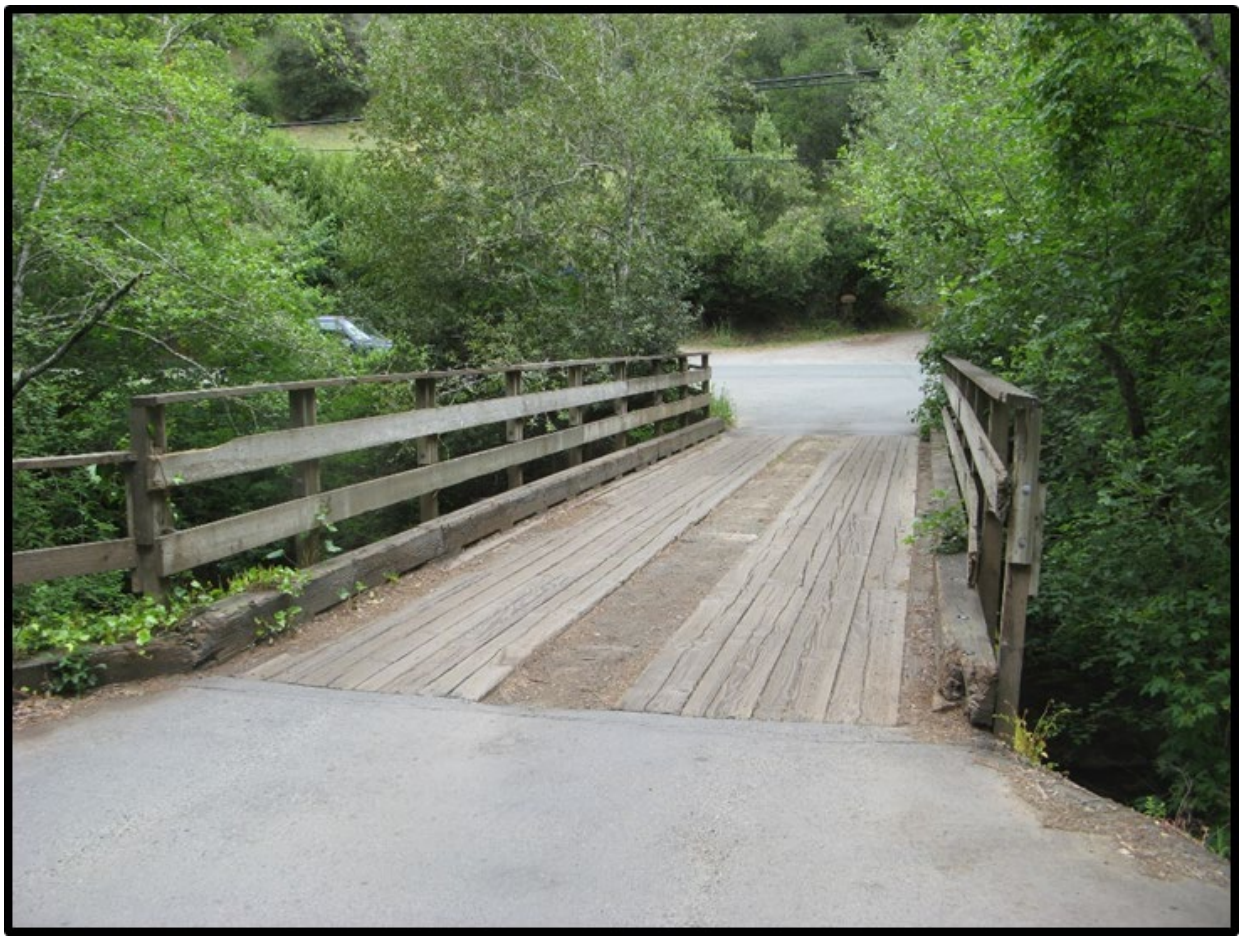
Mountain View Road Over San Geronimo Creek Bridge Replacement Project



Initial Study/Mitigated Negative Declaration

Prepared for Marin County

August 2020

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NEGATIVE DECLARATION

Marin County

Environmental Coordination and 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: Mountain View Road Bridge Replacement Project

2. Location and Description:

   The proposed project would replace the existing bridge over San Geronimo Creek with a new structure accommodating one 12-foot-wide lane with 2-foot-wide shoulders and bridge railings, resulting in a bridge width of approximately 20 feet. This project is located at 7190 Sir Francis Drake Blvd, Lagunitas, CA 94938 along Mountain View Road just off of Sir Francis Drake Boulevard in the community of Lagunitas/Forest Knolls.

3. Project Sponsor: Marin County Department of Public Works

4. 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: August 4, 2020

Environmental Planning Manager

Based on the attached Initial Study and the comments received during the public comment period, a Negative Declaration is granted.

_____ Date: June 30, 2021

Eric Miller

Principal Engineer, Department of Public Works

1. Mitigation Measures:

   ☐ No potential adverse impacts were identified; 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 above effects have been incorporated into the project and are embodied in conditions of approval recommended by the Marin County Department of Public Works.

   Other conditions of approval in support of these measures may also be advanced.

2. Preparation:

   This Negative Declaration was prepared by Circlepoint on behalf of the Marin County Department of Public Works. Copies may be obtained at the address listed below.

   Marin County Department of Public Works
   3501 Civic Center Drive, Suite 304
   San Rafael, CA 94903
   (415) 473-6528
   Monday-Friday, 8:00 a.m. to 5:00 p.m.

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List of Appendices

I. PROJECT BACKGROUND

A. Project Sponsor's Name and Address:

Marin County Department of Public Works
3501 Civic Center Dr., Suite 304
San Rafael, CA 94903

B. Lead Agency Name and Address:

Marin County Department of Public Works
3501 Civic Center Dr., Suite 304
San Rafael, CA 94903

C. Agency Contact:

Philip A. Buckley, Senior Civil Engineer
(415) 473-7292
pbuckley@marincounty.org

II. Project Description

A. Project Title:

Mountain View Road Bridge Replacement Project (Project ID BRLO-5927 (094))

B. Project Location:

7190 Sir Francis Drake Blvd, Lagunitas, CA 94938 along Mountain View Road just off of Sir Francis Drake Boulevard in the community of Lagunitas/Forest Knolls.

C. Assessor's Parcel Numbers:

170-012-12, 170-031-04, 170-023-03, 170-022-01, 170-021-09, 168-192-20, 168-192-33, 168-192-36, 168-192-31, 170-011-20, 170-011-16

D. Surrounding General Plan Designation:

General Commercial/Mixed Use, Single-family (1-2 units/acre)

E. Surrounding Zoning:

R1-B3 Residential Single Family, H-1 Limited Roadside Business

Proposed Project

Mountain View Road is a one-lane, 11-foot-wide, local road in unincorporated Marin County that serves two-way traffic in a semi-rural residential community (**Figure 1**). The existing Mountain View Bridge (bridge), was constructed in 1962 and is a three-span steel railroad car frame structure with timberdeck runners. The existing bridge is approximately 51 feet long and 11 feet wide and does not meet American Association of State Highway and Transportation Officials (AASHTO) standards due to its narrow width (ASSHTO requires at least a 14-foot width for a bridge of this size and type). The existing steel railroad cars that make up the bridge are rusting and have experienced minor structural section loss. Additionally, the grouted riprap on the north bank is undermined along its full length.

The proposed project would replace the existing bridge over San Geronimo Creek with a new structure accommodating one 12-foot-wide lane with 2-foot-wide shoulders and bridge railings, resulting in a bridge width of approximately 20 feet. The new structure would be a 70-foot-long, single-span, precast, prestressed concrete slab unit bridge. The alignment would shift to the east by approximately 7 feet. The roadway profile of the bridge would be raised approximately 4 feet to clear the 100-year flood elevation. The project improvements would remain within California Department of Transportation (Caltrans) and Marin County's right-of-way (ROW), and permanent ROW acquisitions are not anticipated. Temporary construction easements would be required from several parcels in order to reconstruct driveways, provide access to the creek, and provide adequate storage and staging areas.

Roadway Repavement

To account for the bridge's new 4-foot height increase, the roadway profiles of the approaches on Sir Francis Drake Boulevard, Mountain View Road, and Corona Avenue would be raised and repaved. Construction of the roadway approaches would involve the removal of existing pavement and the placement of fill material, aggregate base, and hot mix asphalt pavement.

Retaining Walls

The project's two retaining walls would be soldier pile walls with precast concrete lagging supported by steel W beams. Each retaining wall would begin at an abutment wingwall and decrease in elevation with each pile. The left retaining wall on Mountain View Road would be 94 feet long and consist of 16 piles, and the right retaining wall on Corona Avenue would be 44 feet long and consist of eight piles. The retaining walls are to be constructed concurrently with the proposed bridge. Piles adjacent to the abutment wingwalls would be installed prior to wingwall placement. The remaining piles and timber lagging may be installed prior to, during, or after the existing bridge demolition and new bridge construction. The retaining walls would require temporary closures of Mountain View Road and would need to be constructed in the same closure window required to demolish and replace the existing bridge and construct the replacement bridge.

Scour Countermeasures

Scour countermeasures consisting of vegetated Rock Slope Protection (RSP) are anticipated to be placed in front of both abutments and in front of the retaining walls within the high-water elevation of the creek channel. This may be done using a backhoe or other smaller construction equipment.

Storm Drain Reconstruction

An existing storm drain culvert running under Corona Avenue east would be replaced. Two storm drainpipe outlets into the creek would also be replaced and one new storm drainpipe outlet into the creek would be installed concurrent with the bridge construction. One would be placed under Corona Avenue east and two drainpipes would be placed under Sir Francis Drake on either side of Mountain View Road.

Utility Removal and Relocation

Existing overhead electric and communication lines, two utility poles to the northeast and southeast of the bridge, and a fire hydrant located off the southeast corner of the bridge would be relocated, as close as possible to the original location, as part of this project. Relocation of these utilities would be conducted by utility providers. In addition, an existing waterline that is supported on the existing bridge would be removed and relocated onto the proposed bridge.

Temporary Creek Diversion

Construction activities within the banks of San Geronimo Creek would be performed between June and October, when there is little or no precipitation and when stream flow is lowest. Work within the creek channel would be necessary to remove the existing piers and abutments and to construct the new abutments. If water is present in the channel, a temporary creek diversion during the construction window would dewater the work area within the creek bed. Impacted waters within the work area would either be treated per the requirements of a Storm Water Pollution Prevention Plan (SWPPP) prepared for the project or disposed of per Regional Water Quality Control Board (RWQCB) requirements. Activities within the channel would commence only after appropriate dewatering and storm water quality Best Management Practices (BMPs) are in place. Any water intake structure would be installed, operated, and maintained in accordance with current National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW) criteria or as developed in cooperation with NMFS, USFWS, and CDFW to accommodate site-specific conditions. Diverted flows would be returned to the stream channel immediately downstream of the work area. Upon project completion, the diversion materials would be removed from the channel.

Revegetation

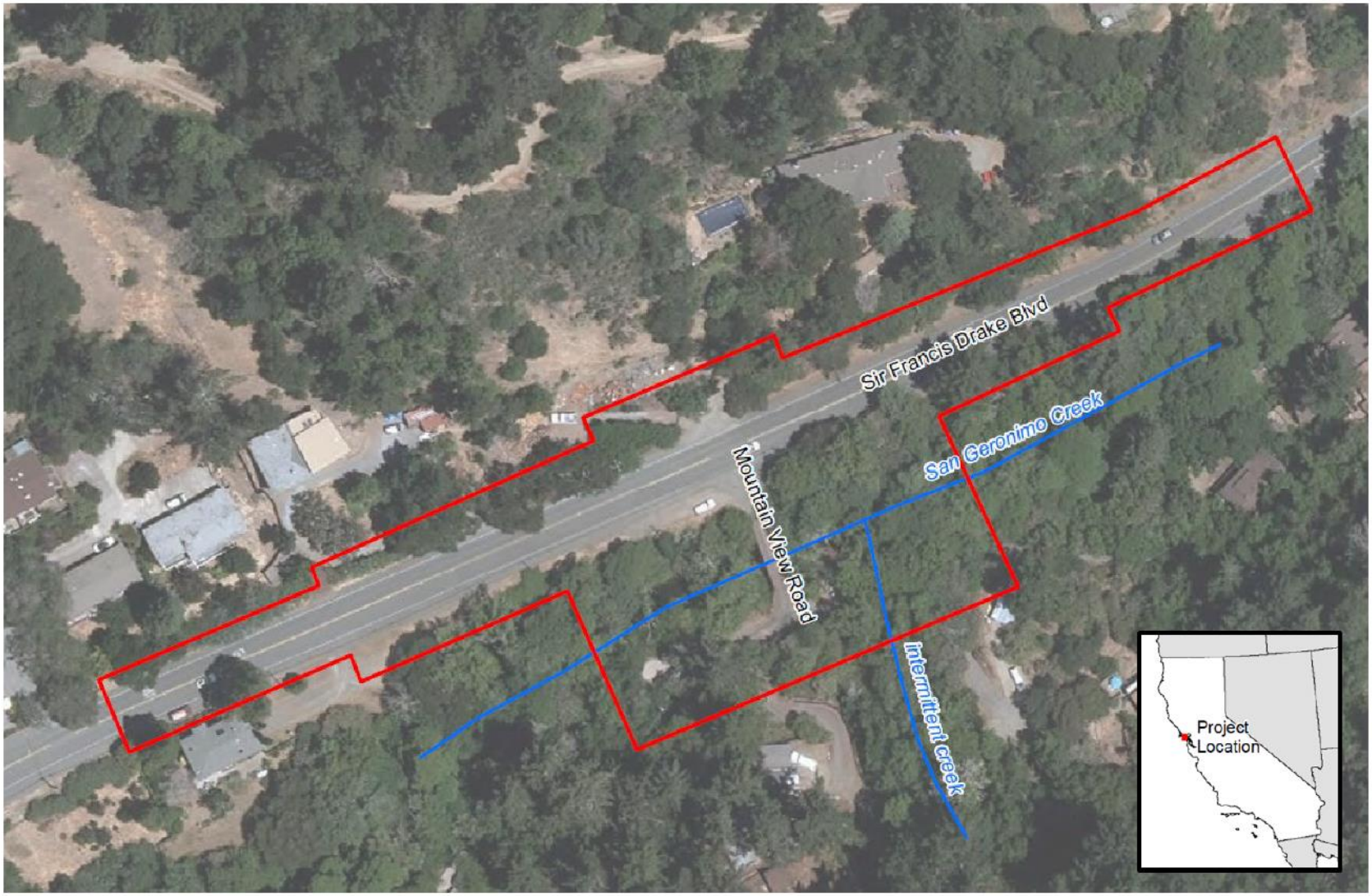
In areas of temporary construction impact, appropriate replacement native vegetation would be planted in areas where they would not affect roadway safety. The old alignment would be remediated and replanted with appropriate native vegetation/trees. Vegetated RSP would be placed in front of abutments, wingwalls, and retaining walls. Specifications regarding vegetation and tree replacement would be provided during the design phase of the project (estimated to be completed in 2020).

Construction Staging and Schedule

Sir Francis Drake Boulevard is expected to remain open to traffic throughout construction. During construction, two lanes of traffic would be provided along Sir Francis Drake Boulevard. A temporary shift in the alignment along Sir Francis Drake Boulevard is expected in order to provide contractor staging areas along the south shoulder of Sir Francis Drake Boulevard near the project site. The shift is anticipated to be approximately 6 feet to the north extending approximately 300 to 400 feet in both directions, with temporary k-railing running along the south shoulder to separate the staging area from traffic. Repavement on Sir Francis Drake Boulevard is expected to take a maximum of two weeks, and one-way traffic control may be temporarily needed.

There are two access points to the residential community on the south side of San Geronimo Creek in Lagunitas: one at Mountain View Road and one just downstream along Lagunitas Road. Road closure of Mountain View Road across the creek is expected in order to expedite construction of the replacement bridge and roadway approach work. Access on the south side of the creek along Mountain View Road and Corona Avenue would be maintained throughout construction. However, there may be limited timeframes where access to residential properties would be restricted to facilitate raising the profile and constructing driveway conforms.

Mountain View Road across San Geronimo Creek would be closed to traffic during the existing bridge removal, new bridge construction, and retaining wall construction. The closure would last approximately two months. Traffic would be detoured during the closure and Mountain View Road would be accessible via Lagunitas Road, located approximately 1,000 feet west of Mountain View Road. Construction is expected to begin in Spring 2021 and is anticipated to have a duration of six months.



Legend

Project Site

Creek

Map Not to Scale

N

Project Location Map Figure 1

Source: Google Earth, 2019

III. CIRCULATION AND REVIEW

This Initial Study/Mitigated Negative Declaration is being circulated for a 30-day review and comment period pursuant to California Environmental Quality Act (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 Public Works- Land Development
- Marin County Stormwater Program (MCSTOPPP)
- Marin County Community Development Agency
- Marin County Fire Department

Trustee and Responsible Agencies:

- National Marine Fisheries Services
- US Fish and Wildlife Service
- US Army Corps of Engineers
- 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 Environmental Impact Report (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 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.

V. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

VI. 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?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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

Less than Significant. The 2007 Marin Countywide Plan's (Countywide Plan) *Policy DES-4.1, Preserve Visual Quality*, establishes the goal of protecting scenic resources, including views of ridgelines, upland greenbelts, hillsides, water, and trees (Marin County Community Development Agency, 2007). Three of these listed scenic resources are visible from the project site: hillsides, water (San Geronimo Creek), and trees. The project site is not in a ridge or upland greenbelt area.

The project would result in temporary visual changes during construction due to the presence of construction vehicles, road signage, demolition debris. These temporary visual changes would be visible to motorists and residents but would be removed after construction. The replacement bridge would conform to the existing visual landscape and the overall visual quality of the project site would remain substantially unchanged. The proposed project would not adversely affect scenic resources identified by the County, such as views of San Geronimo creek, hillsides, or trees visible from the project site. This impact would be less than significant.

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

No Impact. The project is not located within a state-designated scenic highway viewshed (Caltrans, 2019). While participation in the Scenic Highway Program is under consideration, the County does not currently designate any scenic highways within its jurisdiction (Marin County Community Development Agency, 2007). No impact would occur.

c) Would the proposed project substantially degrade the existing visual character or quality of the public views of the site and its surroundings in non-urbanized areas? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. Parcels surrounding the project site are zoned as Residential Single Family and Limited Roadside Business and are subject to countywide planning efforts to preserve visual quality, as described in the Countywide Plan. However, the project would replace existing road and bridge infrastructure and would not conflict with existing zoning or regulations governing scenic quality.

Project construction would occur over a six-month period and would temporarily disrupt the visual character along Mountain View Road Bridge, Mountain View Road, and Sir Francis Drake Boulevard. Construction equipment, stockpiling of material and construction activities would be visible to motorists as they pass the project area and nearby residents. Elements of the project that would result in the most notable visual changes include demolition and replacement of the Mountain View Road Bridge structure, roadway paving at the bridge approaches, overhead utility relocations, materials and equipment staging, grading, tree removal, and revegetation. Six mature trees would be removed from the western and southeastern banks for construction access and to accommodate the new bridge height.

While the activities listed above would result in visual changes that would be visible to motorists and residents, the project would generally conform to the existing visual landscape once complete. The replaced bridge would remain a rural one-lane bridge providing access to a residential community. Substantial stands of mature trees would remain in the area lining San Geronimo Creek and hillsides would remain visible in the distance from the project area. Once operational, the overall visual quality of the project site would remain substantially unchanged, and the project would not adversely affect scenic resources. This impact would be less than significant.

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

Less than Significant. The project does not include permanent facilities that would generate light or glare. Construction equipment and materials on the project site could temporarily create light and glare, but these sources would be removed after construction and would not represent a permanent, substantial source of light or glare that would adversely affect daytime or nighttime views in the area. This impact would be less than significant.

Aesthetics References

Caltrans, 2019. Officially Designated County Scenic Highways. Available: https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf

California Department of Conservation, 2016. Important Farmland in California. Farmland Mapping and Monitoring Program, Marin County Important Farmland. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/mar16.pdf. Accessed: May 2019.

Marin County Community Development Agency, 2007. Marin Countywide Plan. Chapter 3, The Built Environment, Section 3.5, Community Development. Available: https://www.marincounty.org/-

/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en. Accessed: August 2019.

Marin County Community Development, 2018. Zoning General Plan Lookup. County of Marin, Zoning and Property Information. Available: http://gis.marinpublic.com/Html5Viewer/Index.html?viewer=zonelookup&Run=StartUpQuery&query=prop_id=%27170-022-01%27. Accessed: May 2019.

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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land of conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

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

AND

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

No Impact. The California Department of Conservation Farmland Mapping and Monitoring Program categorizes the project site as Urban and Built-Up Land in a semi-rural area. The project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; is not under a Williamson Act contract; and is not zoned for agricultural use

(California Department of Conservation, 2016). There is a parcel zoned for Residential Agriculture approximately 0.25 mile northeast of the project site that could be indirectly impacted (Marin County Community Development Agency, 2018). However, the proposed project would not interfere with this parcel's agricultural functioning. No impact would occur.

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

AND

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

Less than Significant. Forest land is defined as land that can support 10 percent native tree cover (Public Resources Code section 12220(g)). Timberland is defined as land which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products (Public Resources Code section 4526). Timberland production zones are areas devoted to and used for growing and harvesting timber (Government Code section 51104(g)).

Based on these definitions, portions of the project site along the banks of the creek are considered forest land. While project activities would remove six mature trees during construction, the project would only occupy these areas as needed for completion of the roadway and bridge infrastructure replacement. After construction and revegetation, temporary impacts to undeveloped areas would be restored and no significant permanent impacts would result in the conversion of designated forest land use to non-forest use. This impact would be less than significant.

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

No Impact. As discussed in **Section 11, Land Use and Planning**, the project would not involve changes to the existing environment outside of the proposed bridge replacement on Mountain View Road over San Geronimo Creek. The bridge would remain one lane and would not lead to an increase in vehicle traffic or induce growth or other activities offsite. None of the proposed changes would result in the conversion of farmland or forest land. No impact would occur.

Agriculture and Forestry Resources References

California Department of Conservation, 2016. Important Farmland in California. Farmland Mapping and Monitoring Program, Marin County Important Farmland. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/mar16.pdf. Accessed: May 2019.

Marin County Community Development Agency, 2018. Zoning General Plan Lookup. County of Marin, Zoning and Property Information. Available: http://gis.marinpublic.com/Html5Viewer/Index.html?viewer=zonelookup&Run=StartUpQuery&query=prop_id=%27170-022-01%27. Accessed: May 2019.

3 Air Quality

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?	☐	☐	☒	☐

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

Less than Significant. The project site is within the San Francisco Bay Area (Bay Area) Air Basin, which is currently classified as non-attainment for national and state ground-level ozone standards, national and state ground-level fine particulate matter ($PM_{2.5}$) standards, and state respirable particulate matter (PM_{10}) standards. Non-attainment classification for an area is determined when air quality is worse than the National Ambient Air Quality Standards as defined in the Clean Air Act Amendments of 1970 (P.L. 91-604, Sec. 109). To meet these standards, the Bay Area Air Quality Management District (BAAQMD), which governs air quality in the Bay Area Air Basin, developed the Bay Area 2010 Clean Air Plan (CAP). One of the goals of the CAP is to limit projected increases in vehicle miles travelled (VMT), which is directly correlated to pollutant emissions, as much as possible (BAAQMD, 2010).

As discussed in **Section 14, Population and Housing**, the project would not add additional travel lanes or otherwise encourage increased vehicle usage along the bridge. Additionally, the BAAQMD finds that ozone is rarely a local air quality concern for the County, but because the area's hilly terrain and colder winter temperatures trap $PM_{2.5}$, air quality often exceeds health standards (BAAQMD, 2019). The project would not conflict with CAP air quality thresholds by inducing population growth or significantly increasing VMT in the area. This impact would be less than significant.

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

Less than Significant. Criteria pollutants for non-attainment, such as ground-level ozone, $PM_{2.5}$, and PM_{10} are regulated by state and federal agencies because of their known deleterious effects to respiratory health. As stated above, the project would not result in a significant increase in population or VMT, thereby limiting the possibility for a net increase in criteria

pollutants. Because use of the bridge would not result in an increase in VMT after project implementation, long term operational emissions and net concentrations of criteria pollutants are not expected to increase.

Construction activities, including demolition and operation of construction vehicles, would emit air pollutant emissions. However, given the relatively short construction duration (six months) and small scale of the project, it is unlikely that these activities would result in a regionally significant increase in criteria pollutants.

Dust and construction vehicle emissions that could result in potentially significant impacts to air quality are regulated by Marin County Code Section 22.20.040(B), listed below. With the implementation of the standard County permit requirements and the County's adopted dust control measures, any air quality impacts resulting from the proposed project would be less than significant.

Marin County Code Section 22.20.040(B): Dust Control

1. All unpaved exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas, and unpaved access roads) shall be watered two times a day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to a maximum of 15 miles per hour.
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California of Regulations). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified emissions evaluator.

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

Less than Significant. Sensitive receptors are children, elderly, asthmatics and others who are at a heightened risk of negative health outcomes due to exposure to air pollution. The locations where these sensitive receptors live or congregate are considered sensitive receptor locations (California Health and Safety Code § 42705.5(a)(5)). The nearest sensitive receptor locations are residences located less than 100 feet southwest of the project site. Given the project's short construction duration and small scale, nearby receptors would not be exposed to substantial pollutant concentrations. The project would not create a new pollutant source that might put sensitive receptors at an increased risk of any air quality related illnesses. This impact would be less than significant.

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

Less than Significant. Diesel exhaust generated during project construction may be occasionally odorous. However, such odors would be temporary, localized, and unlikely to affect a substantial number of people in the project vicinity. Upon operation, the new bridge would not produce odors or other emissions likely to affect a substantial number of people. This impact would be less than significant.

Air Quality References

Bay Area Air Quality Management District (BAAQMD), 2017. California Environmental Quality Act Air Quality Guidelines. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: August 2019.

BAAQMD, 2010, Bay Area 2010 Clean Air Plan, Prepared by BAAQMD, Association of Bay Area Governments (ABAG), San Francisco Bay Conservation and Development Commission (BCDC), and the Metropolitan Transportation Commission.

BAAQMD, 2019. Marin County. Available: http://www.baaqmd.gov/about-the-air-district/in-your-community/marin-county. Accessed: August 2019.

Marin County, California, Code of Ordinances § 22.20.040. Available: https://library.municode.com/ca/marin_county/codes/code_of_ordinances?nodeId=TIT22DECO_ARTIIISIPLGEDERE_CH22.20GEPRDEUSST_22.20.040OUCOAC. Accessed September 2019.

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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

Would the project:	*Significant or Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less than Significant*	*No Impact*
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Methodology

Garcia and Associates (GANDA) prepared a Natural Environment Study (NES) in February 2020 to identify potential biological impacts resulting from the project (**Appendix A**). This document investigated the potential presence of special-status species and critical habitat within the Biological Study Area (BSA), which represents the area where potential biological resources impacts could occur because of the project. The NES included a background literature review and field surveys conducted in 2015 and 2019.

Regulatory Setting

Federal

The Federal Endangered Species Act (FESA) (USC § 1531) and its implementing regulations protect federally listed wildlife species from "take," broadly defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." This includes habitat modification or degradation that directly results in death or injury of a listed wildlife species. "Take" can be unintentional or accidental. The USFWS and the NMFS have jurisdiction over federally-listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species, which are not legally protected, but are often included in project review in the event that they become listed in the near future.

State

The California Endangered Species Act (CESA), enforced by the CDFW, prohibits "take" from any plant or animal, listed or proposed, that are rare (plants only), threatened, or endangered. Habitat degradation or modification is not expressly included in the definition of "take" in CESA, however, the CDFW has interpreted "take" to include the "killing of a member of a species which is the proximate result of habitat modification." The California Fully Protected Species

classification (California Fish and Game Code [FGC] sections 3511, 4700, 5050 and 5515) is another legal protective designation administered by the CDFW that is intended to conserve wildlife species that risk extinction within the state of California.

According to the CDFW, a California Species of Special Concern (SSC) is "a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following criteria:

- is extirpated from the state or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status."

The California Native Plant Protection Act of 1977 (FGC § 1900 – 1913) directed the CDFW to "preserve, protect and enhance rare and endangered plants in California." This act allows CDFW to designate native plants as "endangered" or "rare" and protected endangered and rare plants from take.

Under the federal Migratory Bird Treaty Act (MBTA) and California FGC Sections 3505, 3513, and 3800, migratory birds, their nests, and eggs are protected from disturbance or destruction. Removal or disturbance of active nests would be in violation of these regulations. All birds are protected under the MBTA and FGC except the non-native European starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*).

Marin County Code

The project would be required to adhere to policies listed in the Marin County Code, which provide protections for local flora and fauna. Relevant local policies regarding biological resources are listed below.

Section 22.20.404 – Outdoor Construction Activities

E. Roosting Bat Protection Measures. For the purposes of protecting roosting bats, outdoor construction activity that involves tree removal in an area where a biological assessment has identified a high probability of roosting bats on site are subject to the requirements enumerated below before and during site preparation and construction activities, unless separate project mitigation measures have been adopted that override these requirements. These standards apply only to tree removal that takes place during the nesting seasons of March 1 and April 15 or between September 1 and October 15.

1. Trees identified as containing suitable roost habitat shall be removed using a two-step process if they are removed during the nesting season. Trees removed during the nesting season shall be felled the first day and left overnight before the felled trees are removed the following day or later.

2. A qualified biologist shall be responsible for overseeing the removal of trees that provide suitable bat habitat and will submit written confirmation to the County verifying that these measures have been undertaken.

F. Nesting Bird Protection Measures (excluding Northern Spotted Owl). For the purposes of protecting nesting birds, outdoor construction activity that involves tree removal, grading, or other site disturbances in an area where a biological assessment has identified a high probability of the presence of nesting birds are subject to the requirements enumerated below before and during site preparation and construction activities, unless separate project mitigation measures have been adopted that override these requirements.

1. Construction activities that may disturb birds shall be conducted outside the nesting season, which generally occurs between February 1 and August 15.
2. If commencing construction activities between August 16 and January 31 is infeasible and ground disturbance or tree removal needs to occur within the nesting season, a pre-construction nesting bird survey of the property shall be conducted by a qualified biologist. If no nesting birds are observed by the biologist, no further action is required, and construction activities shall occur within one week of the survey.
3. If active bird nests are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
4. To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude. After the fencing is in place, there will be no restrictions on grading or construction activities outside the prescribed buffer zones, but County staff during routine site inspections may verify that fencing remains in place.
5. Pre-construction surveys will be documented and provided to the County by the qualified biologist. If construction fencing is required, photographs of the fencing, directly after installation, will be submitted to the County.

G. Northern Spotted Owl. For the purposes of protecting northern spotted owls (*Strix occidentalis caurina*), outdoor construction activity that involves tree removal, grading, or other site disturbances in an area where a biological assessment has identified a spotted owl nest within 500 yards of a project are subject to the requirements enumerated below before and during site preparation and construction activities, unless separate project mitigation measures have been adopted that override these requirements.

1. Construction activities that may disturb northern spotted owls shall be conducted outside the nesting season, which occurs between February 1 and July 9.
2. If conducting construction activities between July 10 and January 31 is infeasible and construction or tree removal needs to occur within the nesting season, a pre-construction survey shall first be conducted by a qualified biologist. If no northern spotted owls are observed by the biologist, no further action is required, and construction activities shall occur within one week of the survey.
3. If active bird nests are observed during the pre-construction survey, a disturbance-free buffer zone of 500 yards shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.

4. To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.
5. Pre-construction surveys will be documented and provided to the County by the qualified biologist. If construction fencing is required, photographs of the fencing, directly after installation, will be submitted to the County.

Marin County Code Section 22.27 – Native Tree Protection and Preservation

The Marin County Native Tree Protection and Preservation Ordinance requires that a Tree Removal Permit be obtained prior to removing any protected and/or heritage tree within the county. Requirements for a Tree Removal Permit are detailed in Marin County Code Section 22.62. The definition of a protected and heritage tree varies by species and is defined in Marin County Code Section 22 Article VIII (Definitions). As a standard practice to maintain consistency with the Countywide Plan, the Landscaping Objectives identified in Marin County Code Section 22.26.040, the Single-Family Residential Design Guidelines, and the vegetation management requirements of the Marin County Fire Department or local Fire Protection District, the County may impose requirements including but not limited to the following:

- Replacement of trees at a ratio of three new appropriately sized and installed trees for each tree designated to be removed;
- For large properties, a management plan which designates areas of the property for preservation of stands of trees or saplings and replacement plantings as required; and removal of invasive exotic species.

Biologic Setting

The BSA (**Figure 2**) is approximately 2.31 acres and is located within Marin County's Inland Rural Environmental Corridor. There are no established migratory wildlife corridors within the BSA, but San Geronimo creek does serve as a migration pathway for the movement of fish species. The BSA contains six distinct vegetation and land cover types:

- **California bay forest/California buckeye groves** (0.05 acre): California bay (*Umbellularia californica*) is an evergreen broadleaf tree that grows to approximately 80 feet in height. California buckeye (*Aesculus californica*) is a large shrub or tree that may grow to approximately 25 feet tall. Within the BSA, California bay forest and California buckeye groves occur together as codominants across the Mountain View Road Bridge and partially cover the roadway and the small, unnamed intermittent creek that flows to San Geronimo Creek.
- **Oregon ash forest/Red alder grove** (0.28 acres): Oregon ash (*Fraxinus latifolia*) is a deciduous hardwood that may attain a height of approximately 80 feet and an age of 250 years. Red alder (*Alnus rubra*) is a deciduous hardwood that may attain a height of 130 feet and an age of 100 years. Within the BSA, Oregon ash and red alder occur together as codominants along San Geronimo Creek west of Mountain View Road Bridge. Other species which occur west of the bridge within the BSA include bigleaf maple and California bay. Riparian forest habitat provides water, forage, breeding areas, migration and dispersal corridors, and thermal cover on a year-round and seasonal basis for an abundance of wildlife.

- **Bigleaf maple/Oregon ash forest** (0.36 acre): Bigleaf maple (*Acer macrophyllum* Forest Alliance) is a deciduous hardwood that grows up to 70 feet in height and lives to 300 years. Within the BSA, bigleaf maple and Oregon ash occur together as codominants along San Geronimo Creek east of Mountain View Road Bridge. Other species that occur east of the bridge within the BSA include red alder and California buckeye. Bigleaf maple and Oregon ash also make up part of riparian forest in the BSA.
- **Waters** (0.21 acres): Waters are any open waters, including ponds and perennial or intermittent creeks. In the BSA, waters include San Geronimo Creek and an ephemeral drainage that flows north-to-south through a culvert beneath Corona Avenue to San Geronimo Creek. San Geronimo Creek provides suitable habitat for a variety of fish species and is connected to Tomales Bay with no barriers, such as dams or reservoirs.
- **Landscaped/Ruderal** (0.47 acres): Landscaped/ruderal areas have been impacted by grading, mowing, filling, and residential and commercial use. Monterey pine (*Pinus radiata*), incense cedar (*Calocedrus decurrens*), and deodar cedar (*Cedrus deodara*) are planted along Sir Francis Drake Boulevard, opposite the bridge, east of the residential driveway within the BSA. Ruderal vegetation such as non-native, invasive forbs and grasses also occur within this area of the BSA as well. Ruderal vegetation is roadside or trailside vegetation composed primarily of weedy, non-native plants, such as poison hemlock (*Conium maculatum*), wild fennel (*Foeniculum vulgare*), Italian thistle (*Carduus pycnocephalus*), and wild oats (*Avena spp.*).
- **Road** (0.94 acres): The road surfaces within the BSA are the local streets of Mountain View Road, Sir Francis Drake Boulevard, and Corona Avenue. Special-status wildlife species are not expected to use paved road surfaces but may cross the road during dispersal or foraging.

Special-Status Plant Species

Based on literature and database searches, prior botanical surveys, and familiarity with the region, 86 plant species were initially evaluated for the potential to occur within the BSA. Of these, 11 species were determined to have low potential to occur within the BSA. Rare plant species with no potential to occur are not considered further in this study but are identified and briefly discussed in **Appendix A**. No federally or state-listed plants, or plants with California Rare Plant Ranks were observed in the BSA during surveys conducted in 2015 and 2019. An abundance of ruderal vegetation—roadside or trailside vegetation composed primarily of weedy, non-native/invasive forbs and grasses—creates a generally unsuitable habitat for such species.

Special-Status Wildlife

Based on literature and database searches and familiarity with the region, 40 wildlife species were initially assessed for a potential to occur within the BSA. After reviewing the habitat preferences, geographic distribution, and known locations of all taxa on the preliminary list, 17 of these species were removed from consideration based on a lack of suitable habitat within the BSA and are not discussed further. **Table 1** outlines special-status wildlife species with potential to occur within the BSA.

Habitats and Natural Communities of Special Concern

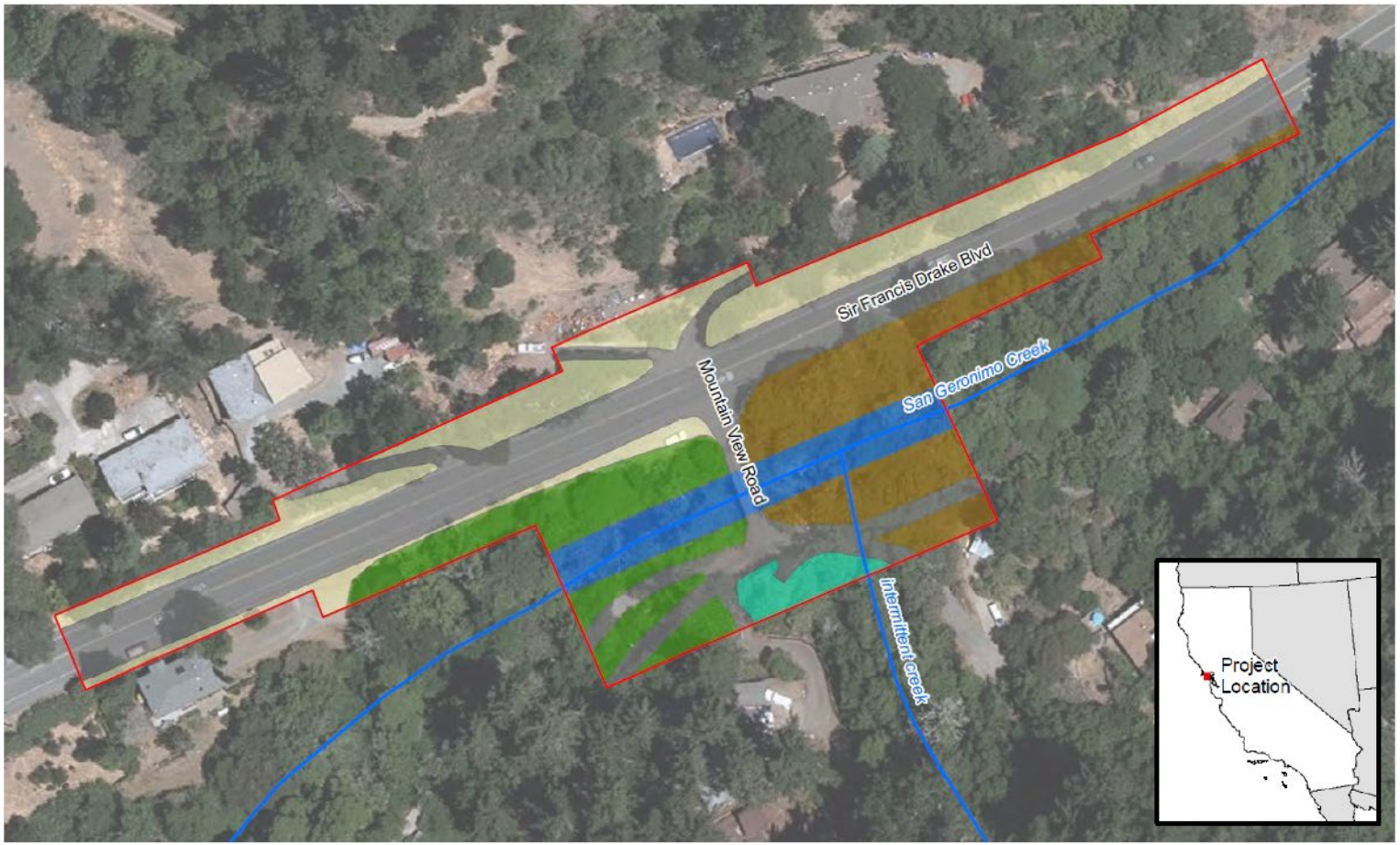
Natural communities of special concern are communities that are of limited distribution and are often vulnerable to changes in environmental conditions. These habitats are also considered to be of special concern because there are federal, state, or local laws regulating their development. Waters of the US and riparian woodland, described below, are natural communities of special concern present within the BSA.

Waters of the US

Waters of the US include perennial creeks, intermittent creeks, and wetlands. A total of 0.199 acre (282 linear feet) of Waters of the US were delineated within the boundaries of the BSA associated with a perennial stream (San Geronimo Creek) (**Figure 2**). There are no wetlands present within the BSA.

Riparian Woodlands

Riparian woodlands are forested or wooded areas of land adjacent to a body of water such as a river, stream, pond, lake, marshland, estuary, canal, sink or reservoir, and are considered special-status natural communities due to their limited distribution in California. Riparian vegetation is also regulated by the CDFW under Section 1602 of the FGC. Within the BSA, Oregon ash forest/red alder grove (0.28 acre) and bigleaf maple/Oregon ash forest (0.36 acre) vegetation types qualify as riparian woodland communities.



Legend

- Project Site
- Creek
- Big lead maple/Oregon ash forest
- Creek
- Oregon ash forest/Red alder forest
- Road
- Landscaped/Ruderal
- California bay forest/California buckeye groves

Map Not to Scale

N

Vegetation and Land Cover Types within Biological Study Area Figure 2

Source: GANDA, 2019

Table 1 Special-Status Wildlife Likely to Occur in the Biological Study Area

Name	Status[1]	Habitat	Potential to Occur in the BSA
Coho salmon – central California ESU (*Oncorhynchus kisutch pop. 4*)	FE / SE	Typically found in low- to mid-elevation coastal streams with moderate gradients. Coho spawn in clean, well aerated gravels. Juvenile coho typically rear in freshwater streams, including associated estuaries, for two years before emigrating to the Pacific Ocean to mature. Adult coho return to their natal streams to spawn as three-year-old fish.	**High.** Coho are known to occur in San Geronimo Creek. BSA also contains coho critical habitat and essential fish habitat.
Steelhead – central California coast DPS (*Oncorhynchus mykiss irideus pop. 8*)	FT / SA	Found in streams with access to the ocean from Southern California to Alaska. Typically inhabit higher gradient reaches than other anadromous salmonids, and therefore can occur higher in the watershed. Spawn in clean, well aerated gravels. Juveniles typically rear in freshwater streams, including associated estuaries, for two years before emigrating to the Pacific Ocean to mature. Adults may return to their natal streams to spawn after a few months to a few years in saltwater. The Central California Coast DPS includes populations from the Russian River south to Aptos Creek, including San Francisco Bay tributaries.	**High.** Steelhead are known to occur in San Geronimo Creek. BSA is within steelhead critical habitat.
Tomales roach (*Lavinia symmetricus ssp. 2*)	SSC	California roach are found in a wide variety of low- and mid-elevation streams, typically in habitats with moderate gradients. Roach can tolerate wide ranges of temperature and dissolved oxygen. The Tomales roach is a subspecies endemic to the tributaries of Tomales Bay.	**High.** Species was observed within the BSA during the reconnaissance survey.
California freshwater shrimp (*Syncaris pacifica*)	FE / SA	Occur in low elevation, low gradient streams with complex, undercut banks, exposed roots, and organic debris creating habitat structure and complexity. Endemic to Marin, Napa, and Sonoma counties.	**Low.** Known to occur lower in the Lagunitas Creek watershed, but not known to occur in San Geronimo Creek. Limited suitable habitat is present within the BSA.
California red-legged frog (CRLF) (*Rana draytonii*)	FT / SSC	Breeds in ponds and pools in slow-moving streams with emergent vegetation; adjacent upland habitats are often used for temporary refuges or dispersal movements.	**Moderate.** Known CNDDB occurrences 2 miles from the BSA. Suitable upland habitat is present within and adjacent to the BSA and suitable breeding ponds present within dispersal range.

Name	Status[1]	Habitat	Potential to Occur in the BSA
Foothill yellow-legged frog (FYLF) (*Rana boylii*)	SSC	Breeds and forages in rocky or cobble-bottomed streams and rivers. Found in a variety of forest, woodland, scrub, riparian, and meadow habitats where suitable streams and rivers are present.	**High.** Habitat present in BSA and multiple CNDDB occurrences from San Geronimo Creek and Lagunitas Creek within 2 miles of the project.
California giant salamander (*Dicamptodon ensatus*)	SSC	Found in a variety of aquatic habitats including lakes, ponds, rivers, and streams. They prefer fast moving water to slow moving water. Refugia, such as burrows and fallen debris, used for hiding, protection from the sun, and brooding are also a vital characteristic of their habitat.	**High.** Habitat present in BSA and multiple CNDDB occurrences within 2 miles of the project.
Western pond turtle (*Actinemys marmorata*)	SSC	Occurs in both permanent and seasonal waters, including marshes, streams, rivers, ponds, and lakes. Also found in agricultural irrigation and drainage canals. Favors habitats with large amounts of emergent logs or boulders, where several individuals may congregate to bask.	**Moderate.** Moderate potential to occur in the BSA during upland dispersal from nearby pond and deep-water stream habitats. Some basking habitat upstream of the bridge in the BSA. No nesting habitat within the BSA.
Northern spotted owl (*Strix occidentalis caurina*)	FT / ST	Nest and roost in forests of dense canopy closure. Prefer old forest stands with multi-layered canopies of several tree species in varying size and age.	**High.** BSA is adjacent to critical habitat. species may forage in the BSA.
San Francisco dusky-footed woodrat (*Neotoma fuscipes ssp. Annectens*)	SSC	Found in forest habitats of moderate canopy and moderate to dense understory. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	**Moderate.** May occur in riparian and oak woodland areas throughout the BSA.
Cooper's hawk (*Accipiter cooperii*)	SA	Found in woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	**Moderate.** Suitable nesting and foraging habitat throughout riparian corridor and surrounding forested hillsides.
Rufous hummingbird (*Selasphorus rufus*)	SA	Found by streamsides, forest edges, and mountain meadows. Breeds on forest edges and clearings. Winters in Mexico.	**Moderate.** Suitable foraging habitat present in BSA. Project is outside breeding range.

Name	Status[1]	Habitat	Potential to Occur in the BSA
Oak titmouse (*Baeolophus inornatus*)	SA	Found in oak woodland by rivers and streams. May also live in open pine or mixed oak-pine forest. Restricted to dry slopes of California, sometimes ranges north to Oregon and south to Baja California.	**High.** Suitable nesting and foraging habitat present in BSA.
Yellow warbler (*Setophaga petechia*)	SSC	Generally occupy riparian vegetation close to water along streams and in wet meadows for both foraging and nesting.	**High.** Suitable foraging and nesting habitat present in BSA. Observed during 2019 surveys.
Pallid bat (*Antrozous pallidus*)	SSC	Occurs throughout California and most abundant in grasslands, shrublands, and woodlands. Roosts in crevices and cavities of buildings, bridges, tunnels, rocks, cliffs, and trees.	**High.** High potential for foraging only. No suitable day roost habitat in bridge, marginally suitable day roost habitat in surrounding riparian corridor, though no very large trees present within the BSA. Night roost habitat present on bridge, but no evidence of night roosts observed. Suitable foraging habitat present along creek corridor throughout BSA.
Townsend's big-eared bat (*Corynorhinus townsendii*)	SSC	Occurs in broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seeps, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, and valley and foothills grassland.	**Moderate.** Known to occur in the region, but species extremely sensitive to disturbance. May roost in bridge interior within the BSA that offers cave-like spaces.
Yuma myotis (*Myotis yumanensis*)	SA	Found throughout California in open forests and woodlands near sources of water. Roosts in crevices and cavities of buildings, caves, tunnels, mines, bridges, and trees. Forages primarily over open water.	**Moderate.** Known to occur in the region (museum record). Suitable riparian and woodland habitats within the BSA and likely to roost in bridge interiors within the BSA.

[1]Special-status species code designations: FE = Listed as Endangered under the federal Endangered Species Act; FT = Listed as Threatened under the federal Endangered Species Act; SE = Listed as Endangered under the California Endangered Species Act; ST = Listed as Threatened under the California Endangered Species Act; SC = State Candidate for Threatened Species; SSC = California Department of Fish and Wildlife Species of Special Concern, SA = Included on the California Department of Fish and Wildlife's Special Animals List

Impact Discussion

Biological Resources BMPs

The following BMPs would contribute to the minimization or avoidance impacts for wildlife species evaluated in this discussion.

Permits

The County will include a copy of all relevant regulatory permits within the project's construction bid package. The Resident Engineer or their designee will be responsible for implementing the Terms and Conditions of those regulatory permits.

Biological Monitor Approval

USFWS/CDFW will review and approve the qualifications of the biological monitor(s) prior to initiating construction activities for the project. The approved monitor will be on-site for all designated activities as required by the agencies during consultation.

Limited Construction During and After Rain Events

To the maximum extent practicable, no construction activities will occur during rain events or within 24 hours following a rain event. Prior to construction activities resuming, an agency-approved biologist will inspect the BSA and all equipment and materials for the presence of special-status species. The animals will be allowed to move away from the project site of their own volition or be relocated by the agency-approved biologist according to protocol established by the agency.

Caltrans Standard BMPs

The potential for adverse effects to water quality will be avoided by implementing temporary and permanent BMPs outlined in Section 7-1.01G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind- or water-related erosion. The State Water Resources Control Board (SWRCB) has issued a National Pollution Discharge Elimination System (NPDES) Statewide Storm Water Permit to Caltrans to regulate storm water and non-storm water discharges from Caltrans facilities. A SWPPP will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP complies with the Caltrans Storm Water Management Plan (SWMP). The SWMP includes guidance for Design staff to include provisions in construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.

The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges.[1] Protective measures will include, at a minimum, the following:

a. No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses.

[1] The Caltrans Construction Site BMPs Manual can be found at the following website: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

b. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses.
c. Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses.
d. Dust control implementation, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.
e. Coir rolls will be installed along or at the base of slopes during construction to capture sediment and temporary organic hydro-mulching will be applied to all unfinished disturbed and graded areas.
f. Work areas where temporary disturbance has removed the pre-existing vegetation will be re-seeded with a native seed mix.
g. Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.
h. A Revegetation Plan will be prepared for restoration of temporary work areas. Pavement and base will be removed; topography blended with the surrounding area; and topsoil will be salvaged from the new alignment area to be placed over the restored area, which will then be revegetated with native grassland species.

Removal of Exotic Wildlife Species

Agency-approved biologists will remove any aquatic exotic wildlife species, such as bullfrogs and crayfish from the project site, to the maximum extent possible.

Pollutant Minimization

To avoid and minimize sediment loading and point source pollutants, bio-swales and bio-filtration will be installed adjacent to roadways at the project site.

Water Quality Inspection

Water quality inspector(s) will inspect the site after a rain event to ensure that the stormwater BMPs are adequate.

Vehicle Use

Project employees will be required to comply with guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

Night Work

To the extent practicable, nighttime construction will be minimized.

Night Lighting

Artificial lighting of the project site during nighttime hours will be minimized and directed away from non-paved surfaces to the maximum extent practicable.

Trash Control

All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the work area.

Firearms

No firearms will be allowed in the project area except for those carried by authorized security personnel, or local, State, or federal law enforcement officials.

Pets

To prevent harassment, injury or mortality of sensitive species, no pets will be permitted on the project site.

Prohibition of Monofilament Erosion Control

Plastic mono-filament netting (erosion control matting) or similar material will not be used. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

Concrete Waste and Stockpiles

All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 150 feet from any aquatic habitat, culvert, or drainage feature.

Care of Injured or Dead Species

Listed species found injured will be cared for by a licensed veterinarian or a wildlife rehabilitation facility. After hours, interim care may be provided by another experienced person, including the on-site biologist, until the animal can be delivered to a facility. Dead individuals of any listed species will be preserved by freezing and held in a secure location. The USFWS and/or CDFW will be notified of the discovery of death or injury to a listed species occurring as a result of project-related activities or if observed at the project site.

General Biological Resources Mitigation Measures

The following mitigation measures apply to several wildlife species that would be affected by the project. These general mitigation measures are defined below and referenced throughout this analysis.

Mitigation Measure BIO-1: Preconstruction Surveys

Prior to any ground disturbance, an agency-approved biologist shall conduct preconstruction surveys for special-status species and habitats in and adjacent to the proposed project area. These surveys shall consist of walking surveys of the project limits and, if possible, accessible adjacent areas within at least 50 feet of the project limits. The biologist(s) shall investigate all potential cover sites. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the project limits shall be documented and relocated to an adequate cover site in the vicinity. The entrances and other refuge features within the project limits shall be collapsed or removed following investigation. Regulatory agencies shall be notified within 24 hours if any unanticipated listed species are identified during these surveys. If an individual is found during preconstruction surveys, work will not commence until the individual leaves the work area of its own volition or has been relocated to suitable habitat away from the construction area according to USFWS protocol and by an agency-approved biologist with a handling permit.

Mitigation Measure BIO-2: Biological Monitoring

The agency-approved biologist(s) shall be on-site during initial ground-disturbing and in-water activities, and thereafter as needed to fulfill the role of the approved biologist as specified in the project permits. The biologist(s) shall keep copies of applicable permits in their possession when on site. Through the Resident Engineer or their designee, the agency approved biologist(s) shall be given the authority to communicate either verbally, by telephone, email, or hardcopy with all project personnel to ensure that the risk of taking a listed species is minimized and that all permit requirements are fully implemented. Through the Resident Engineer or their designee, the agency approved biologist(s) shall have the authority to stop project activities to minimize take of listed species or if he/she determines that any permit requirements are not being fully implemented. If the agency-approved biologist(s) exercises this authority, the agencies shall be notified by telephone and email within 48 hours.

During in-water activities, the approved biologist shall continuously monitor all activities (e.g., installation and removal of cofferdams and pipes) for the purpose of avoiding and minimizing any undue impacts to coho salmon, central California coastal steelhead, and other special-status aquatic species (fish and herpetofauna), coho salmon critical habitat, steelhead critical habitat, habitat areas of particular concern (HAPC), and essential fish habitat (EFH) for coho salmon; and to ensure that the diversion and dewatering devices are functioning properly. An approved aquatic biologist shall also be present for the purpose of removing and relocating any listed species that were not detected during the fish rescue or could not be removed and relocated prior to construction. The approved aquatic biologist shall be present at the work site until all listed species have been removed and relocated.

The approved biologist shall maintain detailed records of the species, numbers, life stages, and size classes of special-status species observed, collected, relocated, injured, or killed; as well as recording the date and time of each activity or observation and shall provide this information to NMFS and CDFW, as necessary. The approved biologist shall also maintain detailed records of any impacts to special-status habitats (in particular to primary constituent elements [PCEs] of coho salmon and central California coastal steelhead critical habitat and to HAPCs of coho salmon EFH) and provide this information to NMFS.

Mitigation Measure BIO-3: Water Diversion and Dewatering

If flowing water is present in the channel, the flow shall be diverted around the work area by creating a temporary diversion to isolate a dry active construction work area following BMP NS-5: Clear Water Diversion in the Caltrans Construction Site BMP Manual. The temporary diversion shall be installed as close as possible to the construction area to minimize impacts to the flow of the stream and shall be constructed to ensure a tight seal with the creek bed to allow for a dry work area and minimize downstream turbidity. As necessary, water behind the dam shall be pumped out and piped to a downstream location. Any water intake structure shall be installed, operated, and maintained in accordance with current NMFS, USFWS, and CDFW criteria, or as developed in cooperation with NMFS, USFWS, and CDFW to accommodate site-specific conditions. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows and the outlet of all diversions shall be positioned such that the discharge of water does not result in bank erosion or channel scour and maintains pre-project hydraulic conditions. The length of the pipe shall be the minimum necessary to safely convey the flow through the construction site and shall be placed on the streambed at natural grade.

Diverted flows shall be returned to the stream channel immediately downstream of the work area. Immediately upon completion of in-channel work, temporary fills, diversion cofferdams, and other in-channel structures shall be removed in a manner that minimizes disturbance to downstream flows and water quality. Creek diversion shall be limited to the minimum amount of time necessary to support construction activities.

Mitigation Measure BIO-4: Creek Bed and Bank Protection

The creek bed and banks shall be protected to prevent permanent impacts from temporary construction access and project construction. Construction equipment designed to apply low ground pressure shall be used in the channel to minimize compaction of the creek bed. Native substrates removed during excavations and earthwork shall be stockpiled and returned to the creek bed and banks following project construction as part of the site restoration effort.

Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection

Downed trees, stumps, boulders, and other basking sites and refuges within aquatic habitat shall remain undisturbed to the extent possible.

Mitigation Measure BIO-6: Debris Containment

Debris containment shall be provided to keep bridge debris from falling into San Geronimo Creek during demolition and construction activities.

Mitigation Measure BIO-7: Restoration and Revegetation

Modified or disturbed portions of the stream channel, banks, and riparian areas shall be restored as nearly as possible to natural and stable contours (elevations, profile, and gradient). Native substrates removed during excavations and earthwork shall be stockpiled and returned to the creek bed and banks. An assemblage of native grass seed mix and shrubs shall be applied to areas disturbed by construction, creek access, and contouring, as well as to areas where native soils overlay the buried RSP. Riparian trees shall be planted in areas on site and in kind to those requiring removal for construction access. Riparian plants shall also be planted along the banks in the areas of bank stabilization, RSP placement, and any disturbed areas. Live willow cuttings shall be used at the appropriate lower bank elevations (just above bank toe). Invasive, exotic plants shall be controlled within the project site to the maximum extent practicable, pursuant to Executive Order 13112.

Mitigation Measure BIO-8: Management of Japanese Knotweed

Japanese knotweed is an invasive species prevalent within the region. If Japanese knotweed is identified in the BSA, excavation around the plant shall be avoided when possible. When excavation around the plant cannot be avoided due to construction activities, the plant shall be excavated 10 feet below the surface and disposed of off-site.

Mitigation Measure BIO-9: Aquatic and Riparian Vegetation Protection

Disturbance and removal of riparian, emergent, and aquatic vegetation shall be minimized. If riparian vegetation must be cut back, it shall be to the minimum height necessary (no lower than ground level) in order to promote rapid re-growth.

Mitigation Measure BIO-10: Prevention of Wildlife Entrapment

To prevent inadvertent entrapment of wildlife species during construction, excavated holes or trenches more than 1 foot deep with walls steeper than 30 degrees shall be covered at the close of each working day by plywood or similar materials. Alternatively, an additional 4-foot-high vertical barrier, independent of exclusionary fences, shall be used to further prevent the inadvertent entrapment of wildlife species. If it is not feasible to cover an excavation or provide an additional 4-foot-high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped listed animal were discovered, the on-site biologist shall immediately place escape ramps or other appropriate structures to allow the animal to escape or the USFWS/CDFW shall be contacted by telephone for guidance. The USFWS/CDFW shall be notified of the incident by telephone and electronic mail within 48 hours.

Mitigation Measure BIO-11: Material Storage

CRLFs and other species are attracted to cavity-like structures, such as pipes, and may seek refuge under construction equipment or debris. They may become trapped or injured if such materials are moved. All construction pipes, culverts, or similar structures, construction equipment or construction debris left overnight within the work area shall be inspected by the agency-approved biological monitor prior to being moved.

Mitigation Measure BIO-12: Nesting Bird Surveys

A nesting bird survey shall be performed by an approved biologist no more than 72 hours prior to the start of construction activities occurring during the breeding season (February 15 to August 31).

Mitigation Measure BIO-13: Non-disturbance Buffer for Nesting Birds

If work is to occur within 100 feet of active raptor nests or 50 feet of active passerine nests, a non-disturbance buffer shall be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential work activities.

Mitigation Measure BIO-14: Work Window for Nesting Birds

To the extent practicable, clearing and grubbing activities and any tree removal shall be conducted during the non-nesting season, from September 1 to February 14.

Mitigation Measure BIO-15: Worker Environmental Awareness Training

Prior to working on the project, all construction personnel shall attend a mandatory environmental education program delivered by an approved biologist. At a minimum, the training shall include a description of listed species, migratory birds, and their habitats. The training shall also discuss the potential occurrence of these species within the BSA; an explanation of the status of these species and their protection under the Endangered Species Act and other laws; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and, boundaries within which construction may occur. Documentation of the training, including sign-in sheets, shall be kept on file and shall be available on request.

Mitigation Measure BIO-16: Wildlife Exclusion Fencing

High visibility wildlife exclusion fencing at least 4 feet in height shall be installed around suitable habitat for listed species within the outer footprint of the project to prevent wildlife from accessing work areas. The fencing shall be removed only when all construction equipment is removed from the site. No project activities shall occur outside the delineated project area. The wildlife exclusion fencing shall be monitored periodically and all areas shall be checked following rain events. Construction activities occurring outside of suitable habitat for special-status species shall not require wildlife exclusion fencing.

Mitigation Measure BIO-17: Listed Species On-site

The Resident Engineer shall immediately contact the agency-approved project biologist(s) in the event that coho salmon, steelhead, CRLF, or other listed species are observed within a construction zone. The Resident Engineer shall suspend construction activities within a 50-foot radius of the animal until the animal leaves the site voluntarily or an agency-approved protocol for removal has been established.

a) Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Coho Salmon, Steelhead Trout, and Tomales Roach

Less than Significant with Mitigation. Coho salmon, central California coastal steelhead, and Tomales roach are all fish species with a high potential to occur in the BSA due to their expected use of aquatic habitat in San Geronimo Creek. The BSA also includes coho salmon critical habitat, coho salmon EFH, and central California coastal steelhead critical habitat.

Temporary project disturbances are anticipated to directly impact these fish species, if present during construction. Direct impacts would occur due to fish relocation, creek dewatering, and a temporary increase in sedimentation. Fish relocation efforts could result in injury or mortality, and if individuals escape capture during relocation efforts, they may be adversely affected by dewatering activities on-site.

Approximately 0.12 acre of temporary habitat impacts would occur during construction. Temporary impacts include construction equipment access areas; the creek diversion; disturbance to the creek bed and banks during removal of the old bridge and construction of the new bridge; temporary habitat loss during construction (from dewatering); changes to water quality due to turbidity and sedimentation; changes to water temperature due to obstruction or alteration of flow and/or decreased shade from tree removal; disturbance to, or removal of, forage (such as macroinvertebrate communities in dewatered areas); removal of cover such as aquatic and emergent vegetation; and disturbances to substrates.

Approximately 0.04 acre of permanent habitat impacts would result from the placement of fill where RSP is installed below the ordinary high water mark (OHWM). The widened bridge deck would also increase permanent shading over San Geronimo Creek by approximately 131 square feet. Other potential permanent impacts to coho may include changes in water temperature due to removal of thermal refugia including shade and deep pools and removal of cover such as trees, boulders, and woody debris.

Indirect impacts to individuals and habitat may include competition with other fish at relocation sites; increases in downstream turbidity during re-watering and during the first high flows following construction as a result of project work on the banks and within the channel; changes to water temperature due to obstruction or alteration of flow and/or due to removal of thermal refugia, including shade and deep pools; disturbance to, or removal of, forage (such as macroinvertebrate communities in dewatered areas); removal of cover such as aquatic and emergent vegetation, boulders, and woody debris; and disturbances to substrates.

Given the above, impacts to coho salmon, central California coastal steelhead, and Tomales roach would be potentially significant; however, this impact would be reduced to less than significant with the implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-3: Water Diversion and Dewatering**, **Mitigation Measure BIO-4: Creek Bed and Bank Protection**, **Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection**, **Mitigation Measure BIO-6: Debris Containment**, **Mitigation Measure BIO-7: Restoration and Revegetation, Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-18: Salmonid Work Period, Mitigation Measure BIO-19: Coho Salmon and Steelhead Critical Habitat and EFH Protection, Mitigation Measure BIO-20: Fish Handling Plan, Mitigation Measure BIO-21: RSP Installation**.

Mitigation Measure BIO-18: Salmonid Work Period

In accordance with the NMFS and CDFW work window for salmonids, work in the San Geronimo Creek channel shall be restricted to the period from June 15 to October 15, when stream flow is lowest.

Mitigation Measure BIO-19: Coho Salmon and Steelhead Critical Habitat and EFH Protection

Downed trees, stumps, boulders, and other refuges shall remain undisturbed as much as possible. Thermal refugia (pools) and suitable spawning sites shall remain undisturbed as much as possible. Disturbances to coho salmon and central California coastal steelhead critical habitat and EFH shall be documented by the approved biologist and provided to NMFS as necessary.

Mitigation Measure BIO-20: Fish Handling Plan

A fish handling and relocation plan shall be developed by the approved aquatic biologist in coordination with NMFS and/or CDFW. Individual organisms shall be relocated the shortest distance possible to an adjacent upstream area with sufficient aquatic habitat. Within occupied habitat, capture, handling, exclusion, and relocation activities shall be completed no earlier than 48 hours before construction begins. If electrofishing is conducted, it must be performed by an approved biologist following NMFS guidelines.

During fish relocation, all organisms shall be kept in water to the maximum extent possible and captured coho salmon and steelhead shall be kept in cool, shaded, well-aerated water and protected from disturbance and overcrowding until they are released. To avoid predation, separate containers shall be used: one for young-of-the-year coho and steelhead, and one for second- or third-year coho and steelhead. Captured fish shall be relocated to suitable upstream rearing habitat that is as close to the dewatered area

as possible while meeting the survival needs (adequate water quality/quantity, cover, and forage) of both the relocated individuals and the fish already inhabiting the relocation site.

The fish handling plan shall include methods for detecting and relocating lamprey larva (*ammocoetes*) following the recommendations in *Attachment A: Electrofishing Recommendations for Sampling Larval Pacific Lampreys in Best Management Practices to Minimize Adverse Effects to Pacific Lamprey (Entosphenus tridentatus)*.

Mitigation Measure BIO-21: RSP Installation

RSP installation shall follow fish passage guidelines consistent with the *California Salmonid Stream Habitat Restoration Manual* (CDFW 2010) and the *NMFS Anadromous Salmonid Passage Facility Design* (NMFS 2011).

The project would result in permanent, direct impacts to 0.04 acres of habitat for Coho salmon and central California coastal steelhead, which are federally endangered species. To avoid net loss of habitat for these two species, the County proposes on-site restoration of riparian woodland and wetland habitat. RSP will prevent erosion and degradation of impacted areas and mitigation measures (such as **Mitigation Measure BIO-7: Restoration and Revegetation**) would improve habitat conditions after construction. In addition, the County, in coordination with Caltrans, prepared a biological assessment to initiate formal consultation with the NMFS per Section 7 of FESA regarding the project's impacts to Coho salmon and central California coastal steelhead. Through the Section 7 consultation process, the NMSF will issue a biological opinion that will include standards to avoid net loss of Coho salmon and central California coastal steelhead habitat that would result from the project.

California Freshwater Shrimp

Less than Significant with Mitigation. California freshwater shrimp has a low potential to occur within the BSA, and project construction would take place outside of the species' breeding season. Project activity that could impact this species – if present within the BSA – is installation and removal of the temporary diversion of San Geronimo Creek. Injury to California freshwater shrimp individuals would represent a potentially significant impact, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring, Mitigation Measure BIO-17: Listed Species On-site**.

California Red-legged Frog and Foothill Yellow Legged Frog

Less than Significant with Mitigation. The CRLF has a moderate potential for occurrence and FYLF has a high potential for occurrence within the project site due to the presence of dispersal and foraging habitat within the BSA. The BSA does not contain suitable CRLF or FYLF breeding habitat.

Approximately 0.42 acre of CRLF and FYLF habitat would experience temporary impacts during construction. These temporary construction activities include site preparation, use of heavy equipment, placement of new permanent structures and the placement of temporary and permanent fills. Excavation and grading activities with heavy equipment during construction could result in injury or death to individuals of these species, but there is a low potential for

direct mortality of individuals in the construction area. Indirect impacts may result from habitat exclusion, and construction activities could include water quality degradation from erosion or sediment loading.

Direct effects to CRLF and FYLF habitat include approximately 0.14 acre of permanent impacts from the placement of fill, where the new bridge abutments are proposed, and where RSP would be installed below the OHWM.

Given the above, impacts to CRLF and FYLF would be potentially significant, reduced to a less-than-significant level with the implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-4: Creek Bed and Bank Protection**, **Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection**, **Mitigation Measure BIO-6: Debris Containment**, **Mitigation Measure BIO-7: Restoration and Revegetation**, **Mitigation Measure BIO-9: Aquatic and Riparian Vegetation Protection**, **Mitigation Measure BIO-10: Prevention of Wildlife Entrapment**, **Mitigation Measure BIO-11: Material Storage, Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-22: California Red-legged Frog Preconstruction Survey**.

> ***Mitigation Measure BIO-22: California Red-legged Frog Preconstruction Survey.***
>
> No more than 24 hours prior to the date of initial ground disturbance, a preconstruction survey for the CRLF shall be conducted by an agency-approved biologist at the project site. The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of the species. The agency-approved biologist shall investigate all potential areas that could be used by the CRLF for feeding, breeding, sheltering, movement, and other essential behaviors. This includes an adequate examination of mammal burrows, such as California ground squirrels or gophers. If any adults, subadults, juveniles, tadpoles, or eggs are found, the agency-approved biologist shall contact USFWS to determine if moving any of the individuals is appropriate. In making this determination, USFWS shall consider if an appropriate relocation site exists. If USFWS approves moving animals, the agency-approved biologist shall move the animals from the work site before ground disturbance is initiated. Only agency-approved biologists shall capture, handle, and monitor the CRLF.

The project would result in permanent, direct impacts to 0.14 acres of habitat for CRLF, which is a federally endangered species. To avoid net loss of CRLF habitat, the County proposes restoration of riparian woodland and wetland habitat to offset permanent effects from construction of the new bridge. RSP will prevent erosion and mitigation measures (such as **Mitigation Measure BIO-7: Restoration and Revegetation**) would improve on-site habitat after construction. In addition, the County, in coordination with Caltrans, prepared a biological assessment to initiate formal consultation with the USFWS per Section 7 of FESA regarding the project's impacts to CRLF. Through this Section 7 consultation process, the USFWS will issue a biological opinion that will include standards to avoid net loss of CRLF habitat that would result from the project.

California Giant Salamander

Less than Significant with Mitigation. The California giant salamander has a high potential to occur in the BSA based on the presence of suitable habitat, CNDDB records, and nearby observations. The project activity most likely to impact this species is the installation and removal of the temporary diversion of San Geronimo Creek. California giant salamander injury or mortality during construction represents a potentially significant impact, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-4: Creek Bed and Bank Protection**, **Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection**, **Mitigation Measure BIO-6: Debris Containment**, **Mitigation Measure BIO-7: Restoration and Revegetation**, **Mitigation Measure BIO-9: Aquatic and Riparian Vegetation Protection**, **Mitigation Measure BIO-10: Prevention of Wildlife Entrapment**, **Mitigation Measure BIO-11: Material Storage, Mitigation Measure BIO-17: Listed Species On-site**.

Western Pond Turtle

Less than Significant with Mitigation. The western pond turtle has a moderate potential to occur within the project site due to the presence of marginally suitable dispersal habitat within the BSA. The BSA does not contain western pond turtle basking or nesting habitat. The project activity most likely to impact this species is the temporary diversion of San Geronimo Creek. Western pond turtle injury or mortality during construction represents a potentially significant impact, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-4: Creek Bed and Bank Protection**, **Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection**, **Mitigation Measure BIO-6: Debris Containment**, **Mitigation Measure BIO-7: Restoration and Revegetation**, **Mitigation Measure BIO-9: Aquatic and Riparian Vegetation Protection, Mitigation Measure BIO-17: Listed Species On-site**.

Northern Spotted Owl

Less than Significant with Mitigation. No impacts to nesting spotted owls are expected to occur as a result of the project because northern spotted owls are not expected to nest close enough to the BSA to be disturbed by construction. Despite the lack of suitable nesting habitat within the BSA, the northern spotted owl has a high potential for occurrence based on the immediate vicinity (450 feet) of known nesting and foraging habitat. Roosting northern spotted owls could be temporarily displaced by construction activities, which represents a potentially significant impact.

The project would comply with Marin County Code Section 22.20.040(G), which applies protections for northern spotted owls during outdoor construction activities that involve tree removal, grading, or other site disturbances in an area where a biological assessment has identified a spotted owl nest within 500 yards of a project. Application of Marin County Code Section 22.20.040(G), in addition to the following mitigation measures, would reduce northern spotted owl impacts to a less-than-significant level: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation**

Measure BIO-12: Nesting Bird Surveys, **Mitigation Measure BIO-13: Non-disturbance for Nesting Birds**, **Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-23: Work Window for Northern Spotted Owl**.

Mitigation Measure BIO-23: Work Window for Northern Spotted Owl

The County shall commission two surveys for nesting northern spotted owls during the months of April and May preceding the commencement of construction. At a minimum, the survey area shall include all suitable nesting habitats within 0.25 mile of the project site. If, following the first or second survey, it can be conclusively determined that there are nesting northern spotted owls, construction activities that are within 0.25 mile of an identified active nest shall not begin prior to August 1 unless the young have fledged, at which time construction or staging may begin no earlier than July 10. Regardless of nesting locations, construction shall conclude no later than January 31 (prior to the beginning of the mating and nesting season).

Cooper's Hawk, Rufous Hummingbird, Oak Titmouse, and Yellow Warbler

Less than Significant with Mitigation. Based on the presence of suitable nesting and foraging habitat, Cooper's hawk and rufous hummingbird have a moderate potential to occur within the BSA, while oak titmouse and yellow warbler have a high potential to occur within the BSA.

The project could result in temporary loss or disturbance of special-status bird habitats, or temporarily displacement due to construction noise. The project could also remove or disturb a small amount of unoccupied nesting or foraging habitat, although this impact would be temporary in nature and limited to a relatively small area in relationship to the extensive nesting and foraging habitat adjacent to the BSA.

Given the above, construction impacts to special-status birds would be potentially significant, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-12: Nesting Bird Surveys**, **Mitigation Measure BIO-13: Non-disturbance Buffer for Nesting Birds**, **Mitigation Measure BIO-14: Work Window for Nesting Birds Mitigation Measure BIO-17: Listed Species On-site**.

Nesting Migratory Birds

Migratory bird species may nest anywhere within the BSA except for paved road surfaces and the active channel of San Geronimo Creek. Riparian areas like those found within the BSA are particularly attractive for nesting birds and provide nesting habitat for numerous species.

The project could result in temporary loss or disturbance of nesting migratory bird habitats, or temporarily displacement due to construction noise. The project could also remove or disturb a small amount of unoccupied nesting or foraging habitat, although this impact would be temporary in nature and limited to a relatively small area in relationship to the extensive nesting and foraging habitat adjacent to the BSA.

Given the above, construction impacts to nesting birds would be potentially significant, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-12: Nesting Bird Surveys**, **Mitigation Measure BIO-13: Non-disturbance Buffer for Nesting Birds**, **Mitigation Measure BIO-14: Work Window for Nesting Birds.**

San Francisco Dusky-footed Woodrat

Less than Significant with Mitigation. The San Francisco dusky-footed woodrat has moderate potential to occur within the project site due to the presence of nesting and foraging habitat in the BSA. Project construction could result in destruction or abandonment of San Francisco dusky-footed woodrat middens.[2] This represents potentially significant impact, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring, Mitigation Measure BIO-15: Worker Environmental Awareness Training, Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-24: San Francisco Dusky-footed Woodrat Avoidance, Mitigation Measure BIO-25: San Francisco Dusky-footed Woodrat Midden Removal**.

Mitigation Measure BIO-24: San Francisco Dusky-footed Woodrat Avoidance

If an individual San Francisco dusky-footed woodrat is found during preconstruction surveys, work will not commence until the individual leaves the work area of its own volition.

Mitigation Measure BIO-25: San Francisco Dusky-footed Woodrat Midden Removal

The County shall request a Memorandum of Understanding with CDFW to develop and implement a relocation plan for San Francisco dusky-footed woodrat nests affected by the project.

Pallid Bat, Townsend's Big-eared Bat, and Yuma Myotis

Less than Significant with Mitigation. Due to the presence of suitable foraging and roosting habitat within the BSA, Townsend's big-eared bat and Yuma myotis have a moderate potential to occur within the project site, and pallid bat has a high potential to occur within the project site.

There are no confirmed bat roosting sites present within the BSA, but the riparian corridor surrounding the Mountain View Road Bridge provides suitable foraging habitat. While there are no confirmed bat roosting sites present within the BSA, the current bridge structure may act as a potential roosting site.

Construction impacts to these bat species would be potentially significant. Marin County Code 22.20.040(E) applies protections for roosting bats during outdoor construction activities that involve tree removal during the nesting seasons of March 1 and April 15 or between September 1 and October 15. The project would be required to comply with these measures. Application of Marin County Code 22.20.040(E), in addition to the following mitigation measures would reduce impacts to a less-than-significant level: **Mitigation Measure BIO-2: Biological Monitoring, Mitigation Measure BIO-15: Worker Environmental Awareness Training**, **Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-26: Roosting Bat Surveys**, **Mitigation Measure BIO-27: Construction Activities around Bat Roosts**.

[2] A *midden* is a small pile or nest (as of seeds, bones, or leaves) gathered by a rodent.

Mitigation Measure BIO-26: Roosting Bat Surveys

No more than two weeks prior to tree removal, a qualified biologist shall conduct a pre-construction survey for crevice and cavity roosting habitat within the bridge and in trees within the BSA that are 12 inches or greater in diameter at breast height. Surveys for maternity colonies should be conducted during the summer of the year before the project is scheduled so that any such roosts can be removed/replaced or exclusionary measures can be put in place prior to the onset of the non-volant period.

Mitigation Measure BIO-27: Construction Activities around Bat Roosts

Any area under a confirmed day or night bat roost that is within visual sight of bats shall be designated as an environmentally sensitive area. To minimize impacts to day roosts during the non-volant period when young are present but cannot fly (May 1 to July 31), work shall not occur directly under or adjacent to the roost. To minimize impacts to night roosts, construction activities shall not occur immediately around a roost site between 10:00 PM and sunrise, especially during the period of highest night-roost use from spring to fall.

Clearing of vegetation and grubbing around roosts shall be minimized wherever possible. Combustion equipment (e.g., pumps, generators, vehicles) shall not be used immediately under the roost. The presence of personnel under roost sites shall be minimized, particularly during the evening exodus. Lights shall not be placed in a location where a roost site would be illuminated.

b) Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation. Riparian habitat, including Oregon ash forest/red alder grove (0.28 acre) and bigleaf maple/Oregon ash forest (0.36 acre) may be impacted by the project. Several trees, including Oregon ash and bigleaf maple, on the east and west sides of the existing bridge may require trimming for construction access and in order to accommodate the new bridge height. This project is anticipated to require minimal tree removal, and an estimated total of six trees may need to be removed from the western and southeastern banks. Potential construction impacts to riparian habitat would be addressed through implementation of standard Caltrans BMPs, described above. Nevertheless, construction within riparian habitat represents a potentially significant impact, reduced to a less-than-significant level with implementation of the **Mitigation Measure BIO-28: Tree Surveys.**

Mitigation Measure BIO-28: Tree Surveys

In accordance with project permitting, trees within the project area shall be surveyed to account for construction impacts and appropriate mitigation. The County shall provide tree replacement on-site to the maximum extent possible and an off-site planting strategy shall be developed in coordination with CDFW and RWQCB during the permitting process to address the balance of tree mitigation needs. All riparian trees shall be mitigated at a 3:1 ratio, and all upland trees at a 1:1 ratio.

c) Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant. No wetlands are present within the project site. However, the project would temporarily impact Waters of the US through construction equipment access into the creek channel and the diversion of low creek flow. Approximately 0.038 acre of streambank would be permanently impacted by the placement of RSP to provide stabilization of the banks and prevent scouring at the bridge location. Widening the bridge deck by 3 feet would also increase shading over San Geronimo Creek by 0.003 acre. Potential construction impacts to Waters of the US would be avoided through implementation of Caltrans BMPs, described above. With the incorporation of Caltrans BMPs, this impact would be less than significant.

d) Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Migratory Fish Species

Less than Significant with Mitigation. There are no established wildlife corridors present within the project site. However, as discussed above, San Geronimo Creek may serve as a pathway for migratory fish species such as coho salmon and central California coastal steelhead. The proposed project would temporarily block the migration pathway of these species in the event that they are present. Any potentially significant construction impacts to these species would be reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-1: Preconstruction Surveys**, **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-3: Water Diversion and Dewatering**, **Mitigation Measure BIO-4: Creek Bed and Bank Protection**, **Mitigation Measure BIO-5: Fish and Wildlife Refugia Protection**, **Mitigation Measure BIO-6: Debris Containment**, **Mitigation Measure BIO-7: Restoration and Revegetation, Mitigation Measure BIO-17: Listed Species On-site**, **Mitigation Measure BIO-18: Salmonid Work Period, Mitigation Measure BIO-19: Coho Salmon and Steelhead Critical Habitat and EFH Protection, Mitigation Measure BIO-20: Fish Handling Plan, Mitigation Measure BIO-21: RSP Installation**.

Migratory Bird Species

Less than Significant with Mitigation. As discussed above, the proposed project could result in temporary loss or disturbance of unoccupied habitats that are used by native resident or migratory birds. During project-related construction, common migratory bird species may be temporarily displaced by habitat alteration or disturbed by noise from construction equipment. These impacts would be temporary and limited to a small area relative to the extensive nesting and foraging habitat adjacent to the BSA. Nevertheless, these disturbances represent a potentially significant impact, reduced to a less-than-significant level with implementation of the following mitigation measures: **Mitigation Measure BIO-2: Biological Monitoring**, **Mitigation Measure BIO-12: Nesting Bird Surveys**, **Mitigation Measure BIO-13: Non-disturbance Buffer for Nesting Birds**, **Mitigation Measure BIO-14: Work Window for Nesting Birds Mitigation Measure BIO-17: Listed Species On-site**. **Mitigation Measure BIO-23: Work Window for Northern Spotted Owl**.

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

Less than Significant with Mitigation. Nine different tree species were identified within the BSA; all but one are native to California. The most abundant species identified is the California bay (31 trees), followed by the California buckeye (19 trees). The area immediately surrounding San Geronimo Creek is dominated by bigleaf maple, Oregon ash, and red alder.

Several trees, including Oregon ash and bigleaf maple, on the east and west sides of the existing bridge may require trimming. The proposed project is anticipated to require minimal tree removal, and an estimated total of six trees may need to be removed from the western and southeastern banks for construction access and in order to accommodate the new bridge height. Marin County Code Chapter 22.27, Native Tree Protection and Preservation prohibits the removal of protected trees, including Oregon ash and bigleaf maple. This represents a potentially significant impact, reduced to a less-than-significant level with implementation of **Mitigation Measure BIO-28: Tree Surveys** and **Mitigation Measure BIO-29: Tree Protection**.

> ***Mitigation Measure BIO-29: Tree Protection***
>
> Tree preservation measures including root pruning, cabling, trunk armoring, and monitoring by a licensed arborist shall be incorporated into the project design and implemented during project planning and construction to minimize tree removal and loss in the project area.

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

No Impact. Marin County currently does not have a Natural Community Conservation Plan or Habitat Conservation Plan (CDFW, 2019), and the proposed project site does not fall under the jurisdiction of any other approved local, regional, or state habitat conservation plans. No impact would occur.

Biological Resources References

California Department of Fish and Wildlife (CDFW), 2019. California Natural Community Conservation Plans – April 2019. Available: file://flash/Projects/Consulting%20Services/4111%20Marin%20Bridges/4111.1%20Mt.View/07%20Admin%20Record/Bio/Natural%20Community%20and%20Habitat%20Conservation%20Plans.pdf Accessed: October 2019.

NOAA, 2000. Designated Critical Habitat: Critical Habitat for 19 Evolutionarily Significant Units of Salmon and Steelhead in Washington, Oregon, Idaho, and California. Federal Register, National Archives and Records Administration – 16 Feb. 2000, www.federalregister.gov/documents/2000/02/16/00-3553/designated-critical-habitat-critical-habitat-for-19-evolutionarily-significant-units-of-salmon-and. Accessed: December 2019.

NOAA, 2019. Essential Fish Habitat – 20 Feb. 2019. Available: www.fisheries.noaa.gov/national/habitat-conservation/essential-fish-habitat. Accessed: December 2019.

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?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

GANDA prepared a Historic Property Survey Report (HPSR) in March 2020 to identify potential impacts to cultural resources resulting from the project (GANDA, 2020). The HPSR includes a background literature review and California Historical Resources Information System (CHRIS) records search and an Archaeological Survey Report (ASR) to evaluate built and archaeological cultural resources within the project area.

Impact Discussion

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

No Impact. According to the HPSR, there are two previously recorded historic properties within the project area and one built historic property within a 0.25-mile radius of the project area. One property was investigated for its potential as a built historic resource but was determined to be ineligible for listing in the California Register of Historic Resources because, due to various alterations, it lacks integrity to its period of significance. Therefore, the project would not affect an eligible historic resource pursuant to §15064.5, and no impact would occur.

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

Less than Significant. According to the CHRIS records search and the General Plan, the County contains several known prehistoric archaeological sites. However, there are no previously recorded archaeological sites within the project area (Marin County Community Development Agency, 2014). An archaeological site sensitivity assessment indicated that there is a low to moderate sensitivity for the presence of buried prehistoric archaeological resources within the project site. Ground disturbance associated with project construction could encounter unknown or previously unrecorded archaeological resources. Compliance with Marin County Code Section 22.20.020(D) Archaeological, Historical, and Paleontological Resources, outlined below, would avoid impact to archaeological resources discovered during construction. This impact would be less than significant.

> *Marin County Code Section 22.20.020(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 Marin County Code.

c) Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant. As discussed above, the County contains several known prehistoric archaeological sites. While there are no known prehistoric archaeological sites within the project area, the project could disturb unmarked prehistoric archaeological habitation or burial sites during construction. Compliance with Marin County Code Section 22.20.020(D) would ensure that archaeological resources, including human remains, would not be adversely impacted should they be discovered during construction. This impact would be less than significant.

Cultural Resources References

Garcia and Associates (GANDA), 2020. *Historic Property Survey Report* (HPSR). Accessed: March 2020.

Marin County Community Development Agency, 2014. Marin Countywide Plan. Chapter 4, The Socioeconomic Element, Section 4.13, Historical and Archaeological Resources. Available: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en. Accessed: April 2020.

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

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

Less than Significant. Construction equipment would require the temporary consumption of fuel and energy, but these minor energy demands would represent typical construction usage and would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Once construction is complete, the project would not stimulate new land uses or increase roadway capacity in a way that would encourage the consumption of energy. This impact would be less than significant.

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

No Impact. The County's energy goals are outlined in the Countywide Plan Built Environment Element, Section 3.6, Energy and Green Building (Marin County Community Development Agency, 2007): [3]

- 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 conflict with or obstruct the Countywide Plan's energy goals because it would neither increase energy use nor interfere with the adoption of renewable resources. No impact would occur.

Energy References

Marin County Community Development Agency, 2007. Marin Countywide Plan. Chapter 3, The Built Environment, Section 3.6, Energy and Green Building. Available: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en. Accessed: August 2019.

7 Geology, Soils, and Seismicity

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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐

[3] Several policies fall under these three overall goals, but since these goals are not applicable to the scope of the proposed project, these policies are not listed here.

	iv) Landslides?	☐	☒	☐	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☒	☐	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

a) Would the proposed project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act requires the California Geological Survey (CGS) to delineate active and well-defined fault zones. According to the CGS, the project site is not located within an Alquist-Priolo Earthquake Fault Zone, nor is it located on or immediately adjacent to any known active or potentially active fault (CGS, 2019). The nearest active fault is the San Andreas Fault, approximately 3 miles west of the project site. Because the project site is not located on or immediately adjacent to an active fault, no impact would occur.

ii. Strong seismic ground shaking?

Less than Significant with Mitigation. The project site, along with the entire Bay Area, is dominated seismically by the active San Andreas Fault system. The San Andreas Fault system forms the boundary between the northward-moving Pacific Plate (west of the fault) and the southward-moving North American Plate (east of the fault). In the Bay Area, this movement is distributed across a complex system of subparallel right-lateral strike-slip faults, which include the San Andreas, San Gregorio, Hayward, Rogers Creek, and Calaveras faults, among others. These faults are all considered active or potentially active and capable of producing significant intensities and durations of ground-shaking at the site. Historically, the County has been subject to intense seismic ground shaking and will likely experience seismic events from future earthquakes generated by active faults in the Bay Area.

Recent studies by the United States Geological Survey (USGS) indicate a 63 percent probability of a magnitude 6.7 or greater earthquake in the Bay Area in the next 30 years (USGS, 2008). The intensity of such an event and the severity of ground shaking at the project site would depend on the causative fault and the distance to the epicenter, the depth of the rupture below ground surface, the movement magnitude, and the duration of shaking. A seismic event in the Bay Area could produce very strong ground-shaking at the project site (ABAG, 2013), which could endanger people and facilities in the project site vicinity. This represents a potentially significant impact, reduced to a less-than-significant level through implementation of **Mitigation Measure GEO-1**.

Mitigation Measure GEO-1: Site-Specific Construction Methods and Recommendations

Prior to approval of a demolition plan, a licensed geotechnical engineer shall prepare a design-level geotechnical report outlining site-specific construction methods and recommendations regarding grading activities, fill placement, soil corrosivity/expansion/erosion potential, compaction, foundation construction, drainage control (both surface and subsurface), and avoidance of settlement, liquefaction, differential settlement, and seismic hazards in accordance with current California Building Code requirements including Chapter 16, Section 1613. The report shall require that all subsurface improvements that include any materials susceptible to corrosive effects shall be engineered in conformance with the most recently adopted California Building Code requirements including the use of engineered backfill. The report shall also include stability analyses of final design cut and fill slopes, including recommendations for avoidance of slope failure. The final grading plan shall be designed and constructed in accordance with requirements of the final design-level geotechnical investigation prior to building.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation. Liquefaction susceptibility is a soil's relative resistance to collapse or failure when subjected to ground shaking. Such failures, including localized ground settlement and lateral spreading, can cause significant property damage. According to liquefaction susceptibility maps produced by the ABAG, the risk of liquefaction is very high at the project site (ABAG, 2013). However, site-specific liquefaction hazards at the project site would be addressed by the geotechnical investigation required by **Mitigation Measure GEO-1**. With implementation of this mitigation measure, potential impacts associated with seismic-induced ground failure would be less than significant.

iv. Landslides?

Less than Significant with Mitigation. The project site is partially within a "Mostly Landslide" distribution zone and partially in a zone not yet mapped; it is also within close proximity to a potential debris flow source just south of the project site (ABAG, 2013). This represents a potentially significant impact, reduced to a less-than-significant level through implementation of **Mitigation Measure GEO-1,** where site-specific landslide hazards at the project site would be addressed during an initial geotechnical investigation.

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

Less than Significant. The primary soil properties that influence the erodibility of soil are texture, structure, organic matter content, and permeability. The collective influence of these soil properties on the erodibility of a soil is described as the soil-erodibility factor (K). Soils with

properties that result in a high susceptibility to water erosion have K factors greater than 0.4. The project site has a K factor of 0.1, indicating a low susceptibility of soil to erosion. Project construction would involve ground disturbing activities such as excavation, which could mobilize sediment and cause erosion along the banks of San Geronimo Creek. Excavation for and construction of concrete abutments supported on cast-in-drilled-hole piles would be constructed behind the existing abutments. This work would occur outside of the creek. Construction of the roadway approaches would involve the removal of existing pavement and the placement of fill material, aggregate base and hot mix asphalt pavement. Because of the anticipated relative size of the added impervious area to the overall watershed, the impacts of erosion on receiving waters are anticipated to be minimal.

The potential for adverse effects to water quality would be avoided by implementing temporary and permanent BMPs outlined in **Section 4, Biological Resources**. Caltrans erosion control BMPs would be used to minimize any wind- or water-related erosion. For example, a SWPPP developed for the project would include the following protective measures:

a. No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses.
b. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses.
c. Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses.
d. Dust control will be implemented, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.
e. Coir rolls will be installed along or at the base of slopes during construction to capture sediment and temporary organic hydro-mulching will be applied to all unfinished disturbed and graded areas.
f. Work areas where temporary disturbance has removed the pre-existing vegetation will be re-seeded with a native seed mix.
g. Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.
h. A Revegetation Plan will be prepared for restoration of temporary work areas. Pavement and base will be removed; topography blended with the surrounding area; and topsoil will be salvaged from the new alignment area to be placed over the restored area, which will then be revegetated with native grassland species.

Development of a SWPPP and application of the above protective measures would minimize erosion, and this impact would be less than significant.

c) Would the proposed project 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?

Less than Significant with Mitigation. As stated above, the project site is partially located within a mapped high landslide hazard area and near a potential debris flow source. Additionally, ABAG liquefaction susceptibility maps determine that risk of liquefaction is very high at the project site (ABAG, 2013). Site-specific landslide, liquefaction lateral spreading,

subsidence, liquefaction, or collapse hazards at the project site would be addressed by the geotechnical investigation and recommendations required by **Mitigation Measure GEO-1**, described above. As discussed in **Section II, Project Description**, retaining walls and scour countermeasures consisting of vegetated RSP would mitigate any project impacts pertaining to the lateral spreading and collapse of the San Geronimo Creek Channel. This impact would be less than significant with mitigation applied.

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

Less than Significant. Clay-rich soils tend to expand and contract in response to changes in soil moisture. Soils underneath the project site are generally very gravelly loam, or very gravelly clay loam, which have low to moderate susceptibility to expansion (USDA, 2016). Because these soils are non-expansive, the impact would be less than significant.

e) Would the proposed project 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?

No Impact. The project does not require the use of septic tanks or any other alternative wastewater disposal system. No impact would occur.

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

Less than Significant. According to the Neogene Mammal Mapping Portal, the community of Lagunitas/Forest Knolls does not contain recorded paleontological resources and the project's probability to encounter paleontological resources is low (University of California, 2018). However, ground-disturbing activities could encounter undocumented paleontological resources during project construction. In the event that paleontological resources are discovered during construction, application of Marin County Code Section 22.20.040(D) (described in **Section 5, Cultural Resources**), would reduce this impact to a less-than-significant level.

Geology, Soils, and Seismicity References

Association of Bay Area Governments (ABAG), 2013. Earthquake Hazard Maps for Marin County. Available: www.abag.ca.gov/bayarea/eqmaps/pickcity.html. Accessed: May 2019

California Geologic Survey, 2019. Earthquake Zones of Required Investigation. California Department of Conservation EQ Zapp: California Earthquake Hazards Zone Application. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: May 2019.

University of California Museum of Paleontology, 2018. Neogene Mammal Mapping Portal. Available online: http://www.ucmp.berkeley.edu/neomap/. Accessed: May 2019.

United States Department of Agriculture (USDA) Natural Resources Conservation Service, 2016. Web Soil Survey. Available: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed: May 2019.

United States Geological Survey (USGS), 2008. Uniform California Earthquake Rupture Forecast (UCERF). Available: http://earthquake.usgs.gov/regional/nca/ucerf/. Accessed: May 2019.

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

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

Less than Significant. Global warming associated with the "greenhouse effect" is a process whereby greenhouse gases (GHG) accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global warming and associated climate change are carbon dioxide, methane, nitrous oxide, and fluorinated compounds. GHG emissions contributing to global climate change are attributable to human activities associated with the transportation, industrial and manufacturing, utility, residential, commercial, and agricultural sectors. The target established by the Marin County Greenhouse Gas Reduction Plan is to reduce GHG emissions 15 to 20 percent below 1990 levels by the year 2020 for internal government and 15 percent countywide (Marin County Community Development Agency, 2006).

Bridge demolition and replacement would result in GHG emissions associated with construction equipment usage and vehicle trips to and from the project site. Additionally, a temporary construction detour route (discussed in Transportation) would redirect users of the bridge to an approximately 1-mile-long detour, which would cause a slight increase in vehicle emissions during construction. Construction-related GHG emissions vary depending on the length of the construction period, specific construction activities, types of equipment, and number of personnel. Construction activities include demolition, site preparation, grading, paving, building construction, and application of architectural coatings.

Neither the County nor the BAAQMD has quantified thresholds for construction activities. However, the BAAQMD encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable. BMPs may include, but are not limited to, using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials. Based on the level of expected GHG emissions for a construction project of this magnitude, and with BMPs incorporated, construction-related GHG emissions would not be regionally significant.

Additionally, as discussed in **Section 17, Transportation**, the replaced Mountain View Road Bridge would provide the same access and automobile capacity as the current bridge. There would likely be no significant change in vehicle miles traveled during project operation. Thus, no change in automobile-related operational GHG emissions would occur during project operation. This impact would be less than significant.

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

Less than Significant. Once completed, the bridge would not create new lanes, increase vehicle travel, or lead to land conversions that would result in significant GHG emissions. Therefore, the project would not conflict with the GHG goals set forth in the Marin County GHG Reduction Plan. This impact would be less than significant.

Greenhouse Gas Emissions References

Marin County Community Development Agency, 2007. Marin Countywide Plan. Available here: https://www.marincounty.org/-/media/files/departments/cd/he/cwp_cd2.pdf. Accessed May 2019.

Marin County Community Development Agency, 2006. Marin County Greenhouse Gas Reduction Plan. Available here: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/background-reports/greenhouse_gas_reduction_plan.pdf. Accessed September 2019.

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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐

Would the project:	*Significant or Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less than Significant*	*No Impact*
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Crawford & Associates, Inc. prepared a Hazardous Materials Technical Memo (HTM) in March 2019 to identify potential hazardous material issues associated with the project (**Appendix B**). This memo includes a records review summary and potential hazardous materials issues.

Impact Discussion

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

AND

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

Less than Significant. The HTM identified the following potential hazardous materials sources that should be considered in the future planning of project improvements.

- Building materials - Certain materials associated with bridge replacement may be potentially hazardous. The existing bridge elements, which would be removed as part of the project, are constructed of unpainted steel frame and a wood deck. Asbestos and lead-based paint are not expected to be encountered during demolition, however, if these materials are encountered, they are to be properly surveyed according to the California Code of Regulations (CCR). Adhering to applicable CCRs would ensure that they are properly surveyed.
- Asphalt - Project improvements may include removal of existing asphalt roadway and historical asphalt road sections. Asphalt is not regulated as a hazardous material, but potential contaminants in the asphalt binder require off-site disposal restrictions imposed by the California Department of Resources Recycling and Recovery (CalRecycle). Asphalt removal from the project would be disposed of in accordance with CCR.
- Yellow traffic stripes – Yellow traffic stripes can contain heavy metals, including lead and chromium, at concentrations in excess of the hazardous waste thresholds established by the CCR and may produce toxic fumes when heated. Yellow traffic striping within the project area would require proper disposal, which may include a Class 1 disposal facility. Testing

and removal requirements should be in accordance with Caltrans Standard Special Provision 14-11.07 and 15-2.02C(2).

The issues discussed above would be addressed through the implementation of standard procedures outlined in existing regulations identified. Construction would require implementation of BMPs to comply with the NPDES Project permit. BMPs for construction would include site housekeeping practices, hazardous material storage, inspections, worker training in pollution prevention measures, and containment of releases to prevent runoff via stormwater. Therefore, this impact would be less than significant.

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

No Impact. There are no existing or proposed schools within one-quarter mile of the project site. The nearest school is Lagunitas Elementary School, approximately 1.4 miles away along Sir Francis Drake Boulevard. The project does not include uses or activities that would emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

d) Would the proposed project 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?

Less than Significant. According to the HTM, site reconnaissance and review of regulatory databases maintained by county, state, tribal, and federal agencies determined that the project is not located on a site with hazardous materials violations or discharges. However, three nearby sites were listed on federal and state databases.

- Samuel Taylor Park is listed within 1 mile of the current bridge; however, the actual location is over approximately 3.6 miles northwest of the project on Sir Francis Drake Boulevard. A leaking underground storage tank (UST) was recorded in 1997 that contained gasoline and may have impacted groundwater.
- Samuel P. Taylor State Park, approximately 900 feet east/upstream from the project site, contained a leaking UST in 1992 containing unleaded gasoline.
- Forest Knolls Garage, approximately 0.8 mile from the project site, also contained a leaking UST in 1992. No soil or groundwater contamination was reported, and the case was closed in 1994.

The project site is not located in a groundwater basin and would largely be unaffected by potential contamination coming from one of the three underground storage tanks described above (as discussed in **Section 10, Hydrology and Water Quality**). Because these sites do not pose an immediate threat to the public or the environment during project construction or operation, this impact would be less than significant.

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?

No Impact. The project site is not located within an airport land use plan, nor is it within 2 miles of a public airport or public use airport. The nearest airport is the San Rafael/Marin Ranch airport, a small private airport located approximately 11.8 miles east of the project site. The project would not exacerbate safety hazards or excessive noise for people residing or working in the project area; therefore, no impact would occur.

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

Less than Significant. The Marin County Sheriff's Office of Emergency Services' (OES) Marin Operational Area (OA) Emergency Operations Plan (EOP) addresses large-scale disaster response by ensuring the effective management of emergency operations within the Marin OA. It provides information on the Marin OA emergency management structure and on the activation of Emergency Operations Center (EOC) staff. (OES, 2014). The proposed project would not interfere with the Marin OAEOP insofar as it would not interfere with EOC staff operations in the event of an emergency.

A detour plan would retain access to the community south of Mountain View Road Bridge via a second bridge that crosses San Geronimo Creek along Lagunitas Road approximately 1,000 feet southwest of the project site. This detour plan is approximately 1 mile and would redirect the movement of motorists, pedestrians, emergency services, and bicyclists. Residents would be made aware of the detour, and it will not interfere with the OAEOP because it will facilitate access in and out of the area during construction. This impact would be less than significant.

Hazards and Hazardous Materials References

Marin County Sheriff's Office of Emergency Services (OES), 2014. Marin Operational Area Emergency Operations Plan. Available: https://www.marinsheriff.org/assets/downloads/EOP-Final-Draft-10.14.2014.pdf Accessed: May 2019.

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

Would the project:	*Significant or Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The SWRCB and nine Regional Water Quality Control Boards regulate the water quality of surface water and groundwater bodies throughout California. In the San Francisco Bay Area, including the project site, the San Francisco Bay RWQCB is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region. Runoff water quality is regulated by the NPDES Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by state and federal statutes and regulations. Locally, the NPDES is administered by the RWQCB.

Impact Discussion

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

Less than Significant. According to the RWQCB water quality control plans, any construction activities, including grading, that would result in the disturbance of 1 acre or more would require compliance with the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit). Project construction would involve

approximately 0.61 acre of ground disturbing activities, such as excavation, removal of existing pavement, and vegetation removal. Therefore, the project would not be subject to a NPDES General Construction Permit.

Construction activities have the potential to result in runoff that contains sediment and other pollutants that could degrade water quality if not properly controlled. Sources of pollution associated with construction include chemical substances from construction materials and hazardous materials, such as fuels. A Water Quality Assessment Report (WQAR) completed in September 2019 (WRECO, 2019) identified temporary construction site BMPs to prevent any construction materials or debris from entering surface waters within the project vicinity.

Construction impacts to surface or groundwater quality would be reduced to a less-than-significant level with the implementation of pollution prevention and erosion control BMPs, such as those listed below:

- No discharge of pollutants from vehicle and equipment cleaning are allowed into the water course.
- Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses.
- Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses.
- Concrete must be allowed to cure for 30 days prior to contact with the aquatic environment or stream.
- Dust control would be implemented, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.
- Coir rolls would be installed along or at the base of slopes during construction to capture sediment and temporary organic hydromulching would be applied to all unfinished disturbed and graded areas.
- Work areas where temporary disturbance has removed the pre-existing vegetation would be re-seeded with a native seed mix.
- Graded areas would be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.

The replacement bridge would be wider and longer than the existing bridge. The project would also add minor impervious areas due to the proposed improvements on the bridge approach roadways on Mountain View Road, Sir Francis Drake Boulevard, and Corona Avenue. However, because anticipated traffic and use of these surfaces is not intended to increase once the project is complete, there would not be an increase in polluted runoff. Project operation is not anticipated to increase long-term erosion or sedimentation and would not otherwise impact water quality.

Given the above, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This impact would be less than significant.

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

No Impact. The project site does not overlay a groundwater basin (County of Marin et al., 2019). While the project would add new impervious surface area, this would not interfere with groundwater recharge. No impact would occur.

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

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant. Project construction would contribute to some soil erosion in areas adjacent to the bridge. This significant impact would be reduced to a less-than-significant level with the implementation of the fencing and revegetation BMPs discussed above. This impact would be less than significant with mitigation incorporated.

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

AND

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant. The replacement bridge is proposed to be wider and longer than the existing bridge. The project would also add 0.3 acre of impervious areas due to the proposed improvements on the roadway approaches from Mountain View Road, Sir Francis Drake Boulevard, and Corona Avenue. However, when compared to the 8.7 square miles of watershed draining to the project crossing, impervious areas would not substantially increase the amount of runoff in a manner that would trigger flooding. Because the project would not result in additional vehicle use, there would be no increase in polluted runoff from the bridge. Any project impact from runoff-related flooding would be less than significant.

iv. Impede or redirect flood flows?

Less than Significant. A bridge project has the potential to impede or redirect flows through the imposition of structures that would interfere with flood drainage pathways and channels. Raising the bridge deck by 4 feet would facilitate a larger flow channel, and hydraulic model results from the Floodplain Evaluation Report completed in July 2019 (WRECO, 2019) indicate that the proposed bridge would result in greater flow areas and consequently, a generally lower 100-year water surface elevation. The proposed project would not change the overall land use within the watershed and would not cause significant impacts to flood flow due to increased impervious areas. The impact would be less than significant.

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

Less than Significant. Tsunami hazard mapping for the San Francisco Bay indicate that the project site is not subject to tsunamis (ABAG, 2013; County of Marin, 2019). The project site is in a relatively low-lying area in a semi-urbanized region that is not susceptible to mudflows.

While the project currently lies within a 100-year flood zone, the proposed bridge height would raise the elevation of the bridge above the 100-year floodplain, reducing the risk of flood inundation (WRECO, 2019). Therefore, the project would not pose a greater risk of pollutant release during such events. This impact would be less than significant.

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

Less than Significant. As stated above, the project would not affect groundwater resources. The project site is located within the San Francisco Bay Basin (Region 2) and would be subject to restrictions and controls outlined in the associated Basin Plan that establishes beneficial water uses for waterways and water bodies. As discussed in **Section 4, Biological Resources**, the project would prepare and implement a SWPPP that would prevent construction-related water quality impacts. Given the above, the project would not result in water quality impacts that would interfere with the Basin Plan. This impact would be less than significant.

Hydrology and Water Quality References

Association of Bay Area Governments (ABAG), 2013. Earthquake Hazard Maps for Lagunitas. Available: www.abag.ca.gov/bayarea/eqmaps/pickcity.html. Accessed: January 2020.

County of Marin, 2019. MarinMap: FEMA FloodMap. Available: http://www.marinmap.org/dnn/Applications/FEMAFloodInfo.aspx. Accessed: June 2020.

County of Marin, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, California Department of Water Resources. Groundwater Basin Boundary Assessment Tool. Available: https://gis.water.ca.gov/app/bbat/. Accessed: August 2019.

WRECO, 2019. Mountain View Road Bridge Replacement Project, Marin County, California, Federal-Aid Project No. BRLO-5927(094), Existing Bridge No. 27C0154 Floodplain Evaluation Report.

WRECO, 2019. Mountain View Road Bridge Replacement Project, Marin County, California, Federal-Aid Project No. BRLO-5927(094), Existing Bridge No. 27C0154 Water Quality Assessment Report.

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)?	☐	☐	☐	☒
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?	☐	☐	☒	☐

c)	Result in substantial alteration of the character or functioning of the community, or present planned use of an area?	☐	☐	☒	☐
d)	Conflict with applicable Countywide Plan designation or zoning standards?	☐	☐	☐	☒

a) Would the proposed project physically divide an established community (including a low-income or minority community)?

No Impact. The existing bridge would be replaced in the same location and there would be no change to surrounding roadways or displacement of any residence or business. No new permanent physical or perceptual barriers would be created as a result of the project that would divide an established community. No impact would occur.

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

No Impact. The Countywide Plan includes policies adopted to or mitigate environmental effects, **Table 2** lists applicable Countywide Plan policies and describes the project's consistency. Because the project is consistent with the policies listed in **Table 2**, this impact would be less than significant.

c) Would the proposed project result in substantial alteration of the character or functioning of the community, or present planned use of an area?

Less than Significant. The existing bridge would be replaced in the same location and the project would not substantially alter community character, functionality, or planned use of the area. This impact would be less than significant.

d) Would the proposed project conflict with applicable Countywide Plan designation or zoning standards?

No Impact. The Countywide Plan designates the properties surrounding the project site as General Commercial/Mixed Use, Single-family (1-2 units/acre). These properties are zoned R1-B3 Residential Single Family, H-1 Limited Roadside Business. Bridge and roadway improvements associated with the project would not conflict with the Countywide Plan designation or zoning standards. No impact would occur.

Land Use and Planning References

Marin County Community Development Agency, 2007. Marin Countywide Plan. Available here: https://www.marincounty.org/-/media/files/departments/cd/he/cwp_cd2.pdf. Accessed May 2019.

Table 2 Marin Countywide Plan Policy Consistency Analysis

Countywide Plan Policy	Project Consistency
Biological Resources	
BIO-1.3: Protect Woodlands, Forests, and Tree Removal. The County shall strive to protect large trees, trees with historical importance, and oak woodland habitat, and prevent the untimely removal of trees through implementation of tree preservation ordinance.	**Consistent.** As discussed in **Section 4, Biological Resources**, the project would adhere to the County's tree ordinance and would implement mitigation measures to minimize tree removal and loss in the project area.
Policy BIO-2.1: Include Resource Preservation in Environmental Review. Require environmental review pursuant to CEQA of development applications to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors. Require adequate mitigation measures for ensuring the protection of any sensitive resources and achieving "no net loss" of sensitive habitat acreage, values, and function.	**Consistent.** As discussed in **Section 4, Biological Resources**, the Natural Environment Study (NES) prepared for the project evaluated potential effects to biologic and aquatic resources and developed mitigation measures to reduce impacts.
Policy BIO-2.4: Protect Wildlife Nursery Areas and Movement Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and essential habitat for special-status species, including an assessment of cumulative impacts.	**Consistent.** As discussed in **Section 4, Biological Resources**, San Geronimo Creek serves as a pathway for migratory fish species. Mitigation measures would be applied to ensure that project construction would not permanently block migration pathways.
Policy BIO-2.5: Restrict Disturbance in Sensitive Habitat During Nesting Season. Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.	**Consistent.** As discussed in **Section 4, Biological Resources**, the project would implement mitigation measures to protect nesting birds, such as preconstruction surveys, non-disturbance buffers, and biological monitoring.

Countywide Plan Policy	Project Consistency
BIO-2.6: Identify Opportunities for Safe Wildlife Movement. Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the county.	**Consistent.** As discussed in **Section 4, Biological Resources**, the project would not permanently impede wildlife movement. Implementation of mitigation measures would minimize temporary project effects to wildlife movement during construction.
Policy BIO-2.9: Promote Early Consultation with Other Agencies. Require applicants to consult with all agencies with review authority for projects in areas supporting wetlands and special-status species at the outset of project planning.	**Consistent.** As discussed in **Section 4, Biological Resources,** the County is pursuing consultation with USFWS and NMFS to support the preservation of federally-protected special-status species.
Policy BIO-4.1: Restrict Land Use in Stream Conservation Areas. A SCA is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone. Best management practices shall be adhered to in all designated SCAs. Best management practices are also strongly encouraged in ephemeral streams not defined as SCAs.	**Consistent.** The project site is within the San Geronimo Watershed SCA. As a bridge replacement, the project does not encourage new land uses or development within this SCA that would impact significant resources.
Policy BIO-4.2: Comply with SCA Regulations. Implement established setback criteria for protection of SCAs through established discretionary permit review processes and/or through adoption of new ordinances. Environmental review shall be required where incursion into an SCA is proposed and a discretionary permit is required. In determining whether allowable uses are compatible with SCA regulations, development applications shall not be permitted if the project does any of the following: • Adversely alters hydraulic capacity • Causes a net loss in habitat • Degrades water quality	**Consistent.** As described in **Section 4, Biological Resources** and **Section 10, Hydrology and Water Quality**, the project would not alter hydraulic capacity or degrade water quality and would implement mitigation measures to minimize habitat impacts.

Countywide Plan Policy	Project Consistency
Policy BIO-4.4: Promote Natural Stream Channel Function. Retain and, where possible, restore the hydraulic capacity and natural functions of stream channels in SCAs. Discourage alteration of the bed or banks of the stream, including filling, grading, excavating, and installation of storm drains and culverts. When feasible, replace impervious surfaces with pervious surfaces. Protect and enhance fish habitat, including through retention of large woody debris, except in cases where removal is essential to protect against property damage or prevent safety hazards. In no case shall alterations that create barriers to fish migration be allowed on streams mapped as historically supporting salmonids. Alteration of natural channels within SCAs for flood control should be designed and constructed in a manner that retains and protects the riparian vegetation, allows for sufficient capacity and natural channel migration, and allows for reestablishment of woody trees and shrubs without compromising the flood flow capacity where avoidance of existing riparian vegetation is not possible.	**Consistent.** As described in **Section 4, Biological Resources**, and **Section 10, Hydrology and Water Quality**, the project would implement mitigation measures to promote natural stream channel function. Such measures include RPS to provide stabilization of the banks and prevent scouring, implementation of BMPs to protect and enhance fish habitat, and restoration to retain and protect riparian vegetation.
Policy BIO-4.6: Control Exotic Vegetation. Remove and replace invasive exotic plants with native plants as part of stream restoration projects and as a condition of site-specific development approval in an SCA, and include monitoring to prevent reestablishment.	**Consistent.** As described in **Section 4, Biological Resources**, the project would implement mitigation measures to control invasive plants within the project site and ensure restoration and revegetation.
Policy BIO-4.7 Protect Riparian Vegetation. Retain riparian vegetation for stabilization of streambanks and floodplains, moderating water temperatures, trapping and filtering sediments and other water pollutants, providing wildlife habitat, and aesthetic reasons.	**Consistent.** As described in **Section 4, Biological Resources**, the project would implement mitigation measures to minimize effects to riparian vegetation.
Policy BIO-4.14: Reduce Road Impacts in SCAs. Locate new roads and roadfill slopes outside SCAs, except at stream crossings, and consolidate new road crossings wherever possible to minimize disturbance in the SCA. Require spoil from road construction to be deposited outside the SCA and take special care to stabilize soil surfaces.	**Consistent.** As a bridge replacement, the project does not include new roadways within the SCA.
Water Resources	
Policy WR-1.3: Improve Infiltration. Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site's predevelopment infiltration to reduce downstream erosion and flooding.	**Consistent.** As described in **Section 10, Hydrology and Water Quality**, the project would add new impervious surfaces, but these areas would not substantially affect runoff rates in a manner that would disrupt water infiltration, erosion, or flooding.

Countywide Plan Policy	Project Consistency
Policy WR-2.3: Avoid Erosion and Sedimentation. Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.	**Consistent.** As described in **Section 10, Hydrology and Water Quality**, the project would implement BMPs to ensure erosion control.
WR-2.4 Design County Facilities to Minimize Pollutant Input. Design, construct, and maintain County buildings, landscaped areas, roads, bridges, drainages, and other facilities to minimize the volume of toxics, nutrients, sediment, and other pollutants in stormwater flows, and continue to improve road maintenance methods to reduce erosion and sedimentation potential.	**Consistent.** As described in **Section 10, Hydrology and Water Quality**, the project would implement BMPs to minimize polluted stormwater discharge.
Environmental Hazards	
Policy EH-2.1: Avoid Hazard Areas. Require development to avoid or minimize potential hazards from earthquakes and unstable ground surfaces.	**Consistent.** As described in **Section 7, Geology, Soils, and Seismic Hazards**, the project would implement mitigation measures to minimize potential hazards from strong seismic ground shaking and unstable ground surfaces.
Community Design	
Policy DES-1.2: Protect Rural Character. Ensure that development in rural areas is consistent with local design and scale and does not detract from the open character of the landscape.	**Consistent.** As described in **Section 1, Aesthetics**, the project would conform to the existing visual landscape and quality.
Policy DES-4.1: Preserve Visual Quality. Protect scenic quality and views of the natural environment — including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.	**Consistent.** As described in **Section 1, Aesthetics**, the project would conform to the existing visual landscape and quality.
Transportation	
Policy TR-1.6: Keep Rural Character in West Marin. Maintain roads in West Marin as two-lane routes, with the possible additions of bicycle lanes, turn lanes at intersections, and turnouts for slow-moving traffic.	**Consistent.** The project would not expand existing roadway capacity.

Countywide Plan Policy	Project Consistency
Policy TR-4.2: Recycle and Conserve Energy. Include recycled and energy-conserving materials for road construction and repair, where feasible.	**Consistent.** As described in **Section 8, Greenhouse Gas Emissions**, the project would incorporate BMPs during construction, such as using alternative fuel (e.g., biodiesel, electric) vehicles/equipment for at least 15 percent of the fleet; using at least 10 percent local building materials; and recycling or reusing at least 50 percent of construction waste or demolition materials.
Noise	
Policy NO-1.3: Regulate Noise Generating Activities. 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.	**Consistent**. As described in **Section 13, Noise**, the project would implement BMPs and would adhere to Marin County Code Section 6.70.030 to minimize construction-related noise.
Public Safety	
Policy PS-3.2: Safe Public Structures. Protect public health and safety through appropriate siting and rehabilitation of public facilities.	**Consistent.** The project consists of rehabilitating a functionally obsolete bridge over San Geronimo Creek.
Policy PS-4.1: Regulate and Reduce Hazardous Material Use. Control the use and storage of hazardous materials to minimize their presence in, and potential dangers to, the community and environment.	**Consistent.** As described in **Section 9, Hazards and Hazardous Materials**, the project would implement standard procedures and BMPs to minimize dangers associated with hazardous materials. Such practices include site housekeeping practices, storage, inspections, worker training in pollution prevention measures, and containment of releases to prevent runoff via stormwater.
Historical and Archaeological Resources	
Policy HAR-1.1 Preserve Historical Resources. Identify archaeological and historical resource sites.	**Consistent.** As described in **Section 5, Cultural Resources**, the project's environmental review process included a cultural resource investigation to identify archaeological and historical resources within the project site.
Policy HAR-1.3 Avoid Impacts to Historical Resources. Ensure that human activity avoids damaging cultural resources.	**Consistent.** As described in **Section 5, Cultural Resources**, the project would adhere to Marin County Code policies to minimize impacts to cultural resources.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a) Would the proposed project 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?

AND

b) Would the proposed project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. According to the Countywide Plan map of Mineral Resource Preservation Sites, the project site is not located on a Designated Mineral Resource Preservation Site or County Permitted Mineral Resource Site (Marin County Community Development Agency, 2007). No impact would occur.

Mineral Resources References

Marin County Community Development Agency, 2007. Marin Countywide Plan. The Built Environment, Section 3.7, Mineral Resources, Map 3-5, Location of Mineral Resource Preservation Sites. Available: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en. Accessed: August 2019.

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

a) Would the proposed project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Less than Significant. Noise sources associated with project construction would include excavation, construction truck traffic, and other noises typically associated with a construction site. **Table 3** outlines typical noise levels for construction equipment that could be used at the project site. Based on benchmarks for allowable noise exposure from stationary noise sources in the Countywide Plan, construction noise impacts would be significant where noise from construction activities exceed 70 dBA.

A noise sensitive receptor is a property where frequent outside human use occurs and where a lowered noise level would be beneficial. In this instance, the nearest sensitive receptor is a residence located approximately 270 feet southeast of the project site. Project construction would generate noise that could affect sensitive receptors within the project vicinity. Project construction noise would be temporary and noise levels after construction would remain at current levels.

Table 3 Construction Equipment Noise Levels

Construction Equipment	Maximum Noise Level dBA[1] at 50 feet
Backhoe	78
Compactor (ground)	83
Compressor (air)	78
Concrete Mixer Truck	79

Construction Equipment	Maximum Noise Level dBA[1] at 50 feet
Concrete Pump Truck	81
Crane	81
Dozer	82
Dump Truck	76
Excavator	81
Front End Loader	79
Generator	81
Paver	77
Pneumatic Tools	85
Pumps	81
Roller	80
Scraper	84

Source: FHWA Roadway Construction Noise Model User's Guide, 2006 (FHWA-HEP-05-054).

Note: [1] A-weighted decibels (dBA) are an expression of the relative loudness of sounds as perceived by the human ear.

Marin County Code Section 6.70.030 limits the generation of loud noises (such as the use of backhoes, generators, and jackhammers) on construction sites adjacent to existing development to the hours between 8:00 AM and 5:00 PM Monday through Friday. Other construction noise is limited by Section 6.70.030 to Monday through Friday 7:00 AM to 6:00 PM, Saturday 9:00 AM to 5:00 PM, and prohibited on Sundays and holidays. Furthermore, construction would be required to implement noise BMPs listed below and outlined in Section 14-8.02 of the 2018 Caltrans Standard Specifications. This impact would be less than significant.

Caltrans Standard Specifications Section 14-8.02: Noise Control

Noise Monitoring and Avoidance - If work is necessary outside of allowable hours, the contractor(s) would be required to implement a construction noise monitoring program and, if feasible, provide additional avoidance measures as necessary (in the form of noise control blankets or other temporary noise barriers, etc.) for affected receptors.

Mufflers - The contractor(s) would be required to equip all internal combustion engine equipment with intake and exhaust mufflers that are in good condition and appropriate for the machines.

No Vehicle Idling - Unnecessary idling of internal combustion engines within 100 feet of residences would be strictly prohibited.

Positioning of Construction Equipment - The contractor(s) would be required to locate stationary noise generating equipment as far as possible from sensitive receptors.

Use of More Quiet Equipment - The contractor(s) would be required to utilize "quiet" air compressors and other "quiet" equipment, where such technology exists.

Noise Construction Plan - The contractor(s) would prepare a detailed construction plan identifying the schedule for major noise-generating construction activities and distribute this plan to adjacent noise-sensitive receptors. The construction plan would also list the construction noise reduction measures listed above, as applicable.

Operation

Less than Significant. Once completed, the replaced Mountain View Road Bridge would remain a one-lane bridge and nearby sensitive receptors would not experience increased noise levels due to new or additional automobile traffic. The replaced bridge would have a slight shift in its location (approximately 7 feet east) and height (approximately 4 feet), but these shifts would not move automobile traffic substantially closer to noise-sensitive receptors. Impacts associated with operational noise would be less than significant.

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

Less than Significant. The project does not entail the use of pile drivers, vibratory rollers, or blasting that would generate substantial ground-borne vibration.

Construction-related vibration would be limited to hauling trucks, excavators, and other construction activities that would not result in vibration levels substantial enough to affect sensitive receptors in the project vicinity. This impact would be 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?

No Impact. As discussed in **Section 9, Hazards and Hazardous Materials**, the project site is not within the vicinity of a private airstrip or an airport land use plan and would not involve development of noise-sensitive land uses that would be exposed to aircraft noise. No impact would occur.

Noise References

Federal Highway Administration (FWHA), 2006, FHWA Roadway Construction Noise Model User's Guide (FHWA-HEP-05-054). Available: https://www.fhwa.dot.gov/Environment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: February 2020.

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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Displace existing housing, especially affordable housing?	☐	☐	☐	☒
e) Result in any physical changes which can be traced through a chain of cause and effect to social or economic impacts?	☐	☐	☐	☒

a) Would the proposed project 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)?

No Impact. Because the project would not replace the existing bridge with a significantly wider bridge, or allow for more traffic crossings, it would not indirectly induce population growth in the area. No impact would occur.

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

No Impact. Temporary construction easements would be required from several parcels in order to reconstruct driveways, provide construction access to the creek, and provide construction storage and staging areas. There may be limited timeframes where access to residential properties would be restricted to facilitate raising the profile and constructing driveway conforms, but these residents would be contacted and collaborated with beforehand so that they are either temporarily relocated during this time, or have a way to access their property. No housing would be temporarily or permanently displaced. No impact would occur.

c) Would the proposed project 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?

No Impact. Once construction is complete, the project would maintain the same level of access as the existing bridge and would not stimulate new land uses or increase roadway capacity in a way that would encourage an increase in population density. No impact would occur.

d) Would the proposed project displace existing housing, especially affordable housing?

AND

e) Would the proposed project result in any physical changes which can be traced through a chain of cause and effect to social or economic impacts?

No Impact. Because the project would replace an existing bridge, it would result in minimal physical change to the environment. Change of this magnitude would not result in social or economic effects. 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?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities including roads?	☐	☐	☐	☒

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

i. Fire protection?

ii. Police protection?

iii. Schools?

iv. Parks?

v. Other public facilities including roads?

No Impact. The project does not propose land uses that would induce regional population growth or increase demand for fire services, police protection, schools, parks, or other public facilities. Project implementation would not trigger the need for new or physically altered government facilities. No impact would occur.

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The project would not include residential development that would induce permanent population growth and increase demand for 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?

No impact. The project would not include recreational facilities or require the construction or expansion of recreational facilities that could result in adverse physical effect on the environment. 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?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

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

Less than Significant. Construction workers and vehicles would enter and exit the project site from surrounding roadways during the construction period. Construction-related trips represent a negligible traffic increase, would cease after construction, and would not permanently impact traffic circulation in the area. Because the new bridge would remain one lane, the project would not induce or encourage additional vehicle traffic during operation. Furthermore, the project does not include permanent modifications that would interfere with adopted transit policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This impact would be less than significant.

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

Less than Significant. CEQA Guidelines Section 15064.3 describes specific considerations for evaluating a project's transportation impacts. Generally, VMT is the most appropriate measure of transportation impacts. For the purposes of this section, "VMT" refers to the amount and distance of automobile travel attributable to a project.

As discussed above, construction-related traffic would represent a negligible traffic increase, which would cease after construction ends. The project would replace the existing bridge infrastructure without increasing roadway capacity and would not result in land uses or facilities - such as residences, offices, or parks - that would generate automobile trips. Bridge replacement projects that do not add additional motor capacity are not likely to lead to substantial or measurable increase in VMT, and therefore do not require an induced travel analysis. The County also considers projects that would generate fewer than 110 trips per day to result in a less-than-significant VMT increase, based on guidance from the State (Governor's Office of Planning and Research, 2017). Because the project would not lead to increased VMT

during operation, it would not conflict with CEQA Guidelines section 15064.3(b). This impact would be less than significant.

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

AND

d) Would the proposed project result in inadequate emergency access?

Less than Significant. The project would replace a bridge in generally the same layout and configuration as the existing system and would not introduce new permanent design elements that would increase safety hazards.

During project construction, Mountain View Bridge would be closed and Sir Francis Drake Boulevard would have traffic controls and detours in effect. Mountain View Road would remain accessible via Lagunitas Road, located approximately 1,000 feet west of Mountain View Road. Sir Francis Drake Boulevard would be shifted approximately six feet to the north to provide contractor staging areas along the south shoulder of Sir Francis Drake Boulevard near the project site. This shift would be accompanied by a detour plan that would provide adequate emergency access in the meantime.

There may be limited timeframes where access to residential properties would be restricted to facilitate raising the profile and constructing driveway conforms. These residents would be contacted and collaborated with beforehand to ensure that they are either temporarily relocated or have means of exiting their property during an emergency. Because the project would not result in inadequate emergency access, this impact would be less than significant.

Transportation References

California Governor's Office of Planning and Research, 2017. Technical Advisory on Evaluating Transportation Impacts in CEQA. Available: https://opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed June 2020.

18 Tribal Cultural Resources

Would the project:	*Significant or Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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)?	☐	☐	☒	☐
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.	☐	☐	☒	☐

Discussion

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

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

OR

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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.

Less than Significant. As established by subdivision (c) of Public Resources Code Section 5024.1, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in

the national, state, or local register of historical resources. Additionally, a tribal cultural resource may also be a resource that the lead agency determines, in its discretion, is a tribal cultural resource.

The Sacred Lands File, operated by the Native American Heritage Commission (NAHC), is a confidential set of records containing places of religious or social significance to Native Americans. NAHC prepared a Sacred Lands File search for the project site on February 22, 2019. The NAHC response on March 4, 2019 indicated that no known Native American cultural resources exist within the project vicinity. The NAHC results noted, however, that the absence of specific site information in the Sacred Lands File does not indicate the absence of Native American cultural resources in the project vicinity.

To help determine whether a project may cause a substantial adverse change in the significance of a tribal cultural resource, the County contacted the Native American tribes traditionally and culturally affiliated with the geographic area of the project (GANDA, 2020). Pursuant to Assembly Bill 52, on April 4, 2019, the County notified the Federated Indians of Graton Rancheria and Ione Band of Miwok Indians about the project and opportunity to consult with the County regarding potential tribal resources within the project vicinity. The correspondence contained information about the project; an inquiry for any unrecorded Native American cultural resources or other areas of concern within or adjacent to the project site; and a solicitation of comments, questions, or concerns with regard the project. The County did not receive any substantive comments or information from this correspondence.

According to the Countywide Plan, there are 630 recorded archaeological sites in the County, which include settlements and villages, hunting camos, quarries, rock art, and trails associated with Native American habitation (Marin County Community Development Agency, 2014). However, no previously recorded prehistoric cultural sites were identified within 0.25 mile of the APE. It is unlikely that project activities would disturb an unknown tribal cultural resource.

As discussed in **Section 4.5 Cultural Resources**, the CHRIS records search did not identify archeological or historic architectural resources in the project vicinity. However, given that there are recorded archaeological sites in the County, it is possible that the project could disturb unmarked prehistoric archaeological or Native American burial sites during construction. Marin County Code Section 22.20.040(D), described above in **Section 4.5 Cultural Resources**, would ensure adequate protection of these resources, if encountered, during construction. This impact would be less than significant.

Tribal Cultural Resources References

Garcia and Associates (GANDA), 2020. Historic Property Survey Report (HPSR). Accessed: March 2020.

Marin County Community Development Agency, 2014. Marin Countywide Plan. Chapter 4, The Socioeconomic Element, Section 4.13, Historical and Archaeological Resources. Available: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update_r.pdf?la=en. Accessed: April 2020.

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?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion

a) Would the proposed project 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?

Less than Significant. Because the project does not include uses that would increase demand for utility services, there would be no expanded services at the project site. During construction, existing overhead electric lines, communication lines, utility poles, and a fire hydrant would be relocated within the project site. In addition, an existing waterline that is supported on the existing bridge would be removed and relocated onto the proposed bridge. Because these relocations would occur within the project footprint in areas already being used by these utilities, no additional environmental effects are anticipated. This impact would be less than significant.

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

Less than Significant. Project operation would not require water supply because the replacement bridge does not require water use. Project construction would temporarily require water for activities including dust management and vehicle cleaning, but this water demand would end after the construction period and would be negligible in the context of regional water supply. This impact would be less than significant.

c) Would the proposed project 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?

Less than Significant. The project does not include residential, industrial, or commercial elements that would generate wastewater. Therefore, the project would not require new or expanded wastewater facilities. This impact would be less than significant.

d) Would the proposed project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

AND

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

Less than Significant. Operation of the project would not generate solid waste because the new bridge would not generate activity that would require solid waste disposal. Project construction would require disposal of demolition debris generated by removal of the existing bridge, vegetation from grubbing and tree removal, and sediment from grading or dredging within San Geronimo Creek. The materials accumulated from these activities would be disposed of in a landfill, such as the Mill Valley Refuse Service.

Considering the solid waste from construction of the project represents a small proportion of remaining landfill capacity at local landfills, there is adequate existing landfill capacity to dispose of construction waste. This impact would be less than significant.

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

The California Department of Forestry and Fire Protection (CAL FIRE) identifies fire hazards based on relevant factors such as fuels, terrain, and weather. The project site is located within the State Responsibility Area (SRA) and within a Moderate Fire Hazard Safety Zone (FHSZ).

However, a High FHSZ surrounds the project area on the north, south, and west sides less than a mile away. The nearest Very High FHSZ is located on the other side of Kent Lake, approximately 1.45 miles to the south.

Discussion

a) Would the proposed project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. This bridge replacement project would not house or contain occupants. Bridge users are transient and would not be exposed to wildfire threats. The bridge replacement would not change travel patterns in a way that would exacerbate wildfire risks. No impact would occur.

b) Would the proposed project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant. The project would replace existing utility infrastructure, including PG&E power lines, a water line, and a fire hydrant. The County would coordinate with applicable utility providers to minimize service interruptions during relocation of these utilities, but the project does not entail the installation of new facilities that would exacerbate fire risks. This impact would be less than significant.

c) Would the proposed project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant. The proposed project would alleviate existing flood hazards by raising the bridge deck and removing abutments from the creek. Because the project would replace an existing structure, and not introduce new structures to the landscape, project occupants and the community surrounding the project site would not be exposed to significant flood or landslide risks resulting from runoff, post-fire slope instability, or drainage changes. This impact would be less than significant.

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

Less than Significant. During construction, construction workers who would be on-site would be potentially exposed to dangers related to wildland fires. However, this would only be temporary, and people and structures would not be exposed to increased risk of loss, injury or death due to wildland fires after construction. This impact would be less than significant.

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:	***Significant or Potentially Significant Impact***	***Less Than Significant Impact with Mitigation Incorporated***	***Less than Significant***	***No Impact***
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒
d)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☐	☒

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation. As discussed in **Section 4, Biological Resources**, project implementation could impact special-status species or other protected biological resources. However, these impacts would be reduced to a less-than-significant level with application of mitigation measures. The project would not 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, reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in **Section 5, Cultural Resources**, there are no known cultural resources within the project site that could be damaged as a result of project implementation, and the project would be required to comply with Marin County Code Section 22.20.040(D) to minimize potential impacts to undiscovered cultural resources, should they exist within the project site.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant with Mitigation. The project would result in potentially significant project-level impacts related to biological resources and geology, soils, and seismicity. All other impacts of the project were determined either to have no impact or to be less than significant without the need for mitigation. Mitigation measures outlined within this Initial Study shall be implemented to reduce project impacts to a less-than-significant level. As such, the project would not result in any significant impacts that would substantially combine with impacts of other current or foreseeable future projects.

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

No Impact. Project implementation would replace the existing Mountain View Bridge with a new bridge of similar attributes and would not result in significant unavoidable impacts. Mitigation measures identified herein would reduce all potential impacts to a less-than-significant level. Therefore, the project would not result in impacts that would cause substantial direct or indirect adverse effects on human begins. There would be no impact.

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

No Impact. The project does not, nor does it intend to, have the potential to achieve short-term environmental goals that would disadvantage the achievement of long-term environmental goals. No impact would occur.

VII. 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 August 4, 2020

Rachel Reid, Environmental Planning Manager Date