ground surface however these would have no potential for creation of a 'significant hazard". **No impact** would occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The nearest school is Chileno School, at 2657 Chileno Valley Road, about half a mile from the project site. The project is not located within one quarter mile of any schools nor would it have the potential to release hazardous substances into the environment. Therefore, it would have **no impact** with respect to student and staff exposure to those materials.

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

There are no mapped Cortese List sites within at least 1 mile of the project site[5]. **No impact** would occur.

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?

The nearest airport to the project site is Petaluma Municipal Airport, about 6 miles east of the project site. In addition, the road and bridge would be no more than a few feet above existing topography and have no potential to affect, or be affected by aircraft activity. Therefore, **no impact** would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would improve emergency access for fire-fighting in the urban/wildlands interface across the creek channel from the Gee residence. **No adverse impacts** would occur.

[5] https://www.envirostor.dtsc.ca.gov/public/map/?global_id=80001855, accessed October 22, 2021

10 Hydrology and Water Quality

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

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

As discussed in Item 7.b) in the Geology section, above, project construction may result in small amounts of erosion that could reach the tributary channel. As

noted in that section, the proposed erosion control plan and County grading Permit requirements would reduce this impact to a **less-than-significant** level.

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

The project would install four 24-inch piers and conduct minor grading for an improved roadway. The gravel roadway would remain permeable. Therefore, it would neither consume any groundwater nor affect recharge or groundwater flows, and **no impact** would occur.

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

i) result in substantial erosion or siltation on- or off-site;

See responses to Item a), above and 7.b), in the Geology section. As described in those discussions, erosion would **be less than significant**.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The proposed roadway would remain unpaved with a deep gravel surface. This would not increase impervious surfaces and no increase in runoff would occur. The bridge itself would allow precipitation to continue to reach the soil below. Therefore, the project would not substantially alter surface runoff quantities and **no impact** would occur.

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

See response to item iii, above. The project would not alter quantities of runoff and no impact would occur.

iv) Impede or redirect flood flows?

There are no mapped flood hazard areas on the site[6]. A hydraulic and hydrologic analysis was conducted for the bridge to assure that it would not impede flood flows[7]. That analysis identified a 100-year peak flow at the site of approximately 470 cubic feet per second, and an accompanying water surface elevation of 226 feet amsl. Bridge abutments would be located above the top of bank and the bottom of the bridge would be set a minimum of 2 feet above the calculated 100-

[6] https://www.marinmap.org/Html5Viewer/Index.html?viewer=smmdataviewer

[7] CSW/Stuber-Stroeh Engineering Group, Inc., Hydraulic Study for Gee Bridge Project Wilson Hill Road, Petaluma, APN 106-170-22, August 31, 2020.

year water surface elevation, as an elevation of 228 feet amsl. Therefore, the project would not impede or redirect flood flows.

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

As discussed in the Geology section of this IS, some bank erosion may occur along the creek in high flows. This is not, however, related to the project; rather it is a natural process. The project consists of a steel bridge and gravel roadway; therefore, it has no potential to release any pollutants in flood conditions. The site is about 15 miles from the coast (Bodega Bay) and not near any major bodies of water. Therefore it is not subject to seiche or tsunami hazards. **No impact** would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project would be consistent with all applicable water quality control plans, and would include erosion control measures consistent with County requirements to minimize impacts to receiving waters. As described above, it would have no impacts to groundwater. Therefore, it would have **no impact** with respect to conflicting with water quality or groundwater management plans.

11 Land Use and Planning

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Physically divide an established community (including a low-income or minority community)?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Result in substantial alteration of the character or functioning of the community, or present planned use of an area?	☐	☐	☐	X
d) Conflict with applicable Countywide Plan designation or zoning standards?	☐	☐	☐	X

a) Physically divide an established community (including a low-income or minority community)?

The proposed project is a small bridge and roadway improvement located entirely on a private residential/agricultural parcel, and near the center of that parcel. It would have no potential to divide or otherwise affect in any way an established community. **No impact** would occur.

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?

The Marin Countywide Plan has numerous policies aimed at protecting sensitive biological resources, creeks, riparian corridors, and wetlands. These include:

- Policy BIO-4.1 Restrict Land Use in Stream Conservation Areas.
- Policy BIO-4.4 Promote Natural Stream Channel Function.
- Policy BIO-4.5 Restore and Stabilize Stream Channels.
- Policy BIO-4.7 Protect Riparian Vegetation.
- Policy BIO-4.14 Reduce Road Impacts in SCAs.
- Policy BIO-4.15 Reduce Wet Weather Impacts.
- Policy BIO-4.18 Promote the Use of Permeable Surfaces When Hardscapes Are Unavoidable in the SCA and WCA.
- Policy BIO-4.19 Maintain Channel Stability.
- Policy BIO-4.20 Minimize Runoff
- Policy WR-2.3 Avoid Erosion and Sedimentation.

As described in Sections 4, Biological Resources and 10, Hydrology, above, the project, with recommended mitigation, would have no potential to significantly adversely affect sensitive species or habitats, wetlands, or streams. The stream function would not be affected as there would be no construction in the channel; the channel would be avoided and stabilized as needed; riparian vegetation would be protected as described in the Biological Resources section; road impacts would be minimized by keeping mostly to the existing road footprint; wet weather and erosion impacts would be avoided through construction in the dry season and when the creek is dry; and runoff would be minimized by use of permeable road surfacing. Therefore, the proposed project would have no potential to conflict with any land use plan or policy aimed at reducing environmental impacts and n**o impact** would occur.

c) Result in substantial alteration of the character or functioning of the community, or present planned use of an area?

See response to Item a, above. The project is entirely internal to a single parcel and is small in scale. Therefore, it would have **no impact** on the local community.

d) Conflict with applicable Countywide Plan designation or zoning standards?

The project site is designated AG2 in the Countywide Plan and zoned A-20, Agriculture and Conservation, per the County's zoning map[8, 9]. Internal driveways and associated small bridges associated with the residential or agricultural uses are permitted by right in these districts. The bridge is subject to Design Review approval. The project would obtain any required grading permits or other authorizations required by state or federal agencies. The project would have no potential to conflict with the site's Countywide Plan or zoning ordinance standards, and **no impact** would occur.

[8] https://www.marincounty.org/~/media/files/departments/cd/planning/currentplanning/development-code-amendments-2017/devcode2016_artii_prd.pdf?la=en

[9] https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update.pdf

12 Mineral Resources

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
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?	☐	☐	☐	X

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project consists of a small bridge and minor roadway improvements on a privately owned residential/agricultural parcel. The project Geotechnical Investigation found that the site is underlain by clays and alluvial deposits, with no known mineral resources (CSW/Stuber-Stroeh, 2021). Therefore **no impact** would occur.

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?

The project site is not identified as an important mineral resource area in the Countywide Plan. **No impact** would occur.

13 Noise

Would the project result in:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	☐	☐	X	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	X	☐
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?	☐	☐	☐	X

Background

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The more powerful the pressure variations, the louder the sound perceived by a listener. The decibel (dB) is the standard measure of loudness relative to the human threshold of perception. Noise is a sound or series of sounds that are intrusive, objectionable or disruptive to daily life. Many factors influence how a sound is perceived and whether it is considered disturbing to a listener; these include the physical characteristics of sound (e.g., loudness, pitch, duration, etc.) and other factors relating to the situation of the listener (e.g., the time of day when it occurs, the acuity of a listener's hearing, the activity of the listener during exposure, etc.). Environmental noise has many documented undesirable effects on human health and welfare, either psychological (e.g., annoyance and speech interference) or physiological (e.g., hearing impairment and sleep disturbance).

Since the Project site is located in an unincorporated area of Marin County, *the Marin Countywide Plan* (Plan; *Built Environment Element*, Chapter 3.10 Noise; adopted 2007) and the Marin County Code of Ordinances (Code; Chapter 6.70 – *Loud and Unnecessary Noises*) are the primary sources for the applicable noise control policies and exposure standards considered in this Initial Study.

The following noise control policies/standards from the Plan and Code are relevant to assessing the potential for noise impacts from Project implementation:

- **Goal NO-1** Protection from Excessive Noise (Plan)
  "Ensure that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life."

- **Policy NO-1.3** Regulate Noise Generating Activities (Plan)
  "Require measures to minimize noise exposure to neighboring properties, open space, and wildlife habitat from construction-related activities, yard maintenance equipment, and other noise sources, such as amplified music."

- **Implementing Program NO-1.a** Enforce Allowable Noise Levels (Plan)
  "Through CEQA and County discretionary review, require new development to comply with allowable noise levels. The Acceptable Noise Levels in Figure 3-41 [of the Marin Countywide Plan – Section 3.10 Noise] shall be used as a guide for determining the appropriate type of new development in relation to its ambient noise environment."

- **Title 6, Chapter 70, Section 030** (Code)
  "Hours for construction activities and other work undertaken in connection with building, plumbing, electrical, and other permits issued by the community development agency shall be limited to the following:
    - *Monday through Friday: seven a.m. to six p.m.*
    - *Saturday: 9 am to 5 pm*
    - *Prohibited on Sundays and Holidays (New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.)"*

The following **Plan standards** are applicable to the low-density single-family residential units on and adjacent to the Project site:

- Normally Acceptable – Ldn [10] < 60 dBA
- Conditionally Acceptable – Ldn < 70 dBA
- Normally/Clearly Unacceptable – Ldn > 70 dBA

The Plan also presents noise contours for Highway 101 (see Plan, Map 3-12, Existing and Proposed Noise Contours) over its entire length in Marin County. As the Project site is about 5 miles west of Highway 101, it is far outside the lowest noise contour shown (i.e., 60 dBA Ldn). Thus, any single-family residential uses on and near the Project site would very likely be exposed to noise levels compatible with the most stringent standards set by the Plan (i.e., Normally Acceptable levels).

[10] Ldn, is a 24–hour average sound level (Leq) with a 10–decibel penalty added to sound levels occurring at night between 10:00 p.m. and 7:00 a.m.

Discussion

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?**

The Project site is located in rural, north-central Marin County where the predominant land use is agricultural with low-density residential located on many individual farmsteads. Highway 101, the largest local transportation noise source, passes about 5 miles to northeast at its closest approach to the Project site. The closest local access road (Wilson Hill Road) passes about 1000 feet north of the proposed bridge site.

The Project site and vicinity were surveyed (Oct. 18, 2021) to observe influential local noise sources and to measure typical on-site daytime noise levels that existing site residents and their neighbors are exposed to. The noise data and survey observations are summarized in **Table NOI-1**. The average daytime noise level was measured to be in the mid-30s dBA. The noise of local traffic was not audible at any time, and no identifiable stationary noise sources were operational during the survey. Only noise from a single high aircraft overflight was noted to peak in the high 30s dBA.

Potentially disturbing noise increments associated with development can occur temporarily during project construction if equipment activity is high and/or sensitive receptors are close, and/or they can be permanent after construction if a project introduces new, substantial noise sources to the site or in its vicinity.

Incremental Noise from Construction

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to estimate the noise levels at various distances from the locus of construction work produced by a typical working group of Project construction equipment (i.e., a dump truck, a backhoe and a crane, the equipment likely to be used during the Project's most intense phases of bridge installation or road construction), as shown in **Table NOI-2**.

During Project construction, noise levels in the outdoor areas of the residences on the neighboring properties to the east and west (which range from 500-1000 feet from the bridge site) could at times be incompatible with normal outdoor living/leisure activities in the residential areas facing the Project site. At these times (i.e., during the 2 weeks of the more intensive construction phases associated with bridge placement or road construction), daytime ambient noise levels may occasionally exceed normal background levels (i.e., ~ 35 dB as measured during the Project survey). But then temporary shifts by the adjacent residents to less-affected outdoor spaces behind their residences or indoors could be accommodated without substantial inconvenience until these more

noise-intensive phases of Project construction are complete. Therefore this impact would be less than significant.

TABLE NOI-1: Daytime Noise Measurement Statistics and Survey Observations



Measurement Location	L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	Observations
Front yard of property owner's residence, about 75 feet north of bridge site. Measurements taken 10/18/21, begin 11:45	32.4	33.3	35.4	37.1	43.5	Highway 101 passes more than 5 miles to the east; closest local road about 1000 feet to the north. Traffic noise not audible on-site. No on-site stationary noise sources operational.

The unit of measurement for table entries is the **decibel (dB)**, the standard measure of a sound's loudness relative to the human threshold of perception. Decibels are said to be **A–weighted (dBA)** when corrections are made to a sound's frequency components during a measurement to reflect the known, varying sensitivity of the human ear to different frequencies. The **Equivalent Sound Level (L_{eq})** is a constant sound level that carries the same sound energy as the actual time–varying sound over the measurement period. **Statistical Sound Levels - L_{min}, L_{90}, L_{10} and L_{max}** - are the minimum sound level, the sound level exceeded 90 percent of the time, the sound level exceeded 10 percent of the time and the maximum sound level, respectively. The measurement duration was ten minutes.

Table NOI-2: Modeled Project Construction Noise Levels

Distance from Area of Construction Activity (feet)	Average Construction Daytime Noise Level L_{eq} (dBA)	Maximum Construction Daytime Noise Level Lmax (dBA)
50	78	81
100	72	75
200	66	69
400	60	63
800	54	57

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM).

Incremental Noise from Project Operation

After Project construction is complete, no noise level increase will occur from any Project operational sources.

b) Generation of excessive groundborne vibration or groundborne noise levels?

There are no policies or standards in the Marin Countywide Plan for avoiding/reducing structural damage or annoyance from vibration impacts. However, it is most common for government agencies to rely on assessment methodologies, impact standards and vibration-reduction strategies developed by the Federal Transit Administration (FTA). According to the FTA, limiting vibration levels to 94 vibration decibels (VdB, a measure of vibration intensity similar to the dB for noise) or less would avoid structural damage to wood and masonry buildings (which are typical of most residential structures), while limiting vibration levels to 80 VdB or less at residential locations would avoid significant annoyance to the occupants.

The most vibration-intensive piece of construction equipment is a pile driver, but no pile driving will be required for the Project. Other types of construction equipment are far less vibration-intensive. Next in intensity are heavily loaded trucks or large tracked earth-moving equipment, which could pose a damage or annoyance threat if they regularly and often come within 25 feet of a vibration-sensitive receptor during construction. But the closest existing vibration-sensitive use to the Project construction site is the residence of the Project sponsor, about 75 feet north of the bridge site. The next nearest residences on the neighboring parcels are 500 feet or more away. Thus, the potential for vibration annoyance/damage from Project construction is less than significant.

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?

The Project site is about 10 miles west of Gnoss Field, a private aviation facility operated by the Marin County Department of Public Works. It is also about 20 miles south of Charles Schultz-Sonoma County Airport. The Marin Countywide Plan (Chapter 3, Built Environment Element, Section 3.10 Noise) presents noise contours for Gnoss Field (see MCP Map 3-13). The Airport's 65 dBA contour (the common federal measure of significant impact from aircraft noise) closely follows (and is just outside) the Airport property. Similar conditions apply to the Sonoma County Airport contour (Sonoma County General Plan 2020, Air Transportation Element, Projected Noise Contours, Figure AT-9). Thus, the potential for annoyance to residents of the Project site or adjacent parcels from aircraft operations out of Gnoss Field or Sonoma County Airport is less than significant.

14 Population and Housing

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan?	☐	☐	☐	X
d) Displace existing housing, especially affordable housing?	☐	☐	☐	X
e) Result in any physical changes which can be traced through a chain of cause and effect to social or economic impacts?	☐	☐	☐	X

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

The project consists of a small bridge and minor roadway improvements. These would neither add, remove, or otherwise affect any housing or population on the property. **No impact** would occur.

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

The project consists of a small bridge and minor roadway improvements. These would have no potential to displace any population on or off of the property. **No impact** would occur.

c) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan?

Please see response to Item a), above. The project would have no effect on population and **no impact** would occur.

d) Displace existing housing, especially affordable housing?

Please see response to Item a), above. The project would have no effect on housing and **no impact** would occur.

e) Result in any physical changes which can be traced through a chain of cause and effect to social or economic impacts?

The project involves installation of a small bridge and minor roadway improvements on a parcel with a single house on it. It would have no effects off-site. Construction would employ around 4 people for up to two months. This would have a negligible impact on the local economy. **No impact** would occur.

15 Public Services

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	☐	☐	☐	X
ii) Police protection?	☐	☐	☐	X
iii) Schools?	☐	☐	☐	X
iv) Parks?	☐	☐	☐	X
v) Other public facilities including roads?	☐	☐	☐	X

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?

The project area is served by the Marin County Fire Department (CSA 31). The nearest County fire station to the site is located at 7330 Red Hill Road, Petaluma, about 4 miles south of the site. The project roadway improvements and bridge would improve fire suppression equipment access to the undeveloped grasslands to the south of the project site. It would have **no impact** on fire protection needs.

ii) Police protection?

The project site is served by the Marin County Sherriff's Department. The project roadway improvements and bridge would be internal to a residential/agricultural parcel and therefore have **no impact** on the police services demand.

iii) Schools?

The project roadway improvements and bridge would be internal to a residential/agricultural parcel and would not have any potential to generate new park demand or otherwise affect parks. It would therefore have **no impact** on schools.

iv) Parks?

The project roadway improvements and bridge would be internal to a residential/agricultural parcel and would not have any potential to generate park demand or otherwise affect parks. **No impact** would occur.

v) Other public facilities including roads?

The project would improve a private driveway. It would have **no impact** on any public roads.

16 Recreation

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
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?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	X

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?

The project roadway improvements and bridge would be internal to a residential/ agricultural parcel and would not have any potential to generate park or recreational facilities demand, or otherwise affect park or recreational facilities. **No impact** would occur.

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

The project is a small bridge and roadway improvement on a private parcel and does not include or require the construction of any recreational facilities or parks. **No impact** would occur.

17 Transportation

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	X
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
d) Result in inadequate emergency access?	☐	☐	☐	X

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

The project would involve construction of a small bridge and minor roadway improvements on a private residential/agricultural parcel for use by the residents of that parcel, as well as for emergency access. It would have no off-site impacts with respect to the circulation system. Therefore, it would have **no impact** on any element of that system.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The project would consist entirely of internal access improvements on a 10-acre residential/agricultural parcel, for use by the site residents and emergency services providers. Therefore, it would have no potential to affect vehicle miles traveled. **No impact** would occur.

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

The project roadway improvements and bridge would slightly improve the geometry of the existing private driveway on the site. No change in uses would occur on-site. Therefore, the project would have **no impact** on roadway hazards.

d) Result in inadequate emergency access?

Please see Item d), above. The project would improve emergency access within the site. Therefore, **no impact** would occur.

18 Tribal Cultural Resources

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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)?	☐	☐	X	☐
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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	X	☐

Tribal Cultural Resources are defined in CEQA as sites, features, places, cultural landscapes, sacred places, and objects of cultural value to a California Native American tribe listed or eligible for listing on the California Register of Historical Resources or included in a local register of historical resources. Evans & De Shazo, Inc. (EDS) completed a Cultural Resources Study (CRS) in November 2021 in support of environmental review the proposed Project under CEQA.

Sacred Lands File Search

On October 5, 2021, EDS emailed a letter and a map depicting the Property and Project Area to the Native American Heritage Commission (NAHC) to inquire about listed Sacred Sites located within or near to the Property and to obtain a list of local Native American tribes who may have additional information about Sacred Sites, Traditional Cultural Resources, or other properties of traditional religious and cultural importance located within or near to the subject Property. The NAHC works to identify, catalogue,

and protect places of special religious or social significance, graves, and cemeteries of Native Americans per the authority given in PRC § 5097.9. A follow-up email was sent on November 10, 2021.

The NAHC responded by email on November 16, 2021, with information that the record search of the Sacred Lands File was negative for the presence of any Sacred Sites for the Project Area.

On November 22, 2021, EDS sent contact letters and maps to each of the individuals and organizations provided by NAHC inquiring as to whether they had any knowledge of Tribal or cultural resources in or near the Project Area, and if they had any questions about, or concerns with the proposed Project. The following individuals were contacted:

Federal Indians of Graton Rancheria

- Greg Sarris, Chairperson
- Gene Buvelot
- CC: Tribal Heritage Preservation Officer (THPO)

Letter and Project location maps were sent via email on 11/22/2021. A follow-up email was sent on 12/28/2021. No response received to date.

Guidiville Indian Rancheria

- Donald Duncan, Chairperson

Letter and Project location maps sent via email on 11/22/2021. No response received to date.

Wuksache Indian Tribe/Eshom Valley Band

- Kenneth Woodrow, Chairperson

Letter and Project location maps sent via email on 11/22/2021. No response received to date.

Records Search

EDS completed a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) for the Property an area of 0.5-miles surrounding the Property (NWIC File No. 21-0545). No Tribal Cultural Resources were identified within the Property or within 0.5-miles of the Property.

Assembly Bill 52 Native American Consultation

Assembly Bill 52 (AB 52) requires the lead agency to begin consultation with any California Native American tribe that is culturally and traditionally affiliated with the geographic area of the proposed Project if the tribe requested to the lead agency, in writing, to be informed by the lead agency.

On October 26, 2021, Marin County CDA staff sent AB 52 notification letters by email to three tribes that have requested AB 52 notifications for projects occurring in Marin County: 1) Coast Miwok Tribal Council of Marin; 2) the Ione Band of Miwok Indians, and

3) the Federated Indians of Graton Rancheria (FIGR). The Ione Band did not respond. Consultations with the other tribal representatives are summarized below.

Coast Miwok Tribal Council of Marin

On November 2, 2021, the Coast Miwok Tribal Council of Marin responded saying that they were interested in consulting on this project. A site visit was held on December 20, 2021, to provide the Coast Miwok Tribal Council of Marin the opportunity to inspect the Project Area for Tribal Cultural Resources. The Coast Miwok Tribal Council of Marin representatives mentioned the potential for Tribal Cultural Resources on an adjacent part of the property, but no Tribal Cultural Resources were identified within the Project Area, and the Coast Miwok Tribal Council of Marin representatives did not have any specific recommendations for the Project.

Federated Indians of Graton Rancheria

On December 9, 2021, Marin County CDA staff, followed up with FIGR via email to provide them with additional information about the project and request a response to the County's AB 52 notification letter dated October 26, 2021. On December 13, 2021, FIGR sent a letter to Marin County CDA formally requesting consultation on the Project under the provisions of CEQA for the mitigation of potential project impacts to Tribal Cultural Resources. On December 13, 2021, Marin County CDA staff reached out to FIGR in order to schedule a consultation meeting regarding the Project. No response was received. On January 12, 2022, another attempt was made by Marin County CDA staff to consult with FIGR on the project. No response or further information regarding any Tribal Cultural Resources was received by January 14, 2022 and all AB52 consultations were closed at that time.

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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)?

No Tribal Cultural Resources that are listed or eligible for listing on the California Register of Historic Places or local register of historical resources within the Project Area were identified by the NWIC, the NAHC, or in the CRS of the site completed by EDS in November 2021. See the Cultural Resources section for additional information on that study and its findings. However, although unlikely, the ground disturbance related to the proposed Project construction activities could damage previously unrecorded buried Tribal Cultural Resources. As described in the Cultural Resources section of this IS, compliance with Marin County Code section 22.20.040 would assure that this impact would be **less than significant**.

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

No Tribal Cultural Resources that are listed on a local register of historical resources within the Project Area were identified by the NWIC or in the CRS of the site completed by EDS in November 2021. See the Cultural Resources section for additional information on that study and its findings. However, although unlikely, the ground disturbance related to the proposed Project construction activities could damage previously unrecorded buried Tribal Cultural Resources. As described in the Cultural Resources section of this IS, compliance with Marin County Code section 22.20.040 would assure that this impact would be **less than significant**

19 Utilities and Service Systems

Would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	X
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?	☐	☐	☐	X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	X

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

The project would consist of minor roadway improvements and a small bridge internal to an existing residential/agricultural parcel. It would not involve any extension of utilities, nor would it affect utility demand on the site. Therefore, **no impact** would occur with respect to utility infrastructure or demand.

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

The project would consist of minor roadway improvements and a small bridge internal to an existing residential/agricultural parcel. It would not involve any

change in water demand on the site. Therefore, **no impact** would occur with respect to water supplies or demand.

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

The project would consist of minor roadway improvements and a small bridge internal to an existing residential/agricultural parcel. It would not involve any wastewater generation. Therefore, **no impact** would occur with respect to wastewater treatment.

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?

Construction of the project may result in generation of small quantities of construction material wastes over the approximately 2-month construction period. Excess excavated soil would be reused/disposed of on-site. These would be in the range of typical household waste for a single-family home, and therefore have **no impact** on solid waste capacity or infrastructure.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Please see Item d), above. The project would generate minimal quantities of solid wastes. **No impact** would occur.

20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) 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?	☐	☐	☐	X
b) 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?	☐	☐	☐	X
c) 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?	☐	☐	☐	X
d) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	X

a) 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?

The project would improve fire-fighting access to the southern 5 acres of the 10-acre parcel, as well as to adjacent lands south of the tributary creek. Therefore, it would not expose project site residents to increased fire hazards. **No impact** would occur.

b) 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?

The project's roadway improvements and bridge would not exacerbate fire hazards, as the bridge and roadway would be used only by site residents and their guests, and emergency response crews. No increase in fire hazards is anticipated.

c) 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?

As described in the Hydrology section, the project bridge would be designed with two feet of freeboard from the bridge bottom to the 100-year flood level in the tributary. The project also would not increase impervious surfaces on the site. It would have **no impact** to post-fire flooding or instability.

d) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

As discussed in item a), above, the project would improve emergency access for fire protection. Therefore it would have **no adverse impact** to exposing people or structures to wildfire hazards.

21 MANDATORY FINDINGS OF SIGNIFICANCE. Pursuant to Section 15065 of the State EIR Guidelines, a project shall be found to have a significant effect on the environment if any of the following are true:

		Yes	No	Maybe
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?	☐	☐	X
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)?	☐	X	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	X	☐
d)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	X	☐

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?

As discussed in the Biological Resources section of this IS, the proposed project may have the potential to affect sensitive species and habitats, however those impacts would be reduced **to less-than-significant levels with mitigation** measures identified in that section of this IS.

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)?

A review of the Marin County Community Development Agency[11] and Public Works Department[12] current project lists identified no nearby project with the potential for overlapping cumulative impacts with those of the proposed project. Similarly, a review of Sonoma County Planning Department current project list found no nearby proposed projects[13]. Therefore, **no cumulative impacts** would occur.

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

As described in the Air Quality, Noise, and Health and safety section of the IS, there is no potential for the proposed project to adversely affect humans.

d) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?

As described in this IS, the proposed project would have less-than-significant (with mitigation) short term construction impacts but no long-term impacts to the environment.

[11] https://www.marincounty.org/depts/cd/divisions/planning/projects, accessed October 26, 2021

[12] https://www.marincounty.org/depts/pw/divisions/projects/current-projects, accessed October 26, 2021

[13] https://sonomacounty.ca.gov/PRMD/Planning/Project-Review/, accessed October 26, 2021

V. PROJECT SPONSOR'S INCORPORATION OF MITIGATION MEASURES:

Acting on behalf of the project sponsor or the authorized agent of the project sponsor, I (undersigned) have reviewed the Initial Study for the Dimeling Gee Design Review and have particularly reviewed the mitigation measures and monitoring programs identified herein. I accept the findings of the Initial Study, including the recommended mitigation measures, and hereby agree to modify the proposed project applications now on file with Marin County to include and incorporate all mitigation measures and monitoring programs set out in this Initial Study.

_____

(Project Sponsor's Name or Representative)

TIMOTHY GEE

(Project Sponsor's Name or Representative)

_____ _____

(Project Sponsor's signature) Date

2/7/2022

(Project Sponsor's signature) Date

VIII. DETERMINATION: (Completed by Marin County Environmental Planning Manager). Pursuant to Sections 15081 and 15070 of the State Guidelines, the forgoing Initial Study evaluation, and the entire administrative record for the project:

[ ] I find that the proposed project WILL NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

[X] 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 the mitigation measures described on an attached sheet have been added to the project. 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.

Rachel Reid — 2/7/2022

Rachel Reid, Environmental Planning Manager — Date

Dimeling Gee Design Review

DOCUMENTS INCORPORATED BY REFERENCE

The following is a list of relevant information sources that have been incorporated by reference into the foregoing Initial Study pursuant to Section 15150 of the State CEQA Guidelines. These documents are both a matter of public record and available for public inspection either online or at the Planning Division office of the Marin County Community Development Agency (CDA), Suite 308, 3501 Civic Center Drive, San Rafael. The information incorporated from these documents shall be considered to be set forth fully in the Initial Study.

1. Dimeling Gee Design Review Project Plans

2. Marin Countywide Plan, CDA - Planning Division (2007), https://www.marincounty.org/~/media/files/departments/cd/planning/currentplanning/development-code-amendments-2017/devcode2016_artii_prd.pdf?la=en

3. Marin County Development Code, Title 22, CDA - Planning Division https://www.marincounty.org/~/media/files/departments/cd/planning/currentplanning/development-code-amendments-2017/devcode2016_artii_prd.pdf?la=en

4. Marin County Development Standards, Title 24, Marin County Department of Public Works - Land Use & Water Resources Division

5. Soil Survey of Marin County, USDA Soil Conservation Service (1985)

6. Flood Insurance Rate Map Series of Marin County, California, prepared by the Federal Emergency Management Agency

7. Association of Bay Area Governments (ABAG), 2013. Marin County Earthquake Hazard Map. Available online: http://gis.abag.ca.gov/website/liquefactionsusceptibility/index.html

8. Bay Area Air Quality Management District (BAAQMD). *California Environmental Quality Act Air Quality Guidelines*. May 2017.

9. BAAQMD. 2017 Clean Air Plan: Spare the Air, Cool the Climate. April 2017.

10. BAAQMD, 2014. Air Quality Standards and Attainment Status, obtained on-line (http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm).

11. BAAQMD. Air Quality Standards and Attainment Status. http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status

12. BAAQMD. Air Quality Summary Reports. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

13. BAAQMD. Permitted Sources Risk and Hazards Map. https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

14. Bauer Associates, Inc., Report, Geotechnical Investigation, Planned Bridge 135 Wilson Hill Road Petaluma, California. May 8, 2020

15. California Air Resources Board (CARB). Summary: Diesel Particulate Matter Health Impacts. https://ww2.arb.ca.gov/index.php/resources/summary-diesel-particulate-matter-health-impacts

16. California Air Pollution Control Officers Association (CAPCOA). *California Emissions Estimator Model (CalEEMod) User's Guide*. http://www.caleemod.com/

17. California Department of Conservation, (CDC), 2014. Marin County Tsunami Inundation Maps, available online: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Marin/Pages/Marin.aspx.

18. California Department of Conservation, Marin County Farmland Maps, https://maps.conservation.ca.gov/DLRP/CIFF/ - accessed October 21, 2021

19. California Department of Toxic Substances Control (DTSC), 2021. https://www.envirostor.dtsc.ca.gov/public/map/?global_id=80001855, accessed October 22, 2021

20. CSW/Stuber-Stroeh Engineering Group, Inc., Hydraulic Study for Gee Bridge Project, Wilson Hill Road, Petaluma, APN 106-170-22, August 31, 2020.

21. Evans and De Shazo, Results of a Cultural Resources Study for the Proposed Gee Bridge Project, 135 Wilson Hill Road, Petaluma, Marin County, California. November 30, 2021

22. Federal Highway Administration (FHWA), Roadway Construction Noise Model User's Guide, January 2006.

23. Federal Transit Agency (FTA), Transit Noise and Vibration Impact Assessment, May 2006.

24. Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February 2015.

25. Mineral Resources, CDA - Planning Division (1987)

26. County of Marin, 2014. Marin Map, Hazard, Fire Hazard Severity Zone. Available online: http://www.marinmap.org/Geocortex/Essentials/Marinmap/Web/Viewer.aspx?Site=MMDataViewer.

27. County of Marin. *Marin County Climate Action Plan* 2015 Update. July 2015

28. County of Marin, Code of Ordinances, (Chapter 6.70 – Loud and Unnecessary Noises),

https://library.municode.com/ca/marin_county/codes/code_of_ordinances?nodeId=TIT6PUPESAMO_CH6.70LOUNNO

29. Marin County Sheriff Department, official website, available online at http://www.marinsheriff.org/.

Appendix A: Biological Resources

SPECIAL-STATUS SPECIES IN PROJECT REGION

TABLE 1. Special-Status Wildlife Species Documented from the Project Region

FT – Federal Threatened; FE – Federal Endangered; ST – State Threatened; SE – State Endangered; SC – State Candidate; SSC – CDFW Species Special Concern; FP – CDFW Fully Protected; WL – CDFW Watch List; BCC – USFWS Birds of Conservation Concern

Common Name	*Scientific Name*	Federal Status	State Status	CDFW Status	Habitat Description	Potential to Occur On Project Site
Amphibians						
foothill yellow-legged frog (northwest/north coast clade)	*Rana boylii*	None	None	SSC	Found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	**Low Potential.** Intermittent creek may provide seasonal habitat for dispersing adults.
California red-legged frog	*Rana draytonii*	Threatened	None	SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds. Prefers shorelines with extensive vegetation. Requires permanent or nearly permanent pools for larval development.	**Low Potential.** Intermittent creek may provide seasonal habitat for dispersing adults.
Birds						
golden eagle	*Aquila chrysaetos*	None	None	FP ; WL	Open and semi-open country with native vegetation, primarily in mountains, canyonlands, cliffs, and bluffs. Nest on cliffs and steep areas in grassland, chaparral, shrubland, and forest.	**Not expected.** Site does not support cliffs or steep grasslands, and has very few large trees.
burrowing owl	*Athene cunicularia*	None	None	SSC	Open, treeless areas with low, sparse vegetation in grasslands, deserts, pastures, agricultural fields, and more. Associated with mammal burrows, where they also nest.	**Not expected.** Site does not supports sufficient mammal burrows.
oak titmouse	*Baeolophus inornatus*	None	None	-	Prefers open woodlands of oak and pine. Sometimes forages and breeds in riparian areas, and ventures into residential areas. Roosts in cavity in tree or snag.	**Potential**. Site does support large oaks and is surrounded by dense stands of oaks.
wrentit	*Chamaea fasciata*	-	-	BCC	Inhabits costal scrub and chaparral habitats where they forage on small insects. Nest in oak woodlands and mixed hardwoods in close proximity to foraging habitat.	**Not expected**. Site does support some large oaks, but lacks dense costal scrub and chaparral habitat
olive-sided flycatcher	*Contopus cooperi*	-	-	BCC	Typically found in coniferous forest where they forage on flying insects and nest within trees. Nest sites are selected to be in close proximity to water.	**Not expected.** Site does not support coniferous trees preferred for nesting.

Common Name	*Scientific Name*	Federal Status	State Status	CDFW Status	Habitat Description	Potential to Occur On Project Site
common yellowthroat	*Geothlypis trichas sinuosa*	None	None	SSC	Tied to the distribution of suitable freshwater and salt marshes with nearby willow thickets. Nests in marshy areas that are usually higher off the ground	**Not expected.** Site does not support marsh habitat.
Nuttall's woodpecker	*Picoides nuttallii*	-	-	BCC	Found in oak woodlands and riparian forest throughout California where they forage for insects and nest in dead trucks or limbs of willows, cottonwoods, sycamores, oaks, or alders.	**Potential.** Site supports some large oaks which provide suitable foraging and nesting habitat.
Allen's hummingbird	*Selasphorus sasin*	-	-	BCC	Breed within a narrow strip of costal scrub, costal forest, and chaparral habitats along the west coast of California where they feed on nectar of flowering costal scrub and chapparal vegetation.	**Not expected.** Site does not support costal scrub, costal forest, and chaparral habitats.
Mollusks and Crustaceans						
California freshwater shrimp	*Syncaris pacifica*	Endangered	Endangered	-	Inhabit small, perennial coastal streams at low elevation and low gradients. During the winter, found in undercut banks with exposed root systems or dense, overhanging vegetation.	**Not expected.** Ephemeral creek unlikely to provide sufficient habitat.
Fish						
coho salmon - central California coast ESU	*Oncorhynchus kisutch pop. 4*	Endangered	Endangered	-	Migrate between ocean and freshwater environments, hatch and rear in freshwater environments, migrate to ocean for maturation, return to natal freshwater streams for spawning	**Not expected.** Considered extirpated from the San Francisco Estuary and its tributaries.
steelhead - northern California DPS	*Oncorhynchus mykiss irideus pop. 16*	Threatened	None	-	Anadromous, originating below impassable barriers in California coastal river basins from Redwood Creek to and including the Gualala River.	**Not expected.** Intermittent creek unlikely to support migration and spawning
steelhead - central California coast DPS	*Oncorhynchus mykiss irideus pop. 8*	Threatened	None	-	Anadromous, migrates through San Francisco Bay spawns in coastal rivers and streams.	**Not expected.** Intermittent creek unlikely to support migration and spawning
chinook salmon - California coastal ESU	*Oncorhynchus tshawytscha pop. 17*	Threatened	None	-	From rivers and streams south of the Klamath River to the Russian River.	**Not expected.** Intermittent creek unlikely to support migration and spawning
Mammals						

Common Name	*Scientific Name*	Federal Status	State Status	CDFW Status	Habitat Description	Potential to Occur On Project Site
salt-marsh harvest mouse	*Reithrodontomys raviventris*	Endangered	Endangered	FP	Habitat consists of salt and brackish marshes.	**Not expected.** No salt or brackish marsh habitat present.
American badger	*Taxidea taxus*	None	None	SSC	Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow.	**Not expected.** Site does not supports sufficient mammal burrows.
Reptiles						
western pond turtle	*Emys marmorata*	None	None	SSC	Permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, unlined irrigation canals, and reservoirs.	**Low Potential**. Intermittent creek may provide seasonal habitat for dispersing adults.
green sea turtle	*Chelonia mydas*	Threatened	-	-	Often found in open ocean, return to beaches to breed	**Not expected.** No suitable habitat present.

TABLE 2. Special-status Plant Species Documented from the Project Region

FT – Federal Threatened; FE – Federal Endangered; ST – State Threatened; SE – State Endangered; SC – State Candidate; SSC – CDFW Species Special Concern; FP – CDFW Fully Protected; WL – CDFW Watch List; LC – IUCN Least Concern; NT – IUCN Near Threatened; BLM:S – Bureau of Land Management Sensitive; CDF:S – California Department of Forestry and Fire Protection Sensitive; USFS:S – U.S. Forest Service Sensitive; CNPS 1B – CA Native Plant Society – Plants Rare, Threatened, or Endangered in CA and Elsewhere; CNPS 2B – CA Native Plant Society – Plants Rare, Threatened, or Endangered in CA but More Common Elsewhere; CNPS 3 – CA Native Plant Society – Review List: Plants About Which More Information is Needed; CI – Critically Imperiled **Species highlighted in gray have potential or low potential to occur on the Project Site

Common Name	*Scientific Name*	Federal Status	State Status	CA Rare Plant Rank	Habitat Description	Potential to Occur on Project Site
Plants						
pink sand-verbena	*Abronia umbellata var. breviflora*	None	None	1B.1	Coastal dunes	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Blasdale's bent grass	*Agrostis blasdalei*	None	None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Franciscan onion	*Allium peninsulare var. franciscanum*	None	None	1B.2	Cismontane woodland, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sonoma alopecurus	*Alopecurus aequalis var. sonomensis*	FE	None	1B.1	Marshes and swamps, Riparian scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Napa false indigo	*Amorpha californica var. napensis*	None	None	1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
bent-flowered fiddleneck	*Amsinckia lunaris*	None	None	1B.2	Cismontane woodland, Coastal bluff scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
coast rockcress	*Arabis blepharophylla*	None	None	4.3	Broadleafed upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mt. Tamalpais manzanita	*Arctostaphylos montana ssp. montana*	None	None	1B.3	Chaparral, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

Marin manzanita	*Arctostaphylos virgata*	None	None	1B.2	Broadleafed upland forest, Chaparral, Closed-cone coniferous forest, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
coastal marsh milk-vetch	*Astragalus pycnostachyus var. pycnostachyus*	None	None	1B.2	Coastal dunes, Coastal scrub, Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
alkali milk-vetch	*Astragalus tener var. tener*	None	None	1B.2	Playas, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sonoma sunshine	*Blennosperma bakeri*	FE	SE	1B.1	Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
narrow-anthered brodiaea	*Brodiaea leptandra*	None	None	1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Bolander's reed grass	*Calamagrostis bolanderi*	None	None	4.2	Bogs and fens, Broadleafed upland forest, Closed-cone coniferous forest, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
serpentine reed grass	*Calamagrostis ophitidis*	None	None	4.3	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Oakland star-tulip	*Calochortus umbellatus*	None	None	4.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
swamp harebell	*Campanula californica*	None	None	1B.2	Bogs and fens, Closed-cone coniferous forest, Coastal prairie, Marshes and swamps, Meadows and seeps, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
seaside bittercress	*Cardamine angulata*	None	None	2B.2	Lower montane coniferous forest, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Lyngbye's sedge	*Carex lyngbyei*	None	None	2B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

Tiburon paintbrush	*Castilleja affinis var. neglecta*	FE	ST	1B.2	Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
johnny-nip	*Castilleja ambigua var. ambigua*	None	None	4.2	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Humboldt Bay owl's-clover	*Castilleja ambigua var. humboldtiensis*	None	None	1B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Nicasio ceanothus	*Ceanothus decornutus*	None	None	1B.2	Chaparral	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
glory brush	*Ceanothus gloriosus var. exaltatus*	None	None	4.3	Chaparral	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Point Reyes ceanothus	*Ceanothus gloriosus var. gloriosus*	None	None	4.3	Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mt. Vision ceanothus	*Ceanothus gloriosus var. porrectus*	None	None	1B.3	Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mason's ceanothus	*Ceanothus masonii*	None	CR	1B.2	Chaparral	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sonoma ceanothus	*Ceanothus sonomensis*	None	None	1B.2	Chaparral	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
pappose tarplant	*Centromadia parryi ssp. parryi*	None	None	1B.2	Chaparral, Coastal prairie, Marshes and swamps, Meadows and seeps, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Point Reyes salty bird's-beak	*Chloropyron maritimum ssp. palustre*	None	None	1B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

soft salty bird's-beak	*Chloropyron molle ssp. molle*	FE	CR	1B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sonoma spineflower	*Chorizanthe valida*	FE	SE	1B.1	Coastal prairie	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Bolander's water-hemlock	*Cicuta maculata var. bolanderi*	None	None	2B.1	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Franciscan thistle	*Cirsium andrewsii*	None	None	1B.2	Broadleafed upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mt. Tamalpais thistle	*Cirsium hydrophilum var. vaseyi*	None	None	1B.2	Broadleafed upland forest, Chaparral, Meadows and seeps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Baker's larkspur	*Delphinium bakeri*	FE	SE	1B.1	Broadleafed upland forest, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
golden larkspur	*Delphinium luteum*	FE	CR	1B.1	Chaparral, Coastal prairie, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
western leatherwood	*Dirca occidentalis*	None	None	1B.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest, North Coast coniferous forest, Riparian forest, Riparian woodland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
dwarf downingia	*Downingia pusilla*	None	None	2B.2	Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
small spikerush	*Eleocharis parvula*	None	None	4.3	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
California bottle-brush grass	*Elymus californicus*	None	None	4.3	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest, Riparian woodland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

Koch's cord moss	*Entosthodon kochii*	None	None	1B.3	Cismontane woodland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
streamside daisy	*Erigeron biolettii*	None	None	3	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Tiburon buckwheat	*Eriogonum luteolum var. caninum*	None	None	1B.2	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
bluff wallflower	*Erysimum concinnum*	None	None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Marin checker lily	*Fritillaria lanceolata var. tristulis*	None	None	1B.1	Coastal bluff scrub, Coastal prairie, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
fragrant fritillary	*Fritillaria liliacea*	None	None	1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
blue coast gilia	*Gilia capitata ssp. chamissonis*	None	None	1B.1	Coastal dunes, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
woolly-headed gilia	*Gilia capitata ssp. tomentosa*	None	None	1B.1	Coastal bluff scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
San Francisco gumplant	*Grindelia hirsutula var. maritima*	None	None	3.2	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
congested-headed hayfield tarplant	*Hemizonia congesta ssp. congesta*	None	None	1B.2	Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Marin western flax	*Hesperolinon congestum*	FT	ST	1B.1	Chaparral, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

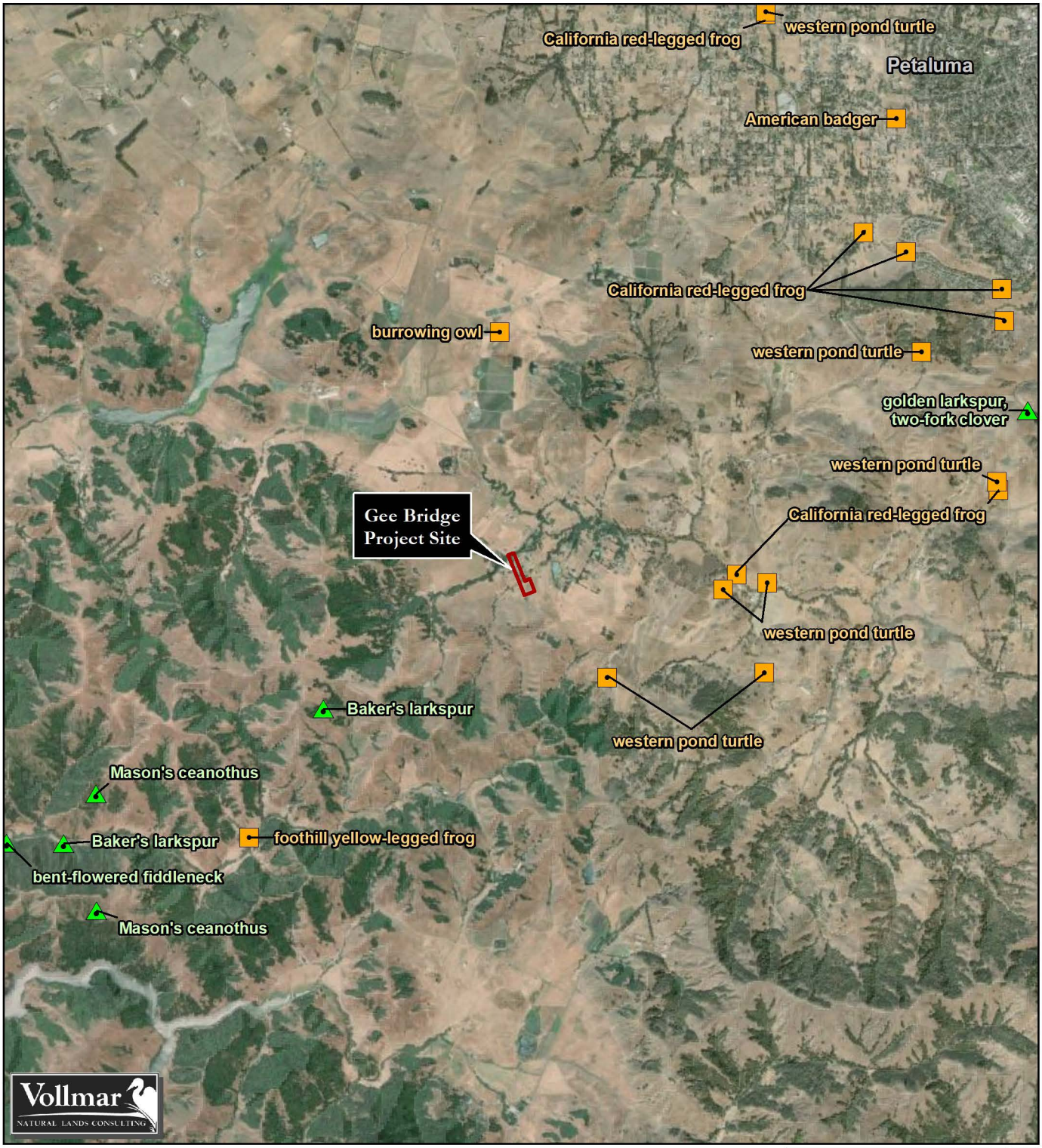
water star-grass	*Heteranthera dubia*	None	None	2B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Point Reyes horkelia	*Horkelia marinensis*	None	None	1B.2	Coastal dunes, Coastal prairie, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
harlequin lotus	*Hosackia gracilis*	None	None	4.2	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
island tube lichen	*Hypogymnia schizidiata*	None	None	1B.3	Chaparral, Closed-cone coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
coast iris	*Iris longipetala*	None	None	4.2	Coastal prairie, Lower montane coniferous forest, Meadows and seeps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Burke's goldfields	*Lasthenia burkei*	FE	SE	1B.1	Meadows and seeps, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
perennial goldfields	*Lasthenia californica ssp. macrantha*	None	None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Contra Costa goldfields	*Lasthenia conjugens*	FE	None	1B.1	Cismontane woodland, Playas, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
legenere	*Legenere limosa*	None	None	1B.1	Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
bristly leptosiphon	*Leptosiphon acicularis*	None	None	4.2	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

large-flowered leptosiphon	*Leptosiphon grandiflorus*	None	None	4.2	Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Jepson's leptosiphon	*Leptosiphon jepsonii*	None	None	1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
woolly-headed lessingia	*Lessingia hololeuca*	None	None	3	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Tamalpais lessingia	*Lessingia micradenia var. micradenia*	None	None	1B.2	Chaparral, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mason's lilaeopsis	*Lilaeopsis masonii*	None	CR	1B.1	Marshes and swamps, Riparian scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
coast lily	*Lilium maritimum*	None	None	1B.1	Broadleafed upland forest, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Marshes and swamps, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Pitkin Marsh lily	*Lilium pardalinum ssp. pitkinense*	FE	SE	1B.1	Cismontane woodland, Marshes and swamps, Meadows and seeps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sebastopol meadowfoam	*Limnanthes vinculans*	FE	SE	1B.1	Meadows and seeps, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mt. Diablo cottonweed	*Micropus amphibolus*	None	None	3.2	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
marsh microseris	*Microseris paludosa*	None	None	1B.2	Cismontane woodland, Closed-cone coniferous forest, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
cotula navarretia	*Navarretia cotulifolia*	None	None	4.2	Chaparral, Cismontane woodland, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

Baker's navarretia	*Navarretia leucocephala ssp. bakeri*	None	None	1B.1	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Marin County navarretia	*Navarretia rosulata*	None	None	1B.2	Chaparral, Closed-cone coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Gairdner's yampah	*Perideridia gairdneri ssp. gairdneri*	None	None	4.2	Broadleafed upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
North Coast phacelia	*Phacelia insularis var. continentis*	None	None	1B.2	Coastal bluff scrub, Coastal dunes	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Petaluma popcornflower	*Plagiobothrys mollis var. vestitus*	None	None	1A	Marshes and swamps, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
North Coast semaphore grass	*Pleuropogon hooverianus*	None	ST	1B.1	Broadleafed upland forest, Meadows and seeps, North Coast coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
nodding semaphore grass	*Pleuropogon refractus*	None	None	4.2	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest, Riparian forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Marin knotweed	*Polygonum marinense*	None	None	3.1	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Cunningham Marsh cinquefoil	*Potentilla uliginosa*	None	None	1A	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Tamalpais oak	*Quercus parvula var. tamalpaisensis*	None	None	1B.3	Lower montane coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Lobb's aquatic buttercup	*Ranunculus lobbii*	None	None	4.2	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

California beaked-rush	*Rhynchospora californica*	None	None	1B.1	Bogs and fens, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
round-headed beaked-rush	*Rhynchospora globularis*	None	None	2B.1	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Sanford's arrowhead	*Sagittaria sanfordii*	None	None	1B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Point Reyes checkerbloom	*Sidalcea calycosa ssp. rhizomata*	None	None	1B.2	Marshes and swamps	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Marin checkerbloom	*Sidalcea hickmanii ssp. viridis*	None	None	1B.1	Chaparral	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mount Burdell jewelflower	*Streptanthus anomalus*	None	None	1B.1	Cismontane woodland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Tamalpais jewelflower	*Streptanthus batrachopus*	None	None	1B.3	Chaparral, Closed-cone coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Mt. Tamalpais bristly jewelflower	*Streptanthus glandulosus ssp. pulchellus*	None	None	1B.2	Chaparral, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
two-fork clover	*Trifolium amoenum*	FE	None	1B.1	Coastal bluff scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
Santa Cruz clover	*Trifolium buckwestiorum*	None	None	1B.1	Broadleafed upland forest, Cismontane woodland, Coastal prairie	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
saline clover	*Trifolium hydrophilum*	None	None	1B.2	Marshes and swamps, Valley and foothill grassland, Vernal pools	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.

Pacific Grove clover	*Trifolium polyodon*	None	CR	1B.1	Closed-cone coniferous forest, Coastal prairie, Meadows and seeps, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
San Francisco owl's-clover	*Triphysaria floribunda*	None	None	1B.2	Coastal prairie, Coastal scrub, Valley and foothill grassland	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
coastal triquetrella	*Triquetrella californica*	None	None	1B.2	Coastal bluff scrub, Coastal scrub	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.
dark-mouthed triteleia	*Triteleia lugens*	None	None	4.3	Broadleafed upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest	**Not expected.** Site consist of disturbed ruderal grassland, oak, and riparian habitats.



Legend

- Gee Bridge Project Site
- Special-status Plant Occurrence
- Special-status Animal Occurrence

FIGURE 1
Special-status Species Map

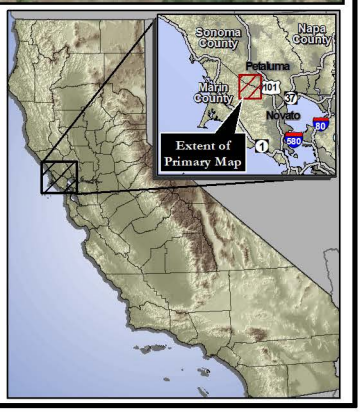
Gee Bridge Project
Marin County, California

N
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1:63,360
(1 inch = 1 mile at letter layout)

0 0.5 1 2 Km

0 0.25 0.5 1 Mi



Data Sources: USGS, Various | Marin Co., 2014 | CNDDB, 09/2021
ESRI/DigitalGlobe (aerial imagery), 2019 | GAP, 1998
GIS/Cartography by: K. Chinn, Nov. 2021
Map File: 528_CNDDB_A-P_2021-1123.mxd



Legend

Gee Bridge Project Site

FIGURE 2
Site Map

Gee Bridge Project
Marin County, California

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W E
S

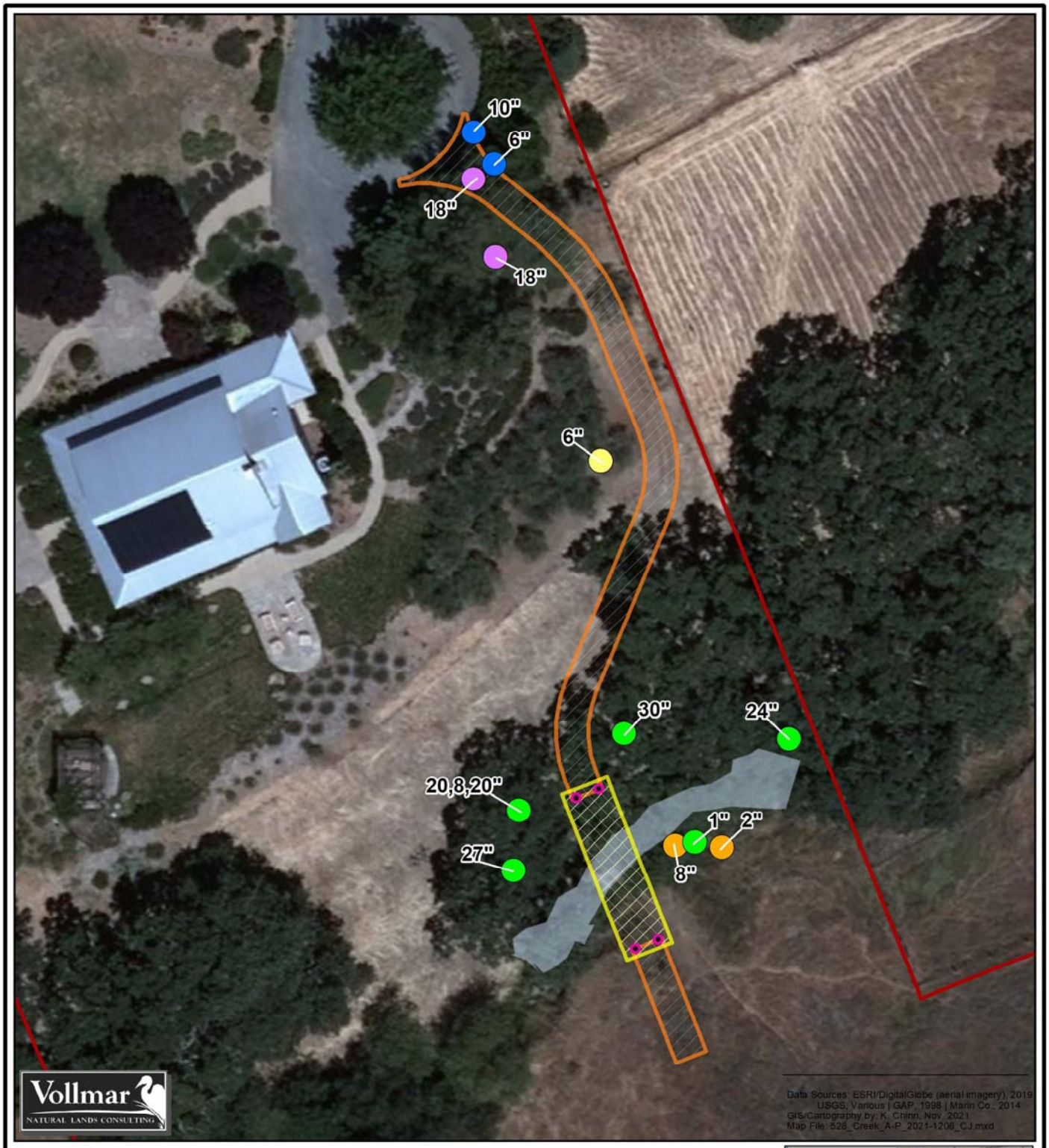
1:2,500
(1 inch = 208 feet at letter layout)

0 25 50 100 Meters

0 125 250 500 Feet



Data Sources: ESRI/DigitalGlobe (aerial imagery), 2019
USGS, Various | GAP, 1998 | Marin Co., 2014
GIS/Cartography by: K. Chinn, Nov. 2021
Map File: 528_Site_A-P_2021-1123.mxd



Legend

- Gee Bridge Project Site
- Road Extension
- Bridge
- Bridge Footings
- Ordinary High Water Mark

Tree (dbh)

- Aleppo Pine
- Quercus lobata
- Salix laevigata
- Cedar
- Olive

FIGURE 3
Bio Resources Map

Gee Bridge Project
Marin County, California

N
W E
S

1:425
(1 inch = 38 feet at letter layout)

0 2.5 5 10 Meters
0 12.5 25 50 Feet

