Appendix B:

Biological Resources Supporting Information

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FCS
An ADEC Innovation

Aquatic Resources Delineation Report

Fournier Road Improvement Project

Mariposa County, California

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1 - INTRODUCTION

At the request of Mark Thomas & Company, Inc., FirstCarbon Solutions (FCS) completed a delineation of aquatic resources and proposes a jurisdictional determination for the 3.28-acre Survey Area as depicted on Exhibits 1 to 4.

The purpose of this report is to support jurisdictional determinations by the United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB); to support California Department of Fish and Wildlife (CDFW) evaluation pursuant to Fish and Game Code Sections 1602, *et seq*. (Streambed Alteration Program); and to support the project applicant's planning and permitting efforts for the proposed Fournier Road Improvement Project (proposed project).

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2 - ENVIRONMENTAL SETTING

2.1 - Location

The 3.28-acre Survey Area is located within the central portion of the Town of Mariposa, south of California State Route (SR) 49 and north of Mariposa Creek. The Survey Area is centered around 37°29'30.73"N and 119°58'34.59"W. The location of the Survey Area within the central portion of Mariposa County is shown on Exhibit 1, and the Survey Area boundaries on a recent high-resolution aerial image are shown on Exhibit 2.

2.2 - Vegetation and Land Cover Types

Much of the Survey Area is developed, including paved roadways, a cemetery, residential development, and an unnamed dirt access road. Vegetation adjacent to the developed parts of the Survey Area is a combination of oak-pine woodland and annual grassland. The vegetation in the southwest portion of the Survey Area surrounding Mariposa Creek and the Fournier Road crossing consists of willow riparian woodland.

Tree species present within the oak-pine woodland include interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), gray pine (*Pinus sabiniana*), incense cedar (*Calocedrus decurrens*), and tree of heaven (*Ailanthus altissima*), with toyon (*Heteromeles arbutifolia*) and buck brush (*Ceanothus cuneatus*) in the understory. Species present within the annual grassland include wild oat (*Avena sp.*), soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Italian rye grass (*Festuca perennis*), Medusa head (*Elymus caput-medusae*), great valley gumweed (*Grindelia camporum*), Heermann's tarweed (*Holocarpha heermannii*), common St. John’s Wort (*Hypericum perforatum*), streambank springbeauty (*Claytonia parviflora*), miner's lettuce (*Claytonia perfoliata*), crane's bill geranium (*Geranium molle*), and canyon nemophila (*Nemophila heterophylla*). The dominant species in the willow riparian woodland is red willow (*Salix laevigata*), with some gray pine and interior live oak overlapping at the edge of the Mariposa Creek stream bank. Species present in the understory include Himalayan blackberry (*Rubus armeniacus*), broadleaf cattail (*Typha latifolia*), tall flatsedge (*Cyperus eragrostis*), orchard grass (*Dactylis glomerata*), rabbitsfoot grass (*Polypogon monspeliensis*), broadleaf cattail (*Typha latifolia*), rough cockleburr (*Xanthium strumarium*), white sweetclover (*Melilotus albus*), and bird's eye speedwell (*Veronica persica*).

Vegetation associated with drainage channels is described for each feature in more detail, below.

2.3 - Topography and Hydrogeomorphology

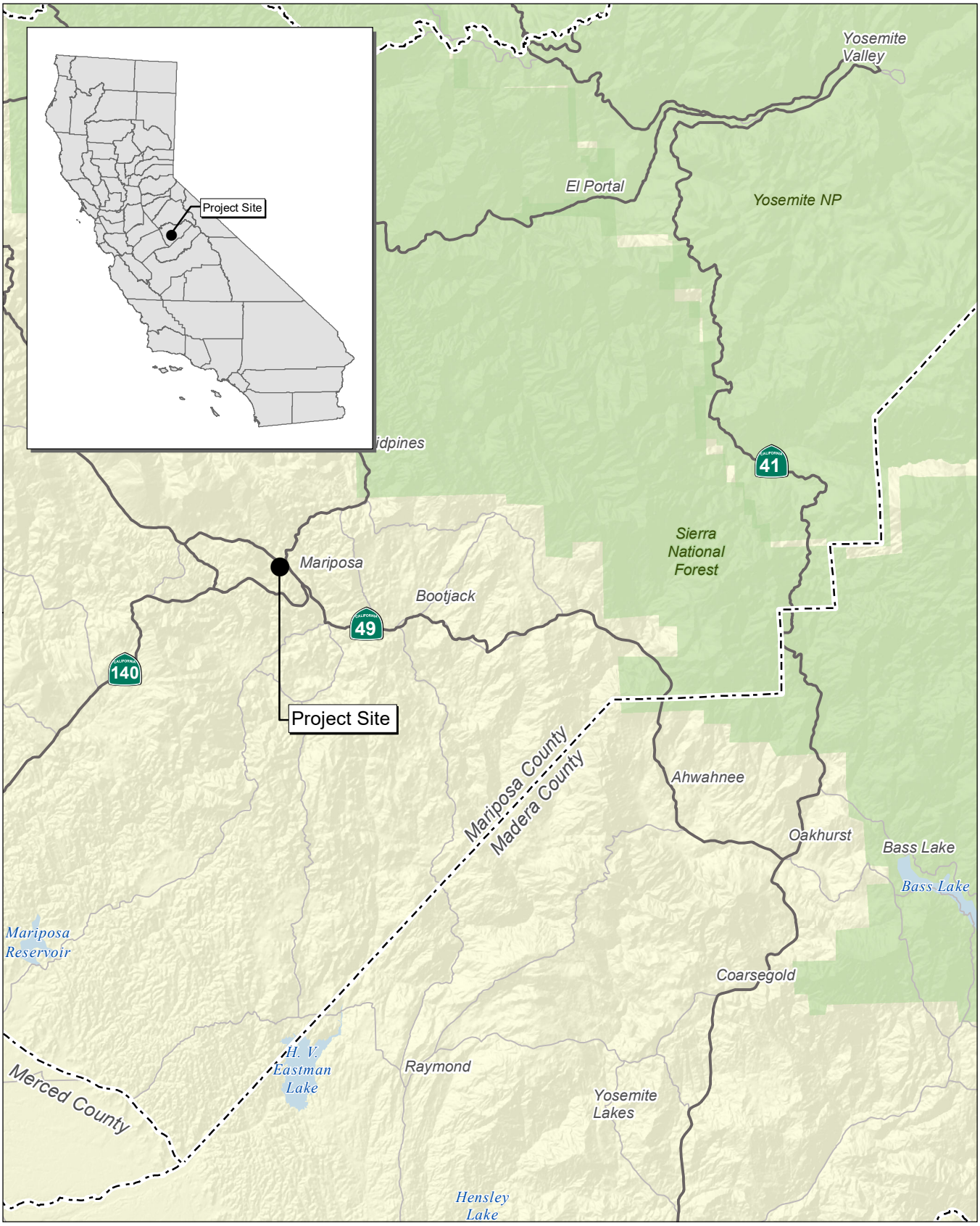
Elevation within the Survey Area ranges from 1,985 feet above mean sea level (AMSL) on the southwestern boundary to 2,045 feet AMSL along the northeastern boundary. Elevations along the western and eastern boundaries are approximately 2,009 and 2,030 feet AMSL, respectively. A slight elevation deficit occurs on the southern boundary of the Survey Area where Mariposa Creek

intersects with Fourier Road. Existing topography indicates that the Survey Area generally drains direct precipitation and outflow from culverts to the southwest and into Mariposa Creek, a tributary of the San Joaquin River, through a network of roadside ditches and ephemeral drainages.

2.4 - Soils

The majority of the Survey Area is mapped by Natural Resources Conservation Service (NRCS) as Loafercreek-Bonanza complex (Exhibit 3). The Loafercreek-Bonanza complex is a well drained soil with a restrictive paralithic bedrock layer 20–39 inches deep and a restrictive lithic bedrock layer 20–49 inches deep. The parent material for this soil is colluvium over residuum derived from metavolcanics. The Loafercreek-Bonanza complex is not classified as a hydric soil. The remaining components of the Survey Area is mapped as riverwash and tailings complex (Exhibit 3). The riverwash and tailings complex is a well drained soil without a restrictive layer that is approximately 0–24 inches above the water table. The parent material for this soil is mixed alluvium. The riverwash and tailings complex mapped is classified as a hydric soil.[1]

[1] United States Department of Agriculture (USDA), Natural Resources Conservation Service. 2023. Web Soil Survey 3.3.2. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed February 10, 2025.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

5 2.5 0 5
Miles

Exhibit 1
Regional Location Map

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Source: Google Earth Pro Aerial Imagery, 06/23/2024. Mark Thomas, 01/2025

150 75 0 150
Feet

Exhibit 2
Local Vicinity Map

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Source: Google Earth Pro Aerial Imagery, 06/23/2024. Mark Thomas, 01/2025. USDA Soils Data, Mariposa County Area.

140 70 0 140
Feet

Exhibit 3
Soils Map

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3 - REGULATORY SETTING

3.1 - Federal

3.1.1 - Clean Water Act

Section 404

The agencies are in receipt of the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency.* In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in the *Sackett* case. In *Sackett,* the Supreme Court adopted the *Rapanos* plurality's test for adjacent wetlands: only those wetlands with a continuous surface connection to other regulated waters, such that the two are indistinguishable.

The USACE administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States of the CWA, the USACE regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. Waters which are:
    a. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    b. The territorial seas; or
    c. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraphs (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
    a. Waters identified in paragraph (a)(1) of this section; or
    b. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

The following are not "waters of the United States":

1. Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with United States Environmental Protection Agency (EPA);
3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;
5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

“Wetland” refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401

Section 401 of the CWA states that “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.” Therefore, before the USACE will issue a Section 404

permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB.

3.2 - State

3.2.1 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)). In 2019, the California State Water Resources Control Board (State Water Board) published the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) to guide wetland waters of the State determinations and the permitting process.[2]

3.2.2 - California Fish and Game Code

Sections 1600–1617 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions in the Notification and, if necessary, prepares a Lake or Streambed Agreement that includes measures to protect fish and wildlife resources.

[2] California State Water Resources Control Board (State Water Board). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. October 20, 2023.

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4 - METHODS

FCS Senior Biologist Robert Carroll, assisted by FCS Botanist Juliet Simpson, surveyed the Survey Area on February 3, 2025, as described in the following section.

4.1 - Wetlands

The presence/absence of wetlands was determined based on the requirements of the Corps of Engineers Wetlands Delineation Manual and revised procedures in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.[3,4] These procedures include standards that define wetlands, including specific saturation and/or ponding regimes, and evaluate hydrophytic vegetation, hydric soils, and wetland hydrology. Wetland indicator status of vegetation follows the 2018 National Wetland Plant List for the Arid West Region.[5]

4.2 - Drainage Channels and Tributaries

Drainage channels were characterized through presence/absence of bed, bank, and OHWM; hydrology; and hydrological connectivity. The OHWM is determined and characterized using definitions and guidance of A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States.[6] A discussion of what constitutes a potentially jurisdictional "tributary" pursuant to *Sackett* and which features, such as ditches or ephemeral drainages, may be excluded from the definition of waters of the United States is provided in Section 5, below.

Culverted drainage sections were examined for evidence of concentrated flow, including presence of water stains, mineral or sediment deposits, and biofilm.

4.2.1 - Definitions of Hydrological Regimes

An ephemeral stream is defined as a watercourse that carries only surface runoff and flows during and immediately after periods of precipitation. An intermittent stream is defined as a watercourse that is temporally intermittent or seasonal and that flows during the wet season, continues to flow after the period of precipitation, and ceases surface flow during at least part of the dry season. Intermittent streams are typically shown as a dashed blue line on United States Geological Survey (USGS) quadrangle maps.

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[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1.

[4] United States Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28.

[5] The National Wetland Plant List–Arid West Version 1. 2018. United States Army Corps of Engineers.

[6] Lichvar, R.W. and S.M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.

A perennial stream is a watercourse that flows throughout the year. Riparian vegetation is defined as vegetation associated with a watercourse and relying on the higher level of water provided by the watercourse. Riparian vegetation can include trees, shrubs, and/or herbaceous plants.

4.3 - Additional Background Information Review

Additional relevant information about the Survey Area was reviewed, including current and historical aerial imagery, the Watershed Assessment, Tracking and Environmental Results System (WATERS), the EPA's National Hydrography Data Set Plus (NHDPlus Version 2), the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI),[7] and the NRCS Web Soil Survey and Climate Analysis for Wetlands (WETS).[8,9,10] Specifically, the standard NRCS WETS analysis includes a weighted comparison of historical rainfall to observed rainfall for the 3-month period before a wetland delineation field survey in order to evaluate if abnormal rainfall patterns may have contributed to observed presence or absence of wetland indicators.[11] The WETS analysis is based on data from the nearest WETS-listed station with a robust data set (e.g., over 30 years of precipitation data) located at the South Yosemite Entrance. Additionally, the United States Drought Monitor data for Mariposa County was incorporated into the analysis.

[7] United States Fish and Wildlife Service (USFWS). National Wetland Inventory. Website: https://www.fws.gov/wetlands/data/mapper.html. Accessed February 2025.

[8] United States Environmental Protection Agency (EPA). Watershed Assessment, Tracking and Environmental Results System (WATERS) Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed February 2025.

[9] United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey 3.3.2. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed February 2025.

[10] United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 1997. Part 650 Engineering Field Handbook - Chapter 19: Hydrology Test for Wetland Determination.

[11] Ibid.

5 - RESULTS

The following section describes the results of both the background research and analysis and the results of the protocol-level delineation field work. Representative photographs of current site conditions are included in Appendix A.

5.1 - Climatic Conditions

Results of the WETS analysis (Appendix B) indicate that conditions during the delineation survey were normal for 2 months and drier than normal for 1 month prior to the delineation. The last rain event prior to the delineation occurred in January 2025, with an accumulated precipitation volume of 0.86 inch for the month, based on data of the nearest publicly available weather station located in Yosemite. Mariposa County has not experienced drought conditions throughout 2024, and the United States Drought Monitor ranked the conditions in Mariposa County as None.

5.2 - Aquatic Resources

Aquatic resources are shown in Exhibit 4. Dimensions of all aquatic resources occurring within the Survey Area boundary are presented in Table 1 and described in more detail below.

Table 1: Summary of Aquatic Resources Within the Survey Area

Type	Segment ID	Length (linear feet)	OHWM Width (feet)	Area (square feet)	Area (acre)
Open Drainage Channel	2-1	181	1	181	0.004
Open Drainage Channel	2-5	422	1	422	0.009
Sum Open Drainage Channels	**–**	**603**	**n/a**	**603**	**0.013**
Culvert Pipe	1-1	20	0.5	10	0.0002
Culvert Pipe	2-2	41	0.5	21	0.0004
Culvert Pipe	2-3	30	0.5	15	0.0003
Culvert Pipe	2-4	38	1	38	0.0008
Culvert Pipe	3-3	25	1.5	38	0.0008
Sum Culvert Pipes	**–**	**154**	**n/a**	**122**	**0.0025**
Mariposa Creek (OHWM)	3-1	93	11.60	1,079	0.02
Mariposa Creek (OHWM)	3-2	90	12.60	1,133	0.03
Mariposa Creek (OHWM)	3-4	87	10.75	936	0.02
Sum Mariposa Creek (OHWM)	**–**	**270**	**n/a**	**3,148**	**0.07**

Type	Segment ID	Length (linear feet)	OHWM Width (feet)	Area (square feet)	Area (acre)
Sum All Potentially Jurisdictional Waters	**–**	**1,027**	**n/a**	**3,873**	**0.08**

Notes:
OHWM = ordinary high water mark

5.2.1 - Open Drainage Channels

The following is a description and discussion of all observed open drainage channel segments. Dimensions of each segment are listed in Table 1, and locations are shown on Exhibit 4. A definition of ephemeral and intermittent flow regimes is provided in Section 4.2.1.

Ephemeral Drainage Segment 2-1

Drainage Segment 2-1 is an ephemeral drainage in the center of the Survey Area that conveys flows east to west along the south side of Fournier Road. This segment receives input from Culvert Segments 2-2 and 2-3 and drains direct precipitation from the northeast area of the Survey Area. This drainage segment is characterized by a small bed and shallow but sharply cut banks. The OHWM is characterized by scour and sediment deposits. At the time of the survey, no standing or flowing water was present but there was moisture present within the soil. The OHWM had a rocky bed and was mostly devoid of vegetation, with the exception of some canyon nemophila (no wetland ranking). The banks of this segment were either bare ground and leaf litter or covered in emergent moss and annual grass seedlings that could not be identified at this early stage. Evidence of seasonal surface flows included cut bank sides and leaf litter on the upstream side of large rocks in the drainage bed. This drainage segment begins in oak-pine woodland under a canopy of interior live oak and gray pine and ends in annual grassland. Segment 2-1 provides ephemeral flows from Culvert Segments 2-2 and 2-3 through Culvert Segment 2-4 and into Ephemeral Drainage Segment 2-5 in the center of the Survey Area.

Ephemeral Drainage Segment 2-5

Drainage Segment 2-5 is an ephemeral drainage in the southwest half of the Survey Area that conveys flows northeast to southwest between Fournier Road to the north and the unnamed access road to the south. This segment receives input from Ephemeral Drainage Segment 2-1/Culvert Segment 2-4 and an unnamed culvert emanating from Mariposa Cemetery and drains direct precipitation from the southwest half of the Survey Area. This drainage segment is characterized by a shallow, wide bed and banks for much of this reach, with some areas where the bed is narrowed and the banks are heavily cut. The OHWM is characterized by scour and sediment deposits. At the time of the survey, no standing or flowing water was present but there was moisture present in the soil. The OHWM was covered in sediment and leaf litter as a result of season sheet flows and was mostly devoid of vegetation in the northeast section; however, farther downstream in the OHWM was Himalayan blackberry (facultative), curly dock (*Rumex crispus*; facultative) and a red willow tree. The banks of this segment were covered in emergent annual grass seedlings with some patches of

miner's lettuce (facultative), streambank springbeauty (facultative upland), greater periwinkle (*Vinca major*; facultative upland), American wild carrot *(Daucus pusillus*; no wetland ranking), and gold back fern (*Pentagramma triangularis*; no wetland ranking). Evidence of seasonal surface flows included recent surface flow sediment and leaf litter at the beginning of this drainage segment and newly forming moss growing on in the bed and banks along the channel. This drainage segment begins in annual grassland, travels through oak-pine woodland under a canopy of interior live oak, blue oak, and gray pine, and ends in red willow riparian woodland. Segment 2-5 conveys ephemeral flows into the eastern reach of Mariposa Creek (Segment 3-4) in the southeastern half of the Survey Area.

Mariposa Creek (Segments 3-1, 3-2, and 3-4)

Mariposa Creek is a blue-line perennial creek that flows northwest to southeast through the southern end of the Survey Area through a culvert under Fournier Road. At the time of the survey flows had overtopped the culvert and flowing water was present on Fournier Road (Appendix A). Within the Survey Area, Mariposa Creek receives input from Ephemeral Drainage Segment 2-5 and drains direct precipitation from the southwest portion of the Survey Area. This creek is characterized by a deep bed that is split into two channels upstream of the Fournier Road crossing and a single channel downstream of the crossing. The streambanks are high on the northeast side of the creek and covered in woodland but are moderately low and covered in brambles on the southwest side. The OHWM is characterized by leaf and sediment deposits. The OHWM was mostly devoid of herbaceous vegetation; however, there were some plants along the edges, including broadleaf cattail (obligate), rabbitsfoot grass (facultative wetland), clustered dock (*Rumex conglomeratus*; facultative wetland), and bird's eye speedwell (no wetland rating), and there were mature red willow trees scattered throughout. Species present within the low banks near the water included tall flatsedge (facultative wetland), Himalayan blackberry (facultative), rough cockleburr (facultative), and white sweetclover (no wetland rating). This creek travels through red willow riparian woodland within the Survey Area.

5.2.2 - Culvert Pipes

Culvert Segment 1-1

Culvert Segment 1-1 is a culvert pipe in the northeast area of the Survey Area that drains direct precipitation from an off-site pathway in Mariposa Cemetery. This culvert segment is a 12-inch metal corrugated culvert that is mostly filled with leaf litter and debris; however, some water is still able to flow through it. Sample Point #2 was taken just downhill of Culvert Segment 1-1 outflow.

Culvert Segment 2-2

Culvert Segment 2-2 is a culvert pipe in the center of the Survey Area that drains direct precipitation from a small section along the north side of Fournier Road, under the road, and into Ephemeral Drainage Segment 2-1. This culvert segment begins with a covered vertical 36-inch metal corrugated culvert and ends in a horizontal 36-inch metal corrugated culvert that was partially filled with sediment.

Culvert Segment 2-3

Culvert Segment 2-3 is a culvert pipe in the center of the Survey Area, just west of Culvert Segment 2-2, that drains direct precipitation from a small section along the north side of Fournier Road, under the road, and into Ephemeral Drainage Segment 2-1. This culvert segment begins with a 36-inch metal corrugated culvert and ends in a 36-inch metal corrugated culvert that was half filled with sediment, leaf litter, and grass seedlings.

Culvert Segment 2-4

Culvert Segment 2-4 is a culvert pipe in the center of the Survey Area that conveys flows from Ephemeral Drainage Segment 2-1 southwest under the unnamed dirt access road and into Ephemeral Drainage Segment 2-5. This culvert segment begins with a 24-inch metal corrugated culvert that appeared to be partially damaged and slightly blocked by leaf litter and ends in a horizontal 24-inch metal corrugated culvert that had some remnant leaf litter from recent flows.

Culvert Output

This culvert output is a culvert pipe in the southeast area of the Survey Area that drains direct precipitation from off-site pathways in Mariposa Cemetery and travels under the unnamed access road and into Ephemeral Drainage Segment 2-5. This culvert segment is a 24-inch metal corrugated culvert that emerges from under the unnamed access road and empties approximately four feet above the ground. The culvert input likely originates east within the Mariposa Cemetery.

5.3 - United States Fish and Wildlife Service National Wetland Inventory

The USFWS NWI did not depict any potential wetlands within the Survey Area, although Mariposa Creek in the southwest portion of the Survey Area is mapped as a seasonally flooded, riverine system.[12] However, per the NWI, determinations are only made based on high altitude imagery, and according to the NWI Data Limitations information, “a margin of error is inherent in the use of imagery; thus, detailed on the ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.” Additionally, the USFWS clarifies that NWI mapping is not adequate to be used to establish regulatory boundaries or jurisdiction.

The lack of NWI-mapped wetlands does not necessarily indicate the Survey Area is devoid of actual existing jurisdictional wetlands, if confirmed on the ground through protocol-level delineation field work. Therefore, FCS established two wetland sample points within areas that contained hydrologic indicators (Appendix C; SP-1 and SP-2). The results demonstrate that the areas do not meet the USACE definitions of a wetland. Specifically, theses areas lack the required combination of sufficient hydrophytic vegetation and hydric soil indicators, despite having evidence of wetland hydrology. The

[12] United States Fish and Wildlife Service (USFWS). National Wetland Inventory (NWI). Website: https://www.fws.gov/wetlands/data/mapper.html. Accessed February 2024.

absence of wetland indicators was not caused by abnormally dry conditions because the delineation was conducted following a period of normal aggregate rainfall, as demonstrated by the WETS analysis (see Section 5.1 and Appendix B). The survey was conducted during the height of the rainy season, which likely contributed to the presence of wetland hydrology in those areas.

Additionally, linear wetland/water features shown by NWI within the Survey Area are somewhat inconsistent with conditions on the ground as established through the protocol-level wetland/water delineation presented here and are therefore used as another resource considered to determine location and extent of potential jurisdictional aquatic resources.

5.4 - Proposed Jurisdictional Determination

5.4.1 - Proposed United States Army Corps of Engineers Jurisdiction

As described in Section 3.1, the final "Revised Definition of Waters of the United States" rule was published in the Federal Register on January 18, 2023, and became effective March 20, 2023. On May 25, 2023, the U.S. Supreme Court issued a decision in the case of *Sackett v. Environmental Protection Agency*. This decision determined that areas of federal jurisdiction under Section 404 of the CWA must have a "continuous surface connection" with navigable waters of the United States or relatively permanent tributaries to navigable waters. This report proposes preliminary conclusions regarding the jurisdictional status of non-wetland waters based on the *Sackett* decision.

On August 29, 2023, the USACE and the EPA issued a release noting that a revised definition of waters of the United States would be issued in conformance with *Sackett*. On September 8, 2023, the USACE and EPA issued the final rule updating the definition of waters of the United States in conformance with *Sackett* in the Federal Register. The final rule is not currently operative in certain states and for certain parties due to litigation. California is excluded from this litigation and is currently operating under the guidance issued in the Federal Register on September 8, 2023.

Per the guidance outlined above, only the reaches associated with Mariposa Creek and its underground culvert segment contain a continuous surface connection with a navigable water of the United States. Mariposa Creek is a perennial tributary to the Merced River, which flows into the San Joaquin River, which eventually empties into the San Francisco Bay, a traditionally navigable water. For these reasons, Segments 3-1, 3-2, 3-3, and 3-4 would likely be classified as waters of the United States under the jurisdiction of the USACE. Note that a final jurisdictional determination can only be made by the USACE following verification.

5.4.2 - Features Proposed to be Exempt from United States Army Corps of Engineers Jurisdiction

The remaining drainage and culvert segments (1-1, 2-1, 2-2, 2-3, 2-4, 2-5, and the culvert output) delineated within the Survey Area would likely be exempt from USACE jurisdiction. These drainages and culvert segments are ephemeral features that would not be subject to USACE jurisdiction due to

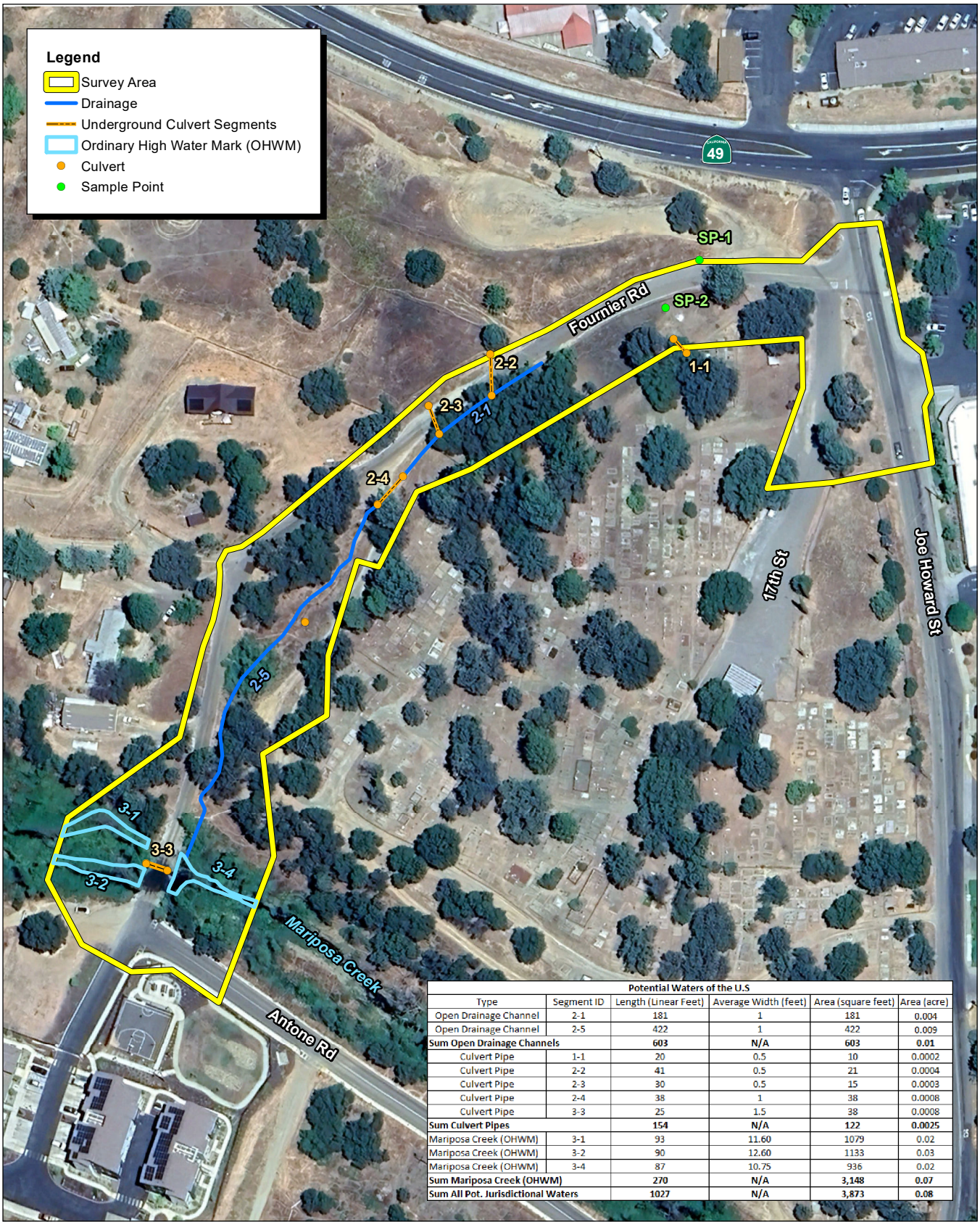
the lack of a continuous surface connection to a traditionally navigable water, pursuant to the *Sackett* decision levied by the U.S. Supreme Court. Note that a final jurisdictional determination can only be made by the USACE following verification.

5.4.3 - Proposed Regional Water Quality Control Board Jurisdiction

Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code § 13050(e)) and are under the jurisdiction of the RWQCB. Therefore, FCS proposes that all features within the Survey Area boundary, as shown on Exhibit 4, would fall under the jurisdiction of the RWQCB. This proposed jurisdictional determination is preliminary until confirmed by the RWQCB.

5.4.4 - California Department of Fish and Wildlife Streambed Alteration Program Considerations

Because of the presence of drainage beds and banks, it is expected that the CDFW will assert regulatory oversight over potential impacts on all drainage channels and associated vegetation pursuant to California Fish and Game Code Section 1602, *et seq*. (Streambed Alteration Program). It is expected that the CDFW will classify all vegetation in the drainages and trees with canopies overhanging the drainages as “riparian vegetation” and that the CDFW will require a Notification of Streambed Alteration and subsequent Streambed Alteration Agreement for any work that could adversely affect the drainages on-site and associated riparian vegetation.



Potential Waters of the U.S					
Type	Segment ID	Length (Linear Feet)	Average Width (feet)	Area (square feet)	Area (acre)
Open Drainage Channel	2-1	181	1	181	0.004
Open Drainage Channel	2-5	422	1	422	0.009
Sum Open Drainage Channels		**603**	**N/A**	**603**	**0.01**
Culvert Pipe	1-1	20	0.5	10	0.0002
Culvert Pipe	2-2	41	0.5	21	0.0004
Culvert Pipe	2-3	30	0.5	15	0.0003
Culvert Pipe	2-4	38	1	38	0.0008
Culvert Pipe	3-3	25	1.5	38	0.0008
Sum Culvert Pipes		**154**	**N/A**	**122**	**0.0025**
Mariposa Creek (OHWM)	3-1	93	11.60	1079	0.02
Mariposa Creek (OHWM)	3-2	90	12.60	1133	0.03
Mariposa Creek (OHWM)	3-4	87	10.75	936	0.02
Sum Mariposa Creek (OHWM)		**270**	**N/A**	**3,148**	**0.07**
Sum All Pot. Jurisdictional Waters		**1027**	**N/A**	**3,873**	**0.08**

Source: Google Earth Pro Aerial Imagery, 06/23/2024. Mark Thomas, 01/2025.

140 70 0 140
Feet

Exhibit 4
Aquatic Resources Jurisdictional Delineation Map

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6 - CONCLUSION

The Survey Area includes Mariposa Creek, two open and vegetated ephemeral channels, five underground culvert pipe segments, and a culvert output for a total length of 1,027 linear feet, covering an aggregate area of approximately 3,873 square feet (0.08 acre), as shown on Exhibit 4. No additional aquatic features, including wetlands, were observed within the Survey Area.

The Survey Area includes 295 linear feet, 3,186 square feet (0.07 acre), of potential waters of the United States; and 1,027 linear feet, 3,873 square feet (0.08 acre), of potential waters of the State.

Additionally, any impacts on drainage channels and associated riparian vegetation are expected to be regulated by the CDFW pursuant to the Streambed Alteration Program, California Fish and Game Code Section 1602, *et seq*.

The findings and conclusions presented in this report, including the location and extent of waters subject to regulatory jurisdiction, represent the professional opinion of FCS. These findings and conclusions should be considered preliminary until confirmed by the USACE, RWQCB, and CDFW.

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Appendix A:

Site Photographs

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Photograph 1: Northwest corner of project site facing west, showing Fournier Road and long-term staging area.



Photograph 2: Northwest corner of project site facing south, showing Joe Howard Street and Mariposa Cemetery access road.



Photograph 3: Northwest corner of project site facing southwest, showing Mariposa Cemetery.



Photograph 4: Center of project site facing south, showing drainage, Fournier Road along the right, unnamed access road, and edge of Mariposa Cemetery.



Photograph 5: Center of project site past junction of Fournier Road and unnamed access road facing southwest, showing drainage, unnamed access road, and Fournier Road on the right.



Photograph 6: Southwest section of project site facing southwest, showing drainage with red willow tree and Himalayan blackberry patch, unnamed access road above on the left, and Fournier Road on the right.



Photograph 7: Southwest end of project site facing south, showing Mariposa Creek flowing over Fournier Road, red willow riparian woodland, and Antone Road and residential development in the back.



Photograph 8: Southwest end of project site facing south, showing Mariposa Creek flowing over Fournier Road.



Photograph 9: Southwest end of project site facing west, showing upstream portion of Mariposa Creek.



Photograph 10: Southwest end of project site facing east, showing downstream portion of Mariposa Creek.



Photograph 11: South corner of project site facing north, showing Mariposa Creek and red willow riparian woodland.



Photograph 12: South corner of project site facing west, showing Antone Road and Mariposa Creek.



Photograph 13: South corner of project site facing south, showing Antone Road, residential development, and woodland in the distance.



Photograph 14: Southwest corner of project site facing north, showing Mariposa Creek, red willow riparian woodland, and Fournier Road.



Photograph 15: North section of project site facing west, showing Fournier Road and long-term staging area.



Photograph 16: Evidence of sheet flows from gravel parking area and long-term staging area.



Photograph 17: Sample Point #1. Soil pit.



Photograph 18: Sample Point #1. Soil strata.



Photograph 19: North section of project site facing southeast, showing Mariposa Cemetery, pathway, and ouflow culvert from pathway drainage.



Photograph 20: Mariposa Cemetery outflow culvert from pathway drainage.



Photograph 21: Sample Point #2. Soil pit.



Photograph 22: Sample Point #2. Soil strata.



Photograph 23: Center of project site facing south, showing inflow culvert and start of drainage across Fournier Road.



Photograph 24: South end of project site facing south, showing drainage emptying into Mariposa Creek.

Appendix B:

WETS Analysis

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WETS Analysis for Fournier Road Improvement Project JD, Mariposa County, CA based on 30-year averages of the Yosemite WETS Station

Month	30% Chance Precipitation is less or equal than (in)	Average	30% Chance Precipitation more than (in)	Observed rainfall (inch)	Condition (dry, wet, normal)	Condition Value*	Weighting Factor	Product of previous 2 columns
November	1.79	3.65	4.46	4.29	normal	2	3	6
December	2.82	6.09	7.24	3.56	normal	2	2	4
January	2.21	6.28	7.24	0.86	dry	1	1	1
							Sum=**	**11**

**If sum is:	
6-9	prior period has been drier than normal
10-14	prior period has been normal
15-18	prior period has been wetter than normal

*Condition Values:
Dry=l
Normal=2
Wet=3

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Appendix C:

Wetland Delineation Data Forms

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Fournier Road City/County: Mariposa / Mariposa Sampling Date: 2/3/2025

Applicant/Owner: City of Mariposa State: CA Sampling Point: 1

Investigator(s): Robert Carroll, Juliet Simpson Section, Township, Range: T5S R18E S14

Landform (hillslope, terrace, etc.): roadside Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C18-Sierra Nevada Foothills Lat: 37.492574 N Long: -119.975190 W Datum: _____

Soil Map Unit Name: Loafercreek-Bonanza complex NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

high precipitation and surface flows prior to survey - peak rainy season
roadside area just downhill from long-term staging area, rain flows from gravel parking area

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Festuca perennis	15	N	FAC
2. Avena sp. - not sativa	5	N	-
3. Bromus hordeaceus	15	N	FACU
4. Holocarpha heermannii	10	N	-
5. Grindelia camporum	2	N	FACW
6. Elymus caput-medusae	10	N	-
7. Erodium botrys	10	N	FACU
8. Vicia villosa	15	N	-
Total Cover:	82		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 18 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: - (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 2	x 2 =	4
FAC species 15	x 3 =	45
FACU species 25	x 4 =	100
UPL species	x 5 =	
Column Totals: 42 (A)		149 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	7.5YR 4/4	100					SL	
4-16	7.5YR 4/6	85	5YR 5/8	15	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

redox present but chroma values not meeting F3, F6, F7

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

drainage from gravel parking area on side of road

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Fournier Road City/County: Mariposa / Mariposa Sampling Date: 2/3/2025

Applicant/Owner: City of Mariposa State: CA Sampling Point: 2

Investigator(s): Robert Carroll, Juliet Simpson Section, Township, Range: T5S R18E S14

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C18-Sierra Nevada Foothills Lat: 37.492442 N Long: -199.975316 W Datum: _____

Soil Map Unit Name: Loafercreek-Bonanza complex NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:
high precipitation and surface flows prior to survey - peak rainy season
sample point within cemetary

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Claytonia parviflora	20	Y	FACU
2. Claytonia perfoliata	5	N	FAC
3. Nemophila heterophylla	20	Y	-
4. Erodium botrys	10	N	FACU
5. Vicia villosa	10	N	-
6. Daucus pusillus	3	N	-
7. Geranium molle	2	N	-
8. unknown grass	20	Y	FACU
Total Cover:	90		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 5	x 3 = 15
FACU species 50	x 4 = 200
UPL species _____	x 5 = _____
Column Totals: 55 (A)	215 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 2.5/1	100					CL	
1-16	4YR 4/3	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- X 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

dark layer is not thick enough for A1, A2, A3, A12, etc., soil chroma does not meet A5, A11, etc.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 14

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

below drainage culvert from cemetary path

Fournier Road Improvement Project



Biological Assessment

Mariposa County, California

Mariposa, California USGS 7.5-Minute Quadrangle

Township 5 South, Range 18 East

LTCAP-5940(155)

February 2026

The environmental review, consultation, and any other actions required by applicable federal environmental laws for this proposed project are being, or have been, carried out by the California Department of Transportation (Caltrans) pursuant to 23 United States Code 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans.

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Biological Assessment

Mariposa County, California

Mariposa, California USGS 7.5-Minute Quadrangle

Township 5 South, Range 18 East

LTCAP-5940(155)

February 2026

STATE OF CALIFORNIA
Department of Transportation
Enter local agency or agencies

Prepared By: _____ Date: February 13, 2026

Juliet Simpson, Biologist
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FirstCarbon Solutions

Recommended for
Approval By: _____ Date: _____

Enter reviewer's name and title
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Enter office name
Enter District/Region

Approved By: _____ Date: _____

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Enter phone number
Enter office name
Enter District/Region

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Acronym List

AMSL	above mean sea level
BA	Biological Assessment
BMP	Best Management Practice
CACO	California condor
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPS Inventory	CNPS Rare Plant Inventory
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CTS	California tiger salamander
CTC	California Transportation Commission
CWA	Clean Water Act
DPS	Distinct Population Segment
EFH	essential fish habitat
ESU	Evolutionarily Significant Unit
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Code
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FISH	fisher
FYLF	foothill yellow-legged frog
GPS	Global Positioning System
IPaC	Information for Planning and Consultation
JD	aquatic resource jurisdictional delineation

LTCAP	Local Transportation Climate Adaptation Program
MBTA	Migratory Bird Treaty Act
MOBU	monarch butterfly
NEPA	National Environmental Protection Act
NES	Natural Environment Study
NOAA Fisheries	National Marine Fisheries Service
NPPA	Native Plant Protection Act of 1977
NPT	northwestern pond turtle
OHWM	ordinary high water mark
RWQCB	Regional Water Quality Control Board
SNYLF	Sierra Nevada yellow-legged frog
SR	State Route
State Water Board	California State Water Resources Control Board
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
VELB	valley elderberry longhorn beetle
WESP	western spadefoot

Executive Summary

The purpose of this biological assessment (BA) is to provide technical information and to review the proposed action in sufficient detail to determine to what extent the proposed action potentially may affect federally threatened, endangered, or proposed species.

The purpose of the proposed Fournier Road Improvement Project is the widening and associated improvements on Fournier Road to provide a more resilient route for residents to reach California State Route (SR) 49 during climate events. The proposed improvements would address roadway overtopping during storm events and improve evacuation conditions for occupants of several nearby housing developments and the Hyatt Hotel, providing increased access to SR-49.

Eleven federally listed or proposed species were assessed for potential project effects. The proposed action would have no effect on nine of these species: California tiger salamander – central Distinct Population Segment (DPS) (CTS; *Ambystoma californiense;* pop. 1*),* California red-legged frog (CRLF; *Rana draytonii*), Sierra Nevada yellow-legged frog (SNYLF; *Rana sierrae*), western spadefoot (WESP; *Spea hammondii*), California condor (CACO; *Gymnogyps californianus*), monarch butterfly (MOBU; *Danaus plexippus plexippus*), valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*),fisher - southern Sierra Nevada Evolutionarily Significant Unit (ESU) (FISH; *Pekania pennanti;* pop. 2), and Mariposa pussypaws (*Calyptridium pulchellum)*. The proposed Action may affect, but is not likely to adversely affect, two species: foothill yellow-legged frog - south Sierra DPS (FYLF; *Rana boylii;* pop. 5) and northwestern pond turtle (NPT; *Actinemys marmorata*). There is no proposed or designated critical habitat located within the action area.

Chapter 1. Introduction

1.1. Purpose and Need of the Proposed Action

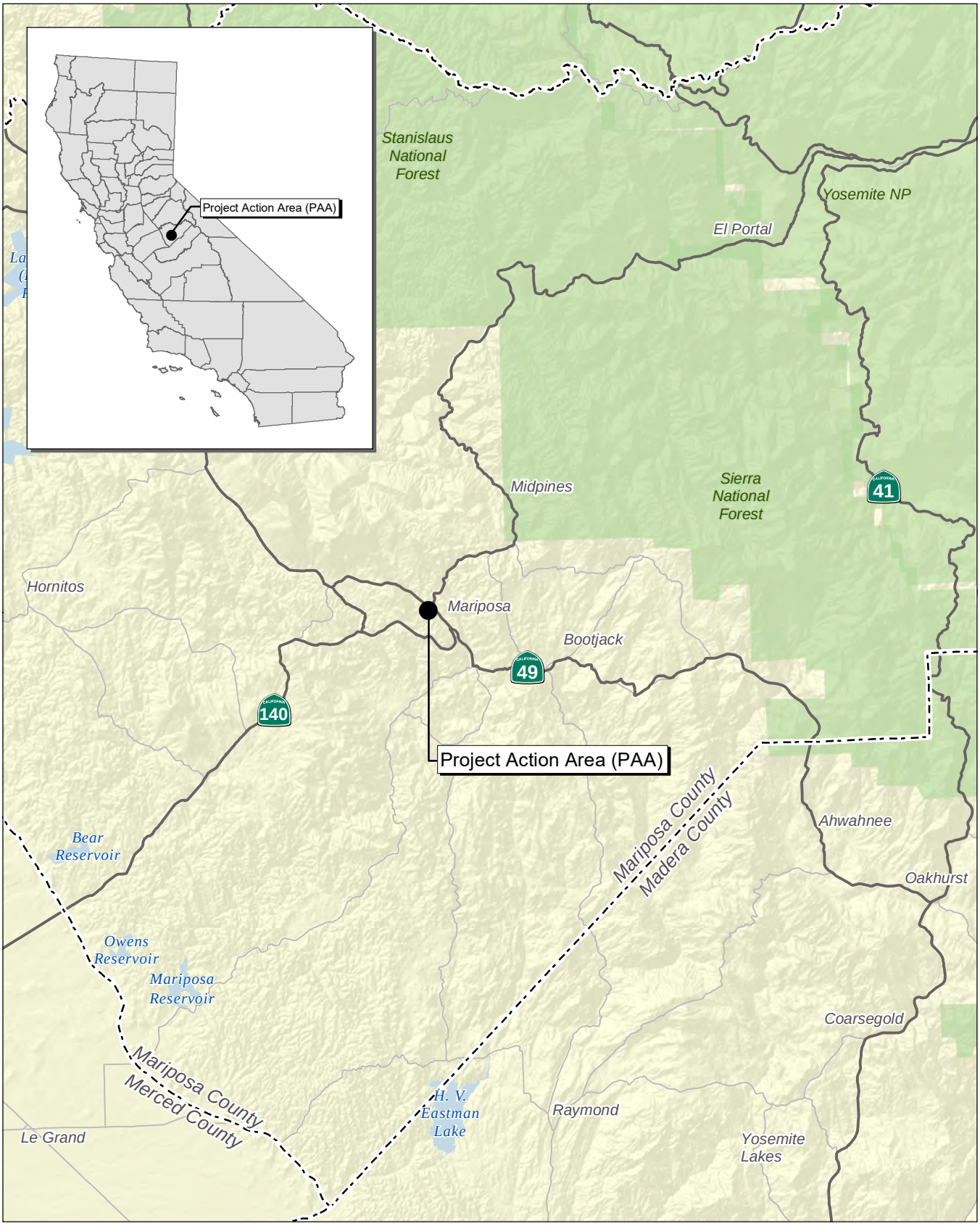
The proposed action is located in Mariposa County, within the Mariposa, California

United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Figure 1 and Figure 2). The proposed action is located within Township 5 South, Range 18 East. The coordinates for the approximate center point of the action area are 37.4920519, -119.9763237.

The purpose of the proposed widening and associated improvements on Fournier Road is to provide a more resilient route for residents to reach SR-49 during climate events. The proposed bridge would be designed so the water surface elevation upstream and downstream of the bridge would be equal to or lower than the water surface elevation shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The proposed improvements would address the roadway overtopping during storm events and improve evacuation conditions for occupants of several nearby housing developments and the Hyatt Hotel, providing increased access to SR-49. The proposed action is predominantly funded by the California Transportation Commission (CTC) for the Local Transportation Climate Adaptation Program (LTCAP). Caltrans is the Lead Agency.

Fournier Road currently has a low-water crossing over Mariposa Creek. The existing channel is not sloped properly, resulting in sediment getting trapped and restricting the flow, and the existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events. As a result, vegetation and sediment accumulation within the channel has significantly restricted flow capacity. This results in water overtopping the existing bridge. The proposed action would convert the low-water crossing into a bridge, which would prevent overtopping during storm events.

Additionally, there are several projects near Fournier Road that would benefit from road widening. The County recently built housing near the southern boundary of the action area and has additional plans for future low-income and mixed-income housing developments nearby. Additionally, a new hotel is being constructed north of Fournier Road and just east of the Joe Howard Street intersection with SR-49. These housing developments and the new hotel would utilize SR-49 during an evacuation event. Furthermore, Fournier Road is within the area of planned improvements for the Mariposa Creek Parkway, which includes 4 miles of trails.



Source: Census Data, The California Spatial Information Library (CaSIL).

5 2.5 0 5
Miles

Figure 1
Project Vicinity Map



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

1,000 500 0 1,000
Feet

Figure 2
Project Location Map

1.2. Species and Critical Habitats Assessed

FCS compiled the following list of federally threatened, endangered, and candidate species and habitats previously recorded within the action area and vicinity. This list was based upon the following literature searches: the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database (USFWS 2026); California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2026); and California Native Plant Society (CNPS) Rare Plant Inventory (CNPS Inventory) (CNPS 2026) (Appendix A). The action area is located outside of the NOAA's National Marine Fisheries Service (NOAA Fisheries); therefore, an NOAA Fisheries Species List is not included within this report. Table 1 below shows the list of species and their status, habitat requirements, and rationale for potential to occur on the action area.

Threatened and Endangered Species

- California tiger salamander (CTS)–central DPS (pop. 1) T
- Foothill yellow-legged frog (FYLF)–south Sierra DPS (pop. 5) E
- California red-legged frog (CRLF)–T
- Sierra Nevada yellow-legged frog (SNYLF)–E
- California condor (CACO)–E
- Valley elderberry longhorn beetle (VELB)–T
- Fisher (FISH)–southern Sierra Nevada Evolutionarily Significant Unit (ESU) (pop. 2) E
- Mariposa pussypaws–(*Calyptridium pulchellum*) T

Critical Habitat

No designated critical habitat occurs within the action area.

Proposed Species

The following federal proposed species may be affected by the proposed action:

- Western spadefoot (WESP)–PT
- Monarch butterfly (MOBU)–PT
- Northwestern pond turtle (NPT)–PT

Proposed Critical Habitat

No proposed critical habitat occurs within the action area.

Table 1. Threatened, endangered and proposed species and designated and proposed critical habitat and effect determinations.

Threatened, Endangered, Proposed Species, or Designated Critical Habitat	Scientific Name	Listing Status	Presence of Species in Action Area (Yes/No)	Presence of Critical Habitat in Action Area (Yes/No)	Effect Determination
California tiger salamander–central DPS	*Ambystoma californiense pop. 1*	Threatened	No	No	No effect
Foothill yellow-legged frog–south Sierra DPS	*Rana boylii pop. 5*	Endangered	No	No	May affect, (but not) likely to adversely affect
California red-legged frog	*Rana draytonii*	Threatened	No	No	No effect
Sierra Nevada yellow-legged frog	*Rana sierrae*	Endangered	No	No	No effect
Western spadefoot	*Spea hammondii*	Proposed Threatened	No	No	No effect
California condor	Gymnogyps californianus	Endangered	No	No	No effect
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	Threatened	No	No	No effect
Monarch butterfly	*Danaus plexippus plexippus*	Proposed Threatened	No	No	No effect
Fisher - southern Sierra Nevada ESU	*Pekania pennanti pop. 2*	Endangered	No	No	No effect
Northwestern pond turtle	*Actinemys marmorata*	Proposed Threatened	No	No	May affect, (but not) likely to adversely affect
Mariposa pussypaws	*Calyptridium pulchellum*	Threatened	No	No	No effect

1.3. Authorities and Discretion

1.3.1. Special-status Species Protections

1.3.1.1. Federal Endangered Species Act

The USFWS has jurisdiction over species listed as threatened or endangered under the federal Endangered Species Act of 1973. Section 9 of the Endangered Species Act protects listed species from “take,” which is broadly defined as actions taken to

“harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

1.3.1.2. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq.*).

1.3.1.3. Bald Eagle and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq.*) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

1.3.1.4. California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State-listed endangered and threatened species. CESA requires lead agencies to consult with CDFW when preparing California Environmental Quality Act (CEQA) documents to ensure that lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

1.3.1.5. California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California’s rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA. Fish and Game Code Section 2081 establishes an incidental take permit program for State-listed species. The CDFW maintains a list of “candidate

species" which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from take prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the project.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the CDFW CNDDB and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the CNPS List ranked 1 and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided

by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project Study Area and determine whether the project will have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water. CDFW jurisdiction typically extends to the edge or "drip line" of the riparian habitat or top of bank.

1.3.2. Wetlands and Waters of the United States and State

1.3.2.1. Clean Water Act

A draft rule regarding Section 404 was proposed on November 20, 2025, to revise the definition of "waters of the United States" to be consistent with the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency* (USACE and EPA 2025). In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in the Sackett case. In *Sackett*, the Supreme Court adopted the *Rapanos* plurality's test for adjacent wetlands: only those wetlands with a continuous surface connection to other regulated waters, such that the two are indistinguishable.

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The term "waters of the United States" is defined in USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. Waters which are:
    a. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    b. The territorial seas; or
    c. Interstate waters;

2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraphs (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
   a. Waters identified in paragraph (a)(1) of this section; or
   b. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

The following are not “waters of the United States”:

1. Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the United States Environmental Protection Agency (EPA);
3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;
5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

“Wetland” refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401 of the CWA states that “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

1.3.2.2. Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the State” (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code § 13050(e)). In 2019, the California State Water Resources Control Board (State Water Board) published the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) to guide wetland/waters of the State determinations and the permitting process (California State Water Resources Control Board 2020).

1.3.3. Invasive Species Regulations

1.3.3.1. Executive Order 13112–Invasive Species

On February 3, 1999, Executive Order 13112 was signed requiring federal agencies to combat the introduction or spread of invasive species. This Executive Order was then amended to Executive Order 13751 as of December 2016. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.”

Under the Executive Order, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

1.3.4. Local Plans, Policies, and Ordinances

1.3.4.1. Mariposa County General Plan

The Mariposa County General Plan contains several policies related to the protection of sensitive species and habitat that are applicable to the proposed action (Mariposa County 2025).

Goal 11-1 Conserve the natural and scenic resources, and open space lands to protect and enhance the County's quality of life and character ensuring a viable economy.

Policy 11-1a Conserve natural and scenic resources through County programs and development standards.

Implementation Measures

IM11-1a(1) The County shall establish guidelines to ensure development complementary to the scenic aspects of the County's rural character.

IM 11-1a(2) The County shall develop subdivision design standards for placement of structures on ridgelines and open hillsides.

IM 11-1a(3) Develop flexible site development and clustering to conserve designated scenic routes, views, and viewsheds.

IM 11-1a(4) The County shall develop guidelines for non-single family development within County highway corridors to preserve scenic resources. The guidelines will be developed into a scenic views plan for the preservation of visual quality along the County's highways. The plan will identify resources, views, and programs, while protecting the rights of property owners.

Policy 11-1b Collaborate with other public and private agencies for conservation management plans and programs.

Implementation Measures

IM 11-1b(1) The County should participate in conservation management planning with Federal and State and other public and private agencies.

Goal 11-2 Protect and manage the use of Mariposa County's limited water resources.

Policy 11-2a Conserve water to accommodate County growth and sustainable agriculture.

Implementation Measures

IM11-2a(1) Implement standards for water conservation that are consistent with State guidelines, including requirements for the installation and use of low-flow plumbing fixtures in all new construction, and for the use

of drip irrigation systems and drought-tolerant or low water using landscaping (including retention of existing native plant material) in all multi-family, commercial, resort, industrial and public developments.

IM11-2a(2) Cooperate with the Mariposa Public Utility District and other wastewater generators in implementing programs for reuse of treated wastewater.

IM 11-2a(3) Cooperate with the domestic water system operators and public water purveyors in implementing programs to eliminate water loss due to leakage in pipes, ditches or other conveyance facilities.

Policy 11-2b Preserve surface and sub-surface water quality.

Implementation Measures

IM11-2b(1) Review development designs to ensure compliance with Federal and State water quality regulations and to ensure that the project does not discharge contaminated water.

Policy 11-2c Preserve the existing or potential sources of a sustainable water supply.

Implementation Measures

IM 11-2c(1) Outside Town Planning Areas and Rural Centers, maintain low intensities of development in order to protect the capacity of watersheds.

IM 11-2c(2) Designate watershed areas of surface water systems where such systems and their proposed watershed areas serve or are capable of serving as a potable water source.

Policy 11-2d Conserve water sources for water-dependent species and the continuity of riparian communities.

Implementation Measures

IM 11-2d(1) Implement requirements for minimum building and grading setback lines from waters of the State (i.e., perennial streams and environmentally significant wetlands), that are adequate to protect stream, riparian, and wetland resource values.

IM 11-2d(2) Provide for clustering of development that protects and avoids impacts to significant water resources.

Goal 11-4 Conserve and enhance the ecosystems, plant communities, wildlife habitats, and the inherent diversity of both plant and animal species for the recreational, commercial, aesthetic, and basic ecosystems needs.

Policy 11-4a Conserve the diversity of native ecosystems, plant communities, wildlife habitat, and plant and animal species in the County.

IM 11-4a(1) The County will implement a Mariposa County Environmental Conservation Program. The Program shall include development standards and programs conserving, protecting, and mitigating the impacts on:

- significant and sensitive habitat including wildlife migration corridors,
- breeding and nesting areas (as seasonally appropriate);
- known occurrences of special status animal species;
- riparian habitat around bodies of water and along watercourses and seasonal drainages;
- known occurrences of special status plant species, and
- significant and sensitive plant communities

IM 11-4a(2) Site development and grading review should minimize the removal of native trees and groves of trees.

IM 11-4a(3) The County shall develop and enforce standards that reduce or eradicate invasive species affecting the agricultural and natural ecosystems.

IM 11-4a(4) The County shall publish landscaping guidelines for the use of site-appropriate native plant species.

IM 11-4a(5) The County shall utilize collaborative planning efforts to coordinate local efforts to eradicate invasive plant species.

IM 11-4a(6) The County shall require site surveys in compliance with Federal and State regulations as part of environmental review to determine:

- The presence or absence of endangered species and their habitat;
- The presence or absence of threatened or rare wildlife and plant species and their habitat;
- The presence or absence of breeding raptors and migratory birds;
- The presence or absence of sensitive native plant communities;
- The presence or absence of native wildlife migration or travel corridors; and
- The presence or absence of jurisdictional wetland or other waters of the U.S.

IM 11-4a(7) The County shall record the data collected from the required site surveys to create a comprehensive map of environmental resources in Mariposa County. The map shall include but not be limited to

vegetation communities with associated habitats for sensitive wildlife species.

IM 11-4a(8) During project review and environmental analysis, the County shall comply with Federal and State regulations to require measures that:

- Protect endangered species and their habitat;
- Protect threatened or rare wildlife and plant species and their habitats;
- Protect breeding raptors and migratory birds;
- Protect and avoid, to the extent feasible, sensitive native plant communities;
- Protect and avoid, to the extent feasible, native wildlife migration or travel corridors; and
- Protect and avoid, to the extent feasible, jurisdictional wetland or other waters of the U.S.

1.3.4.2. Mariposa County Voluntary Oak Woodland Management Plan and Landowner Guidelines Resolution

The Mariposa County Voluntary Oak Woodland Management Plan and Landowner Guidelines Resolution was passed in Mariposa County in 1995 (Mariposa County 1995). Though not legally enforceable, the plan specifies that an effort will be made to retain oak woodlands of Mariposa County (Mariposa County 2003). Oaks of all sizes and species are recommended to be protected except in the case where there is a fire or safety hazard.

1.4. Consultation History

FCS conducted the following database queries for the proposed action:

- An official list of federally listed and candidate species that may occur within the action area vicinity and/or may be affected by the proposed action from the USFWS Environmental Conservation Online System: Information for Planning and Conservation (IPaC), which was generated for the project on January 10, 2025 and updated on January 26, 2026 (Appendix A, IPaC Database Query; USFWS 2026)
- A records search of the CDFW CNDDB for species that have previously recoded occurrences within the Mariposa, California USGS 7.5-minute Quadrangle Map and the surrounding eight quadrangles, which was generated for the project on January 10, 2025 and updated on January 26, 2026 (Appendix A, CNDDB Database Query; CDFW 2026)
- A records search of the CNPS Rare Plant Inventory (CNPS Inventory) for species that may occur within the *Mariposa, California* USGS 7.5-minute Quadrangle Map and the surrounding eight quadrangles, which was generated for the project on January 10, 2025 and updated on January 26, 2026 (Appendix A, CNPS Database Query; CNPS 2026).

The action area is located outside of the NOAA Fisheries; therefore, an NOAA Fisheries Species List is not included within this report.

1.5. Resource Agency Coordination and Professional Contacts

Mariposa Creek, a perennial creek, and an ephemeral tributary are located within the action area. These features would likely qualify as waters of the United States and State regulated under the CWA, the Porter-Cologne Water Quality Act, and California Fish and Game Code Section 1600. An aquatic resource jurisdictional delineation (JD) has been prepared for submittal the USACE with a request for a preliminary jurisdiction determination. The proposed action will likely require a CWA Section 404 permit, a CWA Section 401 permit, and a Fish and Game Code Section 1600 permit.

To date, there has been no communication with USACE, RWQCB, CDFW, or USFWS regarding this project.

1.6. Study Methods

1.6.1. Desktop Review

FCS compiled a list of threatened, endangered, and candidate species and habitats previously recorded within the action area and vicinity. This list was based upon the following literature searches: USFWS IPaC database (USFWS 2026); CDFW CNDDB (CDFW 2026); and CNPS Inventory (CNPS 2026) (Appendix A). The action area is located outside of the NOAA Fisheries; therefore, an NOAA Fisheries Species List is not included within this report. The nearby occurrences of special-status species and sensitive natural communities were recorded based upon the CDFW CNDDB Biogeographic Information and Observation System (BIOS 6) results (CDFW 2025a), The Calflora Database (Calflora) records search results (The Calflora Database 2025), and iNaturalist records search results (iNaturalist Community 2025).

1.6.2. Survey Methods

FCS Biologists conducted a reconnaissance-level field survey and a JD of the action area on February 3, 2025, to map and classify the vegetation communities and land cover types present on the action area and to determine the potential of the action area to support special-status species.

1.6.2.1. General Biological Survey

FCS walked the action area and noted the Global Positioning System (GPS) locations of potential biological resources using the ArcGIS Field Maps mobile application. The objective of the survey was not to extensively search for every species occurring within the action area but to ascertain general site conditions and identify whether existing vegetation communities provide suitable habitat for special-status plant or wildlife species. Special-status and other biological resources identified during the literature review were ground-truthed during the field survey for mapping accuracy. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species.

1.6.2.2. Aquatic Resources Jurisdictional Delineation

FCS conducted a JD to determine the location of any existing aquatic features and limits of project-related grading activities to aid in recommending the limits of jurisdiction of waters of the State, waters of the Unites States, and CDFW riparian habitat. A perennial creek and an ephemeral drainage connected via underground culvert segments were mapped on-site; however, wetland sample points taken on-site did not find evidence wetlands present on-site.

1.6.3. Personnel and Survey Dates

FCS Senior Biologist Robert Carroll and FCS Biologist Juliet Simpson conducted a reconnaissance-level field survey and JD of the action area on February 3, 2025. Resumes for Mr. Carroll and Ms. Simpson are included in Appendix B.

1.6.4. Limitations and Assumptions That May Influence Results

Mariposa Creek was flowing at high volume at the time of the survey, flooding over Fournier Road and preventing views of the existing culvert. Culvert locations were provided by the client in lieu of being recorded in the field by FCS Biologists. No additional limitations existed that influenced survey results and the methodology outlined in Section 2 is consistent with the standards for the preparation of an Natural Environment Study (NES).

Chapter 2. Proposed Agency Action

2.1. Proposed Action Location

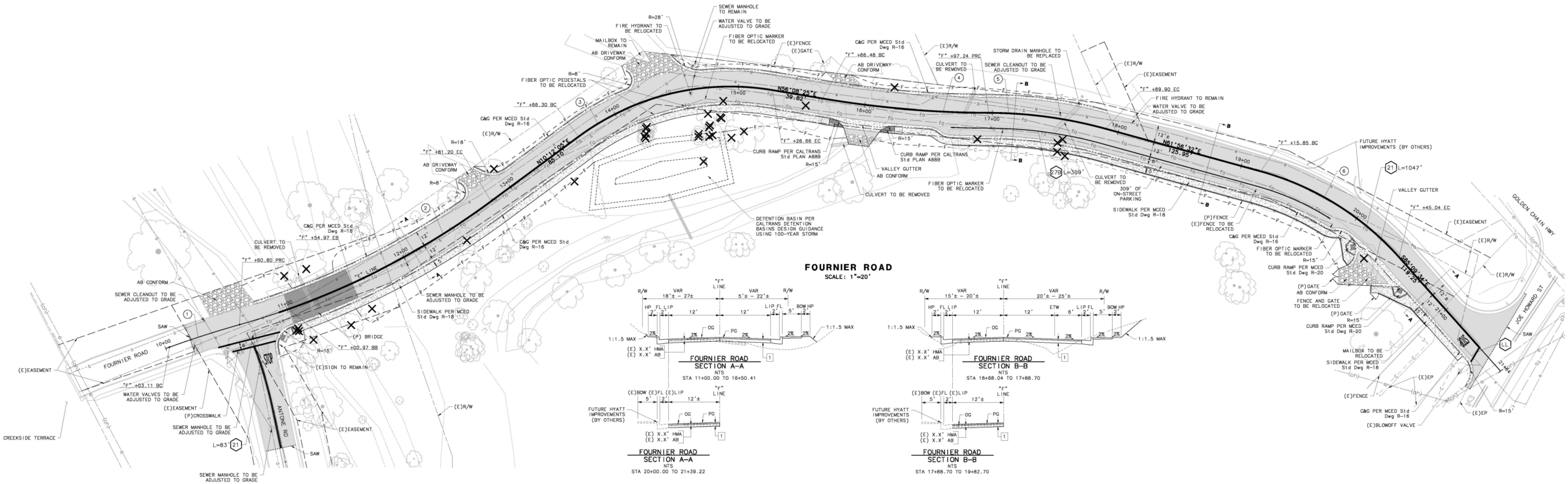
The proposed action is located in Mariposa County, within the *Mariposa, California* U.S. Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Figure 1 and Figure 2). The proposed action is located within Township 5 South, Range 18 East. The coordinates for the approximate center point of the action area are 37.4920519, -119.9763237.

The proposed action is located along Fournier Road, beginning approximately 200 feet south of Antone Road and extending northeast to Joe Howard Street. Fournier Road is a two-way, 15-foot-wide roadway located in the southwest portion of the unincorporated community of Mariposa. Fournier Road consists of two lanes and is mostly unstriped except for a 100-foot section of striping near its intersection with Joe Howard Street. Fournier Road intersects Joe Howard Street approximately 75 feet south of SR-49. Fournier Road crosses over Mariposa Creek at a low water crossing near the southern portion of the action area. The existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events.

2.2. Description of Proposed Action

The County of Mariposa is proposing road widening and associated improvements along the 0.23-mile length of Fournier Road. The action area is 1.93 acres, including 0.47 acre of ground disturbance and 1.01 acres of street improvements (Figure 3). Proposed improvements along Fournier Road would span the entire length of the roadway and would include widening the roadway to two 12-foot travel lanes; installation of new pavements and striping; construction of a sidewalk, curb and gutter, detention basin, and a bridge; and addition of on-street parking adjacent to the cemetery. The proposed action would also include grading, right-of-way dedication, and relocation of utilities. Other improvements would include new pavement and striping at the intersection with Antone Road and realignment of the cemetery driveway. A total of 36 trees would be removed.

To accommodate roadway widening and the construction of a sidewalk along the southeast side of Fournier Road, fill-slope conform grading would be required throughout most of the project length. The roadway widening would require additional right-of-way dedication from the cemetery. The proposed detention basin would accommodate increased runoff from new impervious surfaces created by the roadway widening. Additionally, the proposed action would add new on-street parking adjacent to the cemetery.



LEGEND

- CUT
- FILL
- CURB & GUTTER
- R/W
- EASEMENT
- SAWCUT
- MPUD WATER LINE
- MPUD SEWER LINE
- SIERRA TELEPHONE FIBER OPTIC LINE
- PGE OVERHEAD ELEC LINE
- BC/EC/PCC/PRC
- REMOVE TREE/LANDSCAPING
- PROPOSED PAVEMENT
- PROPOSED AGGREGATE BASE
- PROPOSED BRIDGE DECK
- PROPOSED CONCRETE
- INSTALL "STOP" LETTERS
- DENOTES PROPOSED DETAIL NUMBER PER CALTRANS Std PLANS
- CHANGE IN TRAFFIC STRIPE

DESIGN CHART

DESIGN ELEMENT	DESIGN VALUE HELD	MEETS AASHTO	MEETS HDM
LANE TAPERS	25 MPH	X	X
VERTICAL PROFILE	25 MPH	X	X
STOPPING SIGHT DISTANCE	25 MPH, 150 FT	X	X

ALIGNMENT CURVE TABLE

CURVE	RADIUS	DELTA	TANGENT	LENGTH
1	800.00'	4°07'54"	28.86'	57.69'
2	610.00'	20°42'06"	111.42'	220.40'
3	200.00'	45°56'20"	84.77'	160.36'
4	800.00'	9°21'56"	65.53'	130.77'
5	350.00'	15°10'03"	46.60'	92.65'
6	225.00'	32°53'54"	66.43'	129.19'
7	35.00'	64°29'47"	22.08'	39.40'

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AP	ANGLE POINT
BB	BEGIN BRIDGE
BC	BEGIN CURVE
BOW	BACK OF WALK
C&G	CURB AND GUTTER
COMM	COMMUNICATION
Dwg	DRAWING
EASE	EASEMENT
EB	END BRIDGE
EC	END CURVE
ELEC	ELECTRICAL
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVEL WAY
(E)	EXISTING
HP	HINGE POINT
MCED	MARIPOSA COUNTY ENGINEERING DEPARTMENT
MPUD	MARIPOSA PUBLIC UTILITY DISTRICT
NTS	NOT TO SCALE
OH	OVERHEAD
(P)	PROPOSED
PCC	POINT OF COMPOUND CURVE
PGE	PACIFIC GAS & ELECTRIC
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
R/W	RIGHT OF WAY
SAW	SAWCUT
SHLD	SHOULDER
ST	STREET
Std	STANDARD
TBD	TO BE DETERMINED
Trans	TRANSITION
VAR	VARIES

CONSTRUCTION NOTES

1. PROPOSED PAVEMENT SECTION 0.2' HMA/0.5' AB

Source: Mark Thomas, 04/30/2025.

Figure 3
Project Site Plan

2.3. Deconstruct the Proposed Action

2.3.1 Cemetery Driveway

The cemetery driveway would be realigned to address safety concerns near its intersection with Fournier Road. The driveway would be widened to accommodate two 15-foot travel lanes and would be realigned to intersect Joe Howard Street south of Fournier Road.

2.3.2 Bridge and Channel Design

The proposed bridge would be a single span cast-in-place prestressed voided slab supported on spread footing foundation. A preliminary bridge layout was developed based on the initial roadway geometrics and a required clear span of 50 feet, resulting in a proposed bridge length of approximately 58 feet.

The abutments are located near the top of the channel banks to minimize impacts to the waterway. The proposed bridge would be designed so the water surface elevation upstream and downstream of the bridge would be equal to or lower than the water surface elevation shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM). The bridge would have an overall width of approximately 37 feet 8 inches, designed to accommodate two 12-foot travel lanes, two 2-foot shoulders, and a 5-foot 8-inch sidewalk along the east side and barriers.

The proposed action would regrade the channel to a 1 percent slope, extending 60 feet upstream and 40 feet downstream of the bridge, which will increase the flow capacity. The maximum depth of grading would be approximately 8 feet on the upstream side and 4 feet on the downstream side. The width of the channel would remain approximately 80 feet wide. The proposed action would be required to submit a preliminary grading plan indicating the location, height, and grade of all cut and fill banks necessary for the proposed action, consistent with Mariposa County Code Section 17.66.

2.3.3 Construction and Utilities

During construction, Fournier Road would be closed to through traffic. A detour route would be provided, directing vehicles to use Antone Road and Joe Howard Street. The proposed action would require the relocation of public utilities including water, sewer, storm drain, fiber optic, and electrical facilities.

2.4 Conservation Measures

The proposed action was designed to avoid effects to existing biological resources to the extent feasible. The proposed action schedule is seasonally timed to avoid high flow seasons for Mariposa Creek and dispersal periods for FYLF and NPT. The proposed action will include project design modifications and avoidance and minimization measures for CRLF and NPT.

2.4.1 Project Design Modifications for Avoidance and Minimization

Avoidance and Minimization Measure 1: Implement Water Quality Best Management Practices

- Before any ground-disturbing activities, the County shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) (as required under the State Water Resource Control Board's [State Water Board's] General Construction Permit Order 2009-0009-DWQ [and as amended by most current order(s)]) that includes erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after project construction. The SWPPP shall include site design to minimize off-site storm water runoff that might otherwise affect adjacent stream habitat.
- The SWPPP shall be prepared with the following objectives:
  (a) to identify pollutant sources, including sources of sediment, that may affect the quality of storm water discharges from the construction of the proposed Project;
  (b) to identify Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the Project during construction; construction;
  (c) to outline and provide guidance for BMP monitoring;
  (d) to identify proposed Project discharge points and receiving waters;
  (e) to address post-construction BMP implementation and monitoring; and
  (f) to address sedimentation, siltation, and turbidity.
- The SWPPP will require BMPs including, but not limited to:
  - Conduct ground-disturbing activities adjacent to and within Mariposa Creek and the ephemeral drainage during the low-flow period (generally between April 15 and October 15).
  - Install sediment fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and Mariposa Creek and the ephemeral drainage, as necessary, to ensure that construction debris and sediment does not inadvertently enter the drainage. The County will also cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch.
  - No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic habitat.
  - All machinery used during construction of the project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.

- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, State, and/or federal regulations.

Avoidance and Minimization Measure 2: Seasonal Work Restriction

- Project activities shall be restricted to the dry season (e.g., generally between April 15 and October 15) unless the creek is dry or as otherwise specified by the appropriate agencies during the regulatory permitting process. This window can be extended based on stream conditions if approved in writing by regulatory agencies with jurisdiction.

Avoidance and Minimization Measure 3: Exclusion Fencing

- Barrier fencing shall be installed around the worksite to prevent special-status species including foothill yellow-legged frog (FYLF) and northwestern pond turtle (NPT) from entering the work area. A qualified Biologist shall be present during the installation of exclusion fencing. Barrier fencing shall be removed within 72 hours of completion of work.

Avoidance and Minimization Measure 4: Minimize Vegetation Removal

- The disturbance or removal of vegetation, especially riparian vegetation, and native tree species would not exceed the minimum necessary to complete the project and would only occur within the defined work area. Precautions would be taken to avoid other damage to vegetation by people or equipment. Areas where avoidance of impacts to riparian areas and native tree species is determined to be feasible will be protected during project activities. These areas would be considered environmentally sensitive areas and exclusion fencing would be installed to ensure avoidance. No trees or riparian vegetation outside of the project footprint would be removed.

Avoidance and Minimization Measure 5: Provide Escape Ramps or Cover Open Trenches

- To avoid entrapment of wildlife, all excavated steep-walled holes, or trenches more than 1 foot deep will be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or similar materials. Providing escape ramps or covering open trenches will prevent injury or mortality of wildlife resulting from falling into trenches and becoming trapped. The trenches will be thoroughly inspected for the presence of federally listed species at the beginning of each workday. Any species observed shall be allowed to voluntarily move outside of the work area on its own. If at any time a trapped listed animal is discovered, the approved Biologist, or an on-site designee identified by the approved Biologist, will immediately place escape ramps or other appropriate structures to allow the animal to escape.

Avoidance and Minimization Measure 6: Revegetation

- Areas scheduled for grading and/or vegetation shall be revegetated utilizing an assemblage of native upland vegetation suitable for the area. Invasive, exotic plants shall be controlled to the maximum extent practicable during construction. This measure shall be implemented in all areas disturbed by activities associated with the project unless the applicable regulatory agencies determine that it is not feasible or practical.

2.4.2 Species Specific Conservation Measures–Foothill Yellow-legged Frog

Avoidance and Minimization Measure 7: Worker Environmental Awareness Program

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training shall include a description of the foothill yellow-legged frog (FYLF) and its habitat, the specific measures being implemented to conserve the FYLF for the current project, and the boundaries within which the project may be accomplished.

Avoidance and Minimization Measure 8: Pre-Construction Survey

- A qualified Biologist shall survey the action area no more than 5 days before the onset of work activities. If any life stage of the foothill yellow-legged frog (FYLF) is detected, construction activities shall not be allowed to commence until consultation with the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) has occurred.

Avoidance and Minimization Measure 9: Monitor during Dewatering Activities

- Appropriate temporary cofferdams shall be used to dewater the construction site and divert water through the action area during the construction period to prevent impeding water flow through the work area. When dewatering is required, a qualified Biologist shall be present during the dewatering period to inspect and ensure that sensitive aquatic species will not be trapped within the temporary cofferdams and to monitor the construction site during aquatic species relocation and dewatering activities. If special-status aquatic species are found within the cofferdams, then all work shall stop, and the appropriate agencies shall be notified. Any species observed shall be allowed to voluntarily move outside of the work area on its own. All cofferdams shall be inspected and maintained on a daily basis to ensure its integrity for the duration of the work below the ordinary high water mark (OHWM) of the creek. Pumps used for dewatering shall have fish screens, as identified in project permits, installed to minimize intake of fish and other aquatic species into pumps. Diversion structures shall be left in place until all in-stream work is completed.

2.4.3 Species Specific Conservation Measures – Northwestern Pond Turtle

Avoidance and Minimization Measure 10: Worker Environmental Awareness Program

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training will include a description of the northwestern pond turtle (NPT) and its habitat, the specific measures that are being implemented to conserve the NPT for the current project, and the boundaries within which the project may be accomplished.

Avoidance and Minimization Measure 11: Pre-construction Survey

- A qualified Biologist shall survey the action area no more than 5 days before the onset of work activities. If any life stage of the northwestern pond turtle (NPT) is detected, construction activities shall not be allowed to commence until consultation with the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) has occurred.

2.5 Compensation

Implementation of avoidance and minimization efforts described above would ensure no take of FYLF or NPT. Therefore, no compensatory mitigation is required.

Chapter 3. Environmental Baseline

Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR § 402.02).

3.1 Summary of Environmental Baseline

The action area is 1.93 acres located in census-designated Mariposa in Mariposa County, California. The action area is focused on Fournier Road from Antone Road to Joe Howard Street and includes a section of Mariposa Creek and ephemeral drainages. Vegetation communities and land cover types identified within the action area included developed, dirt access road, interior live oak-gray pine woodland, red willow riparian woodland, wild oat-annual brome grassland, Mariposa Creek, ephemeral drainages, and underground culvert segments. There are no federally listed or candidate species or critical habitats located on the action area.

The following section provides a more detailed description of the action area.

3.2 Description of the Action Area

The descriptions of environmental baseline conditions within the action area in the following sections were developed based on results from the database queries described in Section 1.4, background information related to land use, hydrology, and biological resources, and the reconnaissance-level field survey. Photographs taken during the reconnaissance-level field survey are included in Appendix C.

3.2.1 Land Use

The project action area is Fournier Road and the adjacent right-of-way. The surrounding land use includes a cemetery, which is property of Mariposa County, and private residential lands.

3.2.2 Topography

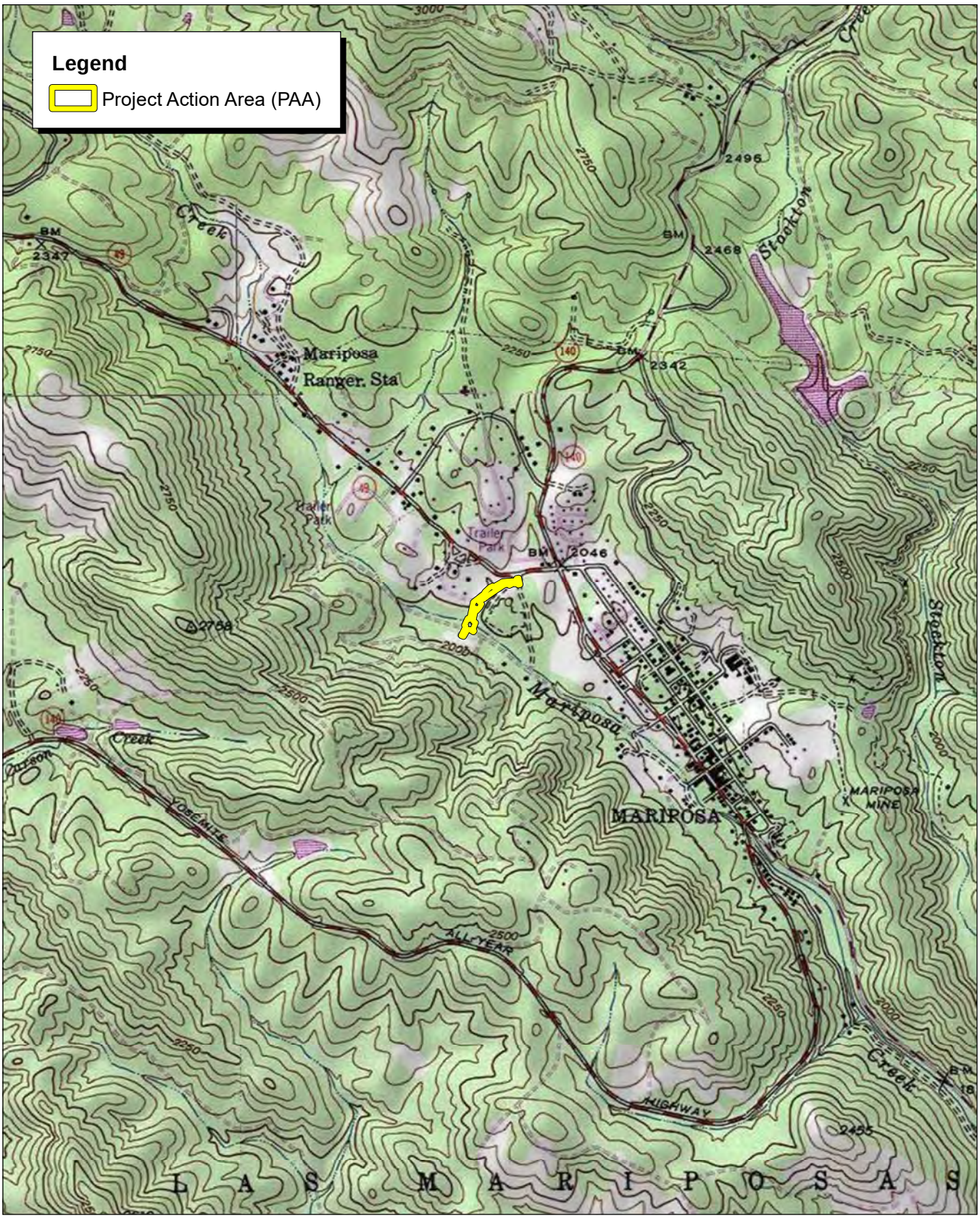
The action area is located on western slope of the Sierra Nevada Mountains, east of the Great Valley and Sierra Nevada Foothills. The elevation within the action area ranges from approximately 1,995 feet above mean sea level (AMSL) on the west end of the action area to 2,045 feet AMSL on the east end of the action area (Figure 4; Google Inc. 2025).

3.2.3 Soils

Soils within the action area are composed mostly of Loafercreek-Bonanza complex with riverwash and tailings complex surrounding Mariposa Creek. The Loafercreek-Bonanza complex is a well-drained soil with a restrictive paralithic bedrock layer 20-39 inches deep and a restrictive lithic bedrock layer 20-49 inches deep. The parent material for this soil is colluvium over residuum derived from metavolcanics. The Loafercreek-Bonanza complex is not classified as a hydric soil. The riverwash and tailings complex is a well-drained soil without a restrictive layer that is approximately 0-24 inches above the water table. The parent material for this soil is mixed alluvium. The riverwash and tailings complex mapped is classified as a hydric soil (Figure 5; United States Department of Agriculture 2025).

3.2.4 Hydrology

The action area contain Mariposa Creek, a perennial creek that is part of the Lower Mariposa drainage basin and the greater San Joaquin River Watershed. The action area is located approximately 17 miles north of H.V. Eastman Lake and approximately 17 miles southeast of Lake McClure.



Source: USGS Mariposa 7.5' Quadrangle / T05S R18E Sec 14, 15, 22, 23.

2,000 1,000 0 2,000
Feet

Figure 4
Topography Map



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

100 50 0 100
Feet

Figure 5
Soils Map

3.3 Habitat Conditions in the Action Area

Figure 6 shows all vegetation communities and land cover types identified within the action area. Vegetation communities and land cover types identified within the 1.93-acre action area included developed, dirt access road, interior live oak-gray pine woodland, red willow riparian woodland, wild oat-annual brome grassland, Mariposa Creek, ephemeral drainages, and underground culvert segments. Table 1, below, provides the approximate acreage of each land cover type within the action area. Photos of the action area are included in Appendix C. For a comprehensive list of wildlife and plant species observed, see Appendix D, Species Compendium.

Table 2. Vegetation Communities and Land Cover Types Present within the Action Area.

Vegetation Community / Land Cover Type	Action Area (acre)
Developed	0.78
Dirt access road	0.01
Interior live oak-gray pine woodland	0.42
Red willow riparian woodland	0.26
Wild oat-annual brome grassland	0.41
Mariposa Creek	0.04
Ephemeral drainage	0.01
Underground culvert segment	0.0023
Total Area[1]	1.93
[1] Sections where drainages occur underneath woodlands account for minor differences between the total area of action area and summarized acreage of the vegetation communities and land cover types.	



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

150 75 0 150
Feet

Figure 6
Biological Study Area

3.3.1 Developed

Much of the action area consists of the developed Fournier Road as well as portions of Joe Howard Street and Antone Road. Developed land is land that has been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Vegetation observed within this area was limited to roadside weeds emerging out of cracks in the ground, including wild oat (*Avena* sp.). Wild oat is listed as Invasive: Moderate by the California Invasive Plant Council (Cal-IPC).

Developed areas within the action area provide little to no habitat value for most wildlife species as this area is composed entirely of paved roadway.

3.3.2 Dirt Access Road

There is a dirt access road near the center of the action area that extends south from Fournier Road off-site toward the cemetery. This area is subject to semi-regular disturbance from vehicles and has low to moderate cover of non-native and invasive species present in the wild oat-annual brome disturbed grassland described below, including wild oat, short podded mustard (*Hirschfeldia incana*), white horehound (*Marrubium vulgare*), and English plantain (*Plantago lanceolata*). Wild oat and short podded mustard are both listed as Invasive: Moderate by the Cal-IPC. White horehound and English plantain are listed as Invasive: Limited by the Cal-IPC.

Dirt access roads provide little habitat value for most wildlife species. No wildlife species observed in this area during the surveys.

3.3.3 Interior Live Oak-Gray Pine Woodland

Interior live oak-gray pine woodland is present in small patches in upland portions of the action area. This community corresponds to the 71.080.42 *Quercus wislizeni–Pinus sabiniana*/annual grass–herb Association that is not listed as sensitive on the CDFW California Natural Communities List (CDFW 2025b). Interior live oak (*Quercus wislizeni*) and gray pine (*Pinus sabiniana*) are the dominant trees in this woodland, with other native species including blue oak (*Quercus douglasii*) and incense cedar (*Calocedrus decurrens*) also present. There were a few scattered toyon (*Heteromeles arbutifolia*) shrubs present within this community. Herbaceous cover in this community was also sparse and mainly composed of native disturbance tolerant species, including Pacific sanicle (*Sanicula crassicaulis*), miner's lettuce (*Claytonia perfoliata*), and bedstraw (*Galium* sp.). There was some wild oat growing in this community, which is listed as Invasive: Moderate by the Cal-IPC. This community surrounds Fournier Road and is subject to regular levels of disturbance; therefore, it is not likely to provide habitat for any listed or candidate plant species.

The interior live oak-gray pine woodland habitat within the action area provides minimal habitat for songbird species due to the small, isolated nature of the patches of trees and proximity to developed roads and residential developments, while the lack of adjacent foraging habitat limits the potential for nesting raptors. No active nests or avian species were observed in the small woodland patches during the field survey. Common residential mammals, such as raccoons (*Procyon lotor*) or squirrels (*Sciurus* spp.), are likely to utilize the interior live oak-gray pine woodland. This community

surrounds Fournier Road and is subject to regular levels of disturbance; therefore, it is not likely to provide habitat for any listed or candidate wildlife species.

3.3.4 Red Willow Riparian Woodland

There is red willow riparian woodland present in the portion of the action area surrounding Mariposa Creek and the adjacent portions of the tributary drainage. This community corresponds to the 61.205.01 *Salix laevigata* Association that is listed as Sensitive on the CDFW California Natural Communities List (CDFW 2025b). Red willow (*Salix laevigata*) is the dominant tree in this riparian woodland. Himalayan blackberry (*Rubus armeniacus*) is the only shrub present in this community and ranges between moderate and extreme density. Herbaceous plants present in this community include a variety of native and non-native species, including rough cocklebur (*Xanthium strumarium*), Great Valley gumweed (*Grindelia camporum*), tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), common St. John's wort (*Hypericum perforatum*), smilo grass (*Stipa miliacea*), white sweetclover (*Melilotus albus*), and field hedge parsley (*Torilis arvensis*). Himalayan blackberry is listed as Invasive: High by the Cal-IPC. Field hedge parsley is listed as Invasive: Moderate by the Cal-IPC. This community on the action area is surrounding Fournier Road and was subject to previous disturbance from the original installation of the Fournier Road Culvert. Therefore, this community has a low potential to provide habitat for any listed or candidate plant species.

The red willow riparian woodland habitat within the action area provides habitat for a variety songbird species, while the lack of adjacent foraging habitat limits the potential for nesting raptors. No active nests were observed during the field survey; however, some bird species were observed within this area of the action area, including oak titmouse, acorn woodpecker, and spotted towhee. This riparian woodland also has the potential to support semi-aquatic wildlife species that may be associated with Mariposa Creek, including FYLF and NPT.

3.3.5 Wild Oat-Annual Brome Grassland

Wild oat-annual brome grassland is present surrounding the roadways and woodland patches in the upland portions of the action area. This community corresponds to the 42.027.00 *Avena* spp.-*Bromus* spp. Alliance that is not listed as sensitive on the CDFW California Natural Communities List (CDFW 2025b). This community is dominated by non-native annual grasses, including wild oat, soft brome (*Bromus hordeaceus*), and Italian rye grass (*Festuca perennis*), with scattered non-native and native disturbance tolerant species including common St. John's wort, turkey-mullein (*Croton setiger*), English plantain, and Great Valley gumweed, Heermann's tarweed (*Holocarpha heermannii*), and field hedge parsley. Wild oat, Italian rye grass, and field hedge parsley are listed as Invasive: Moderate by the Cal-IPC. Soft brome, St. John's wort, and English plantain are listed as Invasive: Limited by the Cal-IPC. This community surrounds Fournier Road and is subject to regular levels of disturbance, which has likely contributed to the high levels of invasive species. Therefore, it is not likely to provide habitat for any listed or candidate plant species.

Periodically disturbed annual grassland provides little habitat value for most wildlife species. However, native and non-native forbs present in this community can provide low quality foraging habitat for various insects and pollinators.

3.3.6 Mariposa Creek

The action area contains Mariposa Creek, a perennial creek that travels through the west portion of the site. Mariposa Creek travels through the red willow riparian woodland on-site and through a culvert under Fournier Road. This creek conveys flows off-site which travel approximately 16 miles before emptying into Mariposa Reservoir. Broadleaf cattail (*Typha latifolia*) was growing in shallow sections within the OHWM of this creek. There were no invasive species observed within Mariposa Creek. The regular flow of Mariposa Creek limits the species that can occur to aquatic and emergent vegetation. Therefore, this feature is not likely to provide habitat for any listed or candidate plant species.

Mariposa Creek is part of the Lower Mariposa drainage basin and the larger San Joaquin River System. It drains into Mariposa Reservoir approximately 16 miles southwest of the action area and contains riparian woodland. Aquatic and semi-aquatic wildlife may utilize the creek for dispersal. While the reach of the creek within the action area appears to contain perennial water, breeding habitat is of marginal quality. This reach generally lacks the required microhabitat features (e.g., deep pooling features and dense emergent vegetation) required to support breeding habitat for wildlife species. However, there are upland basking sites and isolated areas within Mariposa Creek that contain rocky substrates for amphibian oviparity, which may provide habitat for FYLF and NPT.

3.3.7 Ephemeral Drainage

The action area contains a roadside ephemeral drainage that conveys roadway storm flows through multiple underground culvert segments. There were no obligate wetland or facultative wetland species present within these drainages; however, there were two facultative shrubs present: Himalayan blackberry and Pacific blackberry (*Rubus ursinus*). Other species present within the drainages includes milk thistle (*Silybum marianum*), greater periwinkle (*Vinca major*), California poppy (*Eschscholzia californica*), canyon nemophila (*Nemophila heterophylla*), and ripgut brome (*Bromus diandrus*). Himalayan blackberry is listed as Invasive: High by the Cal-IPC. Greater periwinkle and ripgut brome are listed as Invasive: Moderate by the Cal-IPC. Milk thistle is listed as Invasive: Limited by the Cal-IPC. These features were adjacent to Fournier Road and dirt access roads and had been previously impacted by the installation of culverts, as evidenced by the non-native and invasive species within these areas. Therefore, these features are not likely to provide habitat for any listed or candidate plant species.

The ephemeral drainage located on the action area is hydrologically connected to Mariposa Creek. There is riparian habitat present near where the downstream ephemeral drainage segment connects with the red willow riparian woodland surrounding Mariposa Creek. These features lack perennial water and do not support breeding habitat for aquatic or semi-aquatic wildlife species. Wildlife species, including FYLF and NPT, may utilize these drainages segments in a dispersal capacity from

Mariposa Creek in search of areas of higher quality habitat located outside the action area.

3.3.8 Underground Culvert Segments

The action area contains multiple underground culvert pipe segments that transport ephemeral flows into roadside drainage segments. The action area also contains a single culvert that conveys the flows of Mariposa Creek underneath Fournier Road. No plants were observed growing within these culverts. There were no invasive species observed within the underground culvert segments. These features do not contain habitat to support any listed or candidate plant species.

Given the artificial nature of the culvert pipes and the lack of soil or vegetation present within them, these features do not currently provide any additional habitat value beyond the potential to transport flows between the roadside ephemeral drainage segments along Fournier Road and the conveyance of flows underneath Fournier Road. It is unlikely that these features would provide suitable habitat for wildlife species.

3.4 Status of Federally Listed/Proposed Species

Database queries of the USFWS IPaC database (USFWS 2026), the CDFW CNDDB (CDFW 2026), and the CNPS Inventory (CNPS 2026) (Appendix A) identified 11 federally listed or candidate species with the potential to occur in the action area, as described below.

3.4.1 California Tiger Salamander

3.4.1.1 Discussion of California Tiger Salamander

CTS is listed as threatened under the federal Endangered Species Act and California Endangered Species Act. This species is found in grassland, savanna, and open woodland habitats. CTS need underground refuges as they lives in vacant or mammal-occupied burrows throughout most of the year, especially ground squirrel burrows. This species requires nearby vernal pools or other seasonal water sources for breeding.

3.4.1.2 Survey Results for California Tiger Salamander

There have been no occurrences of CTS recorded within 15 miles of the project action area. No evidence of CTS was observed during the reconnaissance-level field survey.

The project action area contains disturbed grassland, small patches of oak-pine woodland, and Mariposa Creek but does not contain any burrows or seasonal water sources that would provide suitable breeding habitat for CTS.

3.4.1.3 Status of Designated Critical Habitat in the Action Area for California Tiger Salamander

There is no designated critical habitat for CTS located within the project action area.

3.4.2 Foothill Yellow-legged Frog

3.4.2.1 Discussion of Foothill Yellow-legged Frog

FYLF is listed as endangered under the federal Endangered Species Act and California Endangered Species Act. This species is found in partly shaded, shallow streams in a variety of habitats. FYLF requires streams with riffles and cobble-sized rocky substrate for egg-laying. This species requires at least 15 weeks of water to attain metamorphosis.

3.4.2.2 Survey Results for Foothill Yellow-legged Frog

There was one occurrence of FYLF approximately 8 miles north of the project action area in 2017, in a bedrock stream with pools and ripples. The was on occurrence of FYLF recorded in the general vicinity of Mariposa in 1899. There have been may additional occurrences of FYLF recorded within 10 miles of the project action area that are marked as extirpated. No evidence of FYLF was observed during the reconnaissance-level field survey.

The project action area contains Mariposa Creek, a perennial creek with some rocky sections that may provide marginally suitable habitat for FYLF.

3.4.2.3 Status of Designated Critical Habitat in the Action Area for Foothill Yellow-legged Frog

No critical habitat has been designated for FYLF.

3.4.3 California Red-legged Frog

3.4.3.1 Discussion of California Red-legged Frog

CRLF is listed as threatened under the federal Endangered Species Act and is a California Species of Special Concern. This species is found in lowlands and foothills in or near permanent sources of deep water with riparian vegetation. CRLF requires 11–20 weeks of permanent water for larval development and access to nearby estivation habitat.

3.4.3.2 Survey Results for California Red-legged Frog

There have been no occurrences of CRLF recorded within 20 miles of the project action area. No evidence of CRLF was observed during the reconnaissance-level field survey.

The project action area contains Mariposa Creek, which has aquatic vegetation, and nearby estivation habitat.

3.4.3.3 Status of Designated Critical Habitat in the Action Area for California Red-legged Frog

There is no designated critical habitat for CRLF located within the project action area.

3.4.4 Sierra Nevada Yellow-legged Frog

3.4.4.1 Discussion of Sierra Nevada Yellow-legged Frog

SNYLF is listed as endangered under the federal Endangered Species Act and threatened under the California Endangered Species Act. This species is always found within a few feet of water. SNYLF tadpoles may require 2–4 years to complete their aquatic development.

3.4.4.2 Survey Results for Sierra Nevada Yellow-legged Frog

There was one occurrence of SNYLF recorded in Sweetwater Creek in 1915, approximately 7.5 miles northeast of the action area; however, this is marked as possibly extirpated. There have been no other occurrences of SNYLF recorded within 10 miles of the project action area. No evidence of SNYLF was observed during the reconnaissance-level field survey.

The project action area contains disturbed Mariposa Creek; however, this creek appears to run dry periodically and likely would not provide suitable breeding habitat for SNYLF.

3.4.4.3 Status of Designated Critical Habitat in the Action Area for Sierra Nevada Yellow-legged Frog

There is no designated critical habitat for SNYLF located within the project action area.

3.4.5 Western Spadefoot

3.4.5.1 Discussion of Western Spadefoot

WESP is proposed to be listed as threatened under the federal Endangered Species Act and is a California Species of Special Concern. This species occurs primarily in grassland habitats but can also be found in valley-foothill hardwood woodlands. WESP requires vernal pools for breeding and egg-laying.

3.4.5.2 Survey Results for Western Spadefoot

There was one occurrence of WESP recorded approximately 11 miles east of the project action area in 1952. There have been no other occurrences recorded within 15 miles of the project action area. No evidence of WESP was observed during the reconnaissance-level field survey.

The project action area contains disturbed patches of roadside grassland and does not contain vernal pools, and thus would not provide suitable habitat for WESP.

3.4.5.3 Status of Designated Critical Habitat in the Action Area for Western Spadefoot

No designated critical habitat has been designated for WESP.

3.4.6 California Condor

3.4.6.1 Discussion of California Condor

CACO is listed as endangered under the federal Endangered Species Act and California Endangered Species Act and is protected under the MBTA. This species is found in deep canyons and mountains ranges near vast expanses of open savannah, grasslands, and foothill chaparral. CACO requires large rocky walls with clefts to provide nesting sites.

3.4.6.2 Survey Results for California Condor

There have been no occurrences of CACO recorded within this region of the Sierra Nevada Range. No evidence of CACO was observed during the reconnaissance-level field survey.

The project action area does not contain foothill grasslands, savannah, chaparral, or canyons.

3.4.6.3 Status of Designated Critical Habitat in the Action Area for California Condor

There is no designated critical habitat for CACO located within the project action area.

3.4.7 Valley Elderberry Longhorn Beetle

3.4.7.1 Discussion of Valley Elderberry Longhorn Beetle

VELB is listed as threatened under the federal Endangered Species Act. This species is found in the Central Valley of California associated with blue elderberry (*Sambucus mexicana*). VELB prefer to lay eggs in elderberries 2–8 inches in diameter, with some preference shown for "stressed" plants.

3.4.7.2 Survey Results for Valley Elderberry Longhorn Beetle

There was one male collected in the general vicinity of Mariposa in 1974. There was a set of possible exit holes found on a non-riparian elderberry shrub in 2007, approximately 4.5 miles south of the project action area.

The project action area does not contain elderberry.

3.4.7.3 Status of Designated Critical Habitat in the Action Area for Valley Elderberry Longhorn Beetle

No critical habitat has been designated for VELB.

3.4.8 Monarch Butterfly

3.4.8.1 Discussion of Monarch Butterfly

MOBU is proposed to be listed as threatened under the federal Endangered Species Act. This species overwinters in coastal California. MOBU roosts in eucalyptus, Monterey pine, and cypress groves that are wind protected and have nectar and water sources nearby.

3.4.8.2 Survey Results for Monarch Butterfly

There have been no MOBU roosts recorded in this region of the Sierra Nevada Range. No evidence of MOBU was observed during the reconnaissance-level field survey.

The project action area does not contain groves of eucalyptus, Monterey pine, or cypress.

3.4.8.3 Status of Designated Critical Habitat in the Action Area for Monarch Butterfly

There is no designated critical habitat for MOBU located within the project action area.

3.4.9 Fisher

3.4.9.1 Discussion of Fisher

FISH is listed as endangered under the federal Endangered Species Act and threatened under the California Endangered Species Act. This species is found in large areas of mature dense forest, typically in intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. FISH use cavities, snags, logs and rocky areas for cover and denning.

3.4.9.2 Survey Results for Fisher

There was one occurrence recorded in the vicinity of Fish Camp in 1971, approximately 19 miles east of the project action area. All other recorded occurrences are farther east in the Sierra Nevada Mountains. No evidence of FISH was observed during the reconnaissance-level field survey.

The project action area contains red willow riparian woodland surrounding Mariposa Creek.

3.4.9.3 Status of Designated Critical Habitat in the Action Area for Fisher

There is no proposed or designated critical habitat for FISH located within the project action area.

3.4.10 Northwestern Pond Turtle

3.4.10.1 Discussion of Northwestern Pond Turtle

NPT is proposed to be listed as threatened under the federal Endangered Species Act and is a California Species of Special Concern. This species nests in ponds, marshes, rivers, streams, and irrigation ditches, typically with aquatic vegetation. NPT also requires adjacent upland habitat for basking.

3.4.10.2 Survey Results for Northwestern Pond Turtle

There was one undated NPT specimen collected in the general vicinity of Mariposa. There have been no other CNDDB occurrences recorded within 9 miles of the project action area. There was one occurrence recorded on iNaturalist approximately 7.5 miles north of the project action area in 2017. No evidence of NPT was observed during the reconnaissance-level field survey.

The project action area contains Mariposa Creek, a perennial creek with cattails, willow riparian woodland, and nearby grassland areas.

3.4.10.3 Status of Designated Critical Habitat in the Action Area for Northwestern Pond Turtle

No critical habitat has been designated for NPT.

3.4.11 Mariposa Pussypaws

3.4.11.1 Discussion of Mariposa Pussypaws

Mariposa pussypaws is an annual herb in the Montiaceae family. This species is listed as threatened under the federal Endangered Species Act and has a California Rare Plant Rank (CRPR) of 1B.1. Mariposa pussypaws is found in chaparral and cismontane woodland and grows in granitic, sometimes gravelly, sometimes sandy soils. This species occurs from 400 to 1,100 meters above sea level and blooms from April through August.

3.4.11.2 Survey Results for Mariposa Pussypaws

There was one occurrence of Mariposa pussypaws recorded within 5 miles of the project action area in the last 20 years. No evidence of Mariposa pussypaws was observed during the reconnaissance-level field survey.

The project action area contains small patches of oak-pine woodland that likely would not provide suitable habitat and does not contain gravelly or sandy soils that would support this species.

3.4.11.3 Status of Designated Critical Habitat in the Action Area for Mariposa Pussypaws

No critical habitat has been designated for Mariposa pussypaws.

Chapter 4. Effects of the Action

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including consequences of other activities that are caused by the proposed action. The analysis of effects of the action first identifies stressors from project actions, then exposure to stressors, and finally the response to exposure to stressors to determine consequences. The effects of the action are used to make determinations for each listed species and critical habitat. Impacts of the proposed action on vegetation communities and land cover types are detailed in Table 3 and shown in Figure 7.

Table 3. Impacts to Vegetation Communities and Land Cover Types from the Proposed Action

Vegetation Community / Land Cover Type	Impacts (acre)
Developed	0.62
Dirt access road	0.01
Interior live oak-gray pine woodland	0.38
Red willow riparian woodland	0.17
Wild oat-annual brome grassland	0.26
Mariposa Creek	0.03
Ephemeral Drainage	0.01
Underground culvert segment	0.0023
Total Area	1.48



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

Figure 7
Project Impacts Map

4.1 Stressors from the Action

Stressors induce an adverse response in an organism by any physical, chemical, or biological alteration of the environment that can lead to a response from the individual.

4.1.1 Foothill Yellow-legged Frog

The following proposed action activities have the potential to cause direct and/or indirect effects on FYLF and its habitat:

- Vegetation and tree removal
- Excavation and earth-moving activities
- Temporary stream diversion
- Permanent streambed alterations
- Building of new roadway culvert

4.1.2 Northwestern Pond Turtle

The following proposed action activities have the potential to cause direct and/or indirect effects on NPT and its habitat:

- Vegetation and tree removal
- Excavation and earth-moving activities
- Temporary stream diversion
- Permanent streambed alterations
- Building of new roadway culvert

4.2 Exposure to Stressors from the Action

Exposures are defined as the interaction of the species, their resources, and the stressors that result from the project action.

4.2.1 Foothill Yellow-legged Frog

The following exposure to stressors may result from the direct and/or indirect effects of the proposed action activities:

- Dispersing FYLF individuals may be impacted by placement of construction material or daily operation of construction equipment.
- Dispersing FYLF individuals may become trapped in trenches or holes.
- Stream diversions may temporarily reduce habitat used by FYLF individuals.
- Larval or egg-laying FYLF individuals may be crushed during streambed alterations.
- Erosion control materials that are not wildlife-friendly could injure or kill FYLF individuals.
- Hazardous or toxic substances that may be released into Mariposa Creek could degrade FYLF habitat or injure FYLF individuals.

- Spread of invasive species into Mariposa Creek could degrade FYLF habitat.

4.2.2 Northwestern Pond Turtle

The following exposure to stressors may result from the direct and/or indirect effects of the proposed action activities:

- Dispersing NPT individuals may be impacted by placement of construction material or daily operation of construction equipment.
- Dispersing NPT individuals may become trapped in trenches or holes.
- Stream diversions may temporarily reduce habitat used by NPT individuals.
- NPT individuals may be crushed during streambed alterations.
- Erosion control materials that are not wildlife-friendly could injure or kill NPT individuals.
- Hazardous or toxic substances that may be released into Mariposa Creek could degrade NPT habitat or injure NPT individuals.
- Spread of invasive species into Mariposa Creek could degrade NPT habitat.

4.3 Response to the Exposure

This section describes the behavioral, physiological, and/or physical responses that special-status species may have if exposed to the stressors from the proposed actions.

4.3.1 Foothill Yellow-legged Frog

The following behavioral, physiological, and/or physical responses may be expressed by FYLF individuals if exposed to the stressors from the proposed actions:

- FYLF individuals may alert, startle, flush, flee, or avoid disturbance from the proposed actions. These effects would be temporary and construction would take place during the dry season, avoiding the most active dispersal period for FYLF.
- FYLF individuals may experience physiological stress effects due to being trapped in trenches or holes. These effects could be long-term and result in injury or death if FYLF individuals are not able to escape. Trenches and holes would be covered during construction to prevent FYLF individuals from being stuck in trenches.
- FYLF individuals may be injured or killed through vegetation removal or excavation actions in Mariposa Creek. The proposed action would include pre-construction surveys and exclusion fencing for FYLF that would prevent take of FYLF.
- FYLF individuals may experience physiological stress effects due to release of hazardous or toxic substances into Mariposa Creek. This would be a potentially long-term effect; however, the proposed action would implement water quality

best management practices, which would prevent illness or injury to FYLF habitat and individuals.

4.3.2 Northwestern Pond Turtle

The following behavioral, physiological, and/or physical responses may be expressed by NPT individuals if exposed to the stressors from the proposed actions:

- NPT individuals may alert, startle, flush, flee, or avoid disturbance from the proposed actions. These effects would be temporary and construction would take place during the dry season, avoiding the most active dispersal period for FYLF.
- NPT individuals may experience physiological stress effects due to being trapped in trenches or holes. These effects could be long-term and result in injury or death if NPT individuals are not able to escape. Trenches and holes would be covered during construction to prevent NPT individuals from being stuck in trenches.
- NPT individuals may be injured or killed through vegetation removal or excavation actions in Mariposa Creek. The proposed action would include pre-construction surveys and wildlife exclusion fencing for NPT that would prevent take of NPT.
- NPT individuals may experience physiological stress effects due to release of hazardous or toxic substances into Mariposa Creek. This would be a potentially long-term effect; however, the proposed action would implement water quality best management practices, which would prevent illness or injury to NPTs habitat and individuals.

4.4 Effects of the Action

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur (50 CFR §402.17). Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR §402.02). The effect of the action is the consequence (behavioral, physical, or physiological) of a response to a stressor.

A conclusion that activities are reasonably certain to occur must be based on clear and substantial information, using the best scientific and commercial data available. Factors to consider whether an activity caused by the proposed action is reasonably certain to occur include, but are not limited to: past experiences with similar activities that have resulted from actions that are similar in scope, nature, and magnitude to the proposed action; existing plans for the activities; and any remaining economic, administrative, and legal requirements necessary for the activity to go forward.

Considerations for determining a consequence to the species or critical habitat is not caused by the proposed action include, but are not limited to: the consequence is so

remote in time from the proposed action that it is not reasonably certain to occur; or the consequence is so geographically remote from the immediate area involved in the proposed action that it is not reasonably certain to occur; or the consequence is only reached through a lengthy causal chain that involves so many steps as to make the consequence not reasonably certain to occur (50 CFR §402.17).

4.4.1 Foothill Yellow-legged Frog

There is no critical habitat for FYLF located within the project action area. There was no evidence of FYLF observed within the project action area during the reconnaissance-level field survey. Mariposa Creek provides potentially suitable habitat; however, the quality of the habitat is low due to the history of disturbance and ongoing vehicular use of Fournier Road that has resulted in an abundance of non-native and invasive plant species. However, it cannot be ruled out that FYLF individuals may use Mariposa Creek to disperse into more suitable habitat. The section of Mariposa Creek that would be impacted by the proposed action is a very small section of Mariposa Creek overall. The avoidance and minimization measures that would be implemented by the proposed action would prevent take of FYLF. As such, the proposed action may impact, but is not likely to adversely affect, FYLF.

4.4.2 Northwestern Pond Turtle

There is no critical habitat for NPT located within the project action area. There was no evidence of NPT observed within the project action area during the reconnaissance-level field survey. Mariposa Creek provides potentially suitable habitat; however, the quality of the habitat is low due to the history of disturbance and ongoing vehicular use of Fournier Road that has resulted in an abundance of non-native and invasive plant species. However, it cannot be ruled out that NPT individuals may use Mariposa Creek to disperse into more suitable habitat. The section of Mariposa Creek that would be impacted by the proposed action is a very small section of Mariposa Creek overall. The avoidance and minimization measures that would be implemented by the proposed action would prevent take of NPT. As such, the proposed action may impact, but is not likely to adversely affect NPT.

4.5 Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area described in this Biological Assessment. Future federal actions that are unrelated to the proposed action are not considered in this cumulative effects analysis because those actions will require separate consultation pursuant to Section 7 of the federal Endangered Species Act.

Cumulative effects of the proposed action are not described as part of this analysis because all listed species and designated critical habitat within the action area are not likely to be adversely affected by the proposed action.

4.6 Discussion Supporting Determination

The project action area contained suitable habitat for four federally listed or candidate species: foothill yellow-legged frog, California red-legged frog, fisher, and

northwestern pond turtle. There have been recent occurrences of FYLF and NPT recorded in the vicinity of the action area. There have not been any recent occurrences recorded of CRLF or FISH in the nearby vicinity of the action area, as described in Section 3.4 above. As such, the proposed action is expected to have no effect on CRLF or FISH.

4.7 Determination

4.7.1 Species and critical habitat determination

1) No Effect

A no effect determination was made for the following species and designated critical habitat. No consultation is required.

- California tiger salamander–central DPS (pop. 1)
- California red-legged frog
- Sierra Nevada yellow-legged frog
- Western spadefoot
- California condor
- Monarch butterfly
- Valley elderberry longhorn beetle
- Fisher - southern Sierra Nevada ESU (pop. 2)
- Mariposa pussypaws

2) May Affect-Not Likely to Adversely Affect

A may affect-not likely to adversely affect determination was made for the following species and designated critical habitat. Informal consultation is required.

- Foothill yellow-legged frog - south Sierra DPS (pop. 5)
- Northwestern pond turtle

Chapter 5. Essential Fish Habitat Assessment

The action area is located outside of the NOAA's Fisheries; therefore, an NOAA Fisheries Species List and an essential fish habitat (EFH) analysis are not included within this report.

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Appendix A Database Queries

United States Department of the Interior

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Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 01/26/2026 19:23:26 UTC
Project Code: 2026-0000714
Project Name: Fournier Road Improvement Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2026-0000714

Project Name: Fournier Road Improvement Project

Project Type: Culvert Repair/Replacement/Maintenance

Project Description: The proposed project is located in Mariposa County along Fournier Road, beginning approximately 200 feet south of Antone Road and extending northeast to Joe Howard Street. Fournier Road is a two-way, 15-foot-wide roadway located in the southwest portion of the unincorporated community of Mariposa. Fournier Road consists of two lanes and is mostly unstriped except for a 100-foot section of striping near its intersection with Joe Howard Street. Fournier Road intersects Joe Howard Street approximately 75 feet south of State Route 49. Fournier Road crosses over Mariposa Creek at a low water crossing near the southern portion of the project site. The existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events.

The project site is approximately 0.23 mile long and would consist primarily of roadway widening and associated improvements. The project site is 1.93 acres, including 0.47 acre of ground disturbance and 1.01 acres of street improvements. Proposed improvements would span the entire 0.23-mile length of the roadway and would include widening Fournier Road to two 12-foot travel lanes and construction of a sidewalk, curb and gutter, detention basin, and a bridge, as well as on-street parking adjacent to the cemetery. The proposed project would also include grading, right-of-way dedication, and relocation of utilities, including water, sewer, storm drain, fiber optic, and electrical facilities. The cemetery driveway would be realigned to address safety concerns near the intersection of Fournier Road and Joe Howard Street. A total of 36 trees would be removed. To accommodate roadway widening and the construction of a sidewalk along the southeast side of Fournier Road, fill-slope conform grading would be required throughout most of the project length. The roadway widening would require additional right-of-way dedication from the cemetery. The proposed detention basin would accommodate increased runoff from new impervious surfaces created by the roadway widening.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.49177985,-119.97673974415599,14z



Counties: Mariposa County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Fisher *Pekania pennanti*	Endangered

Population: SSN DPS
There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3651
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus*	Endangered

Population: Wherever found, except where listed as an experimental population
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/8193
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata*	Proposed Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1111
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

Foothill Yellow-legged Frog *Rana boylii*	Endangered

Population: South Sierra Distinct Population Segment (South Sierra DPS)
There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/5133
General project design guidelines:

NAME	STATUS

https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Mariposa Pussypaws *Calyptridium pulchellum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2695	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Juliet Simpson
Address:	2999 Oak Road
Address Line 2:	Suite 250
City:	Walnut Creek
State:	CA
Zip:	94597
Email	jsimpson@fcs-intl.com
Phone:	8888265814

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Mariposa (3711948) OR Feliciana Mtn. (3711958) OR Buckingham Mtn. (3711957) OR Horsecamp Mountain (3711937) OR Ben Hur (3711938) OR Stumpfield Mtn. (3711947) OR Illinois Hill (3712031) OR Catheys Valley (3712041) OR Bear Valley (3712051))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Allium yosemitense Yosemite onion	PMLIL022L0	None	Rare	G3	S3	1B.3
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Calochortus clavatus var. avius Pleasant Valley mariposa-lily	PMLIL0D095	None	None	G4T2T3	S2S3	1B.2
Calyptridium pulchellum Mariposa pussypaws	PDPOR09060	Threatened	None	G1	S1	1B.1
Camissonia lacustris grassland suncup	PDONA030W0	None	None	G2	S2	1B.2
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Clarkia biloba ssp. australis Mariposa clarkia	PDONA05051	None	None	G4G5T3	S3	1B.2
Clarkia rostrata beaked clarkia	PDONA050Y0	None	None	G2G3	S2S3	1B.3
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Cryptantha mariposae Mariposa cryptantha	PDBOR0A1Q0	None	None	G2G3	S2S3	1B.3
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Desmona bethula amphibious caddisfly	IITRI77010	None	None	G2G3	S2S3	
Diplacus pulchellus yellow-lip pansy monkeyflower	PDSCR1B280	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Entosthodon kochii Koch's cord moss	NBMUS2P050	None	None	G1	S1S2	1B.3
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erigeron mariposanus Mariposa daisy	PDAST3M5L0	None	None	GX	SX	1A
Eriophyllum congdonii Congdon's woolly sunflower	PDAST3N030	None	Rare	G2	S2	1B.2
Erythranthe filicaulis slender-stemmed monkeyflower	PDPHR012H0	None	None	G2	S2	1B.2
Erythranthe gracilipes slender-stalked monkeyflower	PDSCR1B1C0	None	None	G2	S2	1B.2
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydromantes brunus limestone salamander	AAAAD09010	None	Threatened	G2G3	S2S3	FP
Hydroporus leechi Leech's skyline diving beetle	IICOL55040	None	None	G3	S2S3	
Leptosiphon serrulatus Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
Lomatium congdonii Congdon's lomatium	PDAPI1B0B0	None	None	G2	S2	1B.2
Lupinus citrinus var. deflexus Mariposa lupine	PDFAB2B102	None	Threatened	G2T1T2	S1	1B.2
Lupinus spectabilis shaggyhair lupine	PDFAB2B3P0	None	None	G2	S2	1B.2
Monadenia yosemitensis Yosemite sideband	IMGASZ3010	None	None	G1	S1S2	
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Philotiella speciosa bohartorum Boharts' blue butterfly	IILEPG3011	None	None	G3T1	S1	
Rana boylii pop. 5 foothill yellow-legged frog - south Sierra DPS	AAABH01055	Endangered	Endangered	G3T2	S2	
Rana sierrae Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G2	S2	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC

Record Count: 40

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

39 matches found. Click on scientific name for details

Search Criteria: , CRPR is one of [1A:1B:2A:2B:3:4] , 9-Quad include [3711958:3711957:3711948:3711937:3711938:3711947:3712031:3712041:3712051]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Allium sanbornii var. *congdonii*	Congdon's onion	Alliaceae	None	None	G3T3	S3	4.3
Allium yosemitense	Yosemite onion	Alliaceae	None	CR	G3	S3	1B.3
Amsinckia furcata	forked fiddleneck	Boraginaceae	None	None	G4	S4	4.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	None	None	G2	S2	1B.2
Calochortus clavatus var. *avius*	Pleasant Valley mariposa-lily	Liliaceae	None	None	G4T2T3	S2S3	1B.2
Calyptridium pulchellum	Mariposa pussypaws	Montiaceae	FT	None	G1	S1	1B.1
Camissonia lacustris	grassland suncup	Onagraceae	None	None	G2	S2	1B.2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	None	None	G4	S4	4.3
Clarkia biloba ssp. *australis*	Mariposa clarkia	Onagraceae	None	None	G4G5T3	S3	1B.2

Clarkia rostrata	beaked clarkia	Onagraceae	None	None	G2G3	S2S3	1B.3
Clarkia virgata	Sierra clarkia	Onagraceae	None	None	G3	S3	4.3
Cryptantha mariposae	Mariposa cryptantha	Boraginaceae	None	None	G2G3	S2S3	1B.3
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	None	None	G4G5	S4	4.2
Delphinium hansenii ssp. *ewanianum*	Ewan's larkspur	Ranunculaceae	None	None	G4T3	S3	4.2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	None	None	G2?	S2	1B.2
Diplacus pulchellus	yellow-lip pansy monkeyflower	Phrymaceae	None	None	G2	S2	1B.2
Entosthodon kochii	Koch's cord moss	Funariaceae	None	None	G1	S1S2	1B.3
Erigeron mariposanus	Mariposa daisy	Asteraceae	None	None	GX	SX	1A
Eriogonum tripodum	tripod buckwheat	Polygonaceae	None	None	G4	S4	4.2
Eriophyllum confertiflorum var. *tanacetiflorum*	tansy-flowered woolly sunflower	Asteraceae	None	None	G5T2?Q	S2?	4.3
Eriophyllum congdonii	Congdon's woolly sunflower	Asteraceae	None	CR	G2	S2	1B.2
Erythranthe acutidens	Kings River monkeyflower	Phrymaceae	None	None	G2G3	S2S3	3
Erythranthe filicaulis	slender-stemmed monkeyflower	Phrymaceae	None	None	G2	S2	1B.2
Erythranthe gracilipes	slender-stalked monkeyflower	Phrymaceae	None	None	G2	S2	1B.2

Erythranthe grayi	Gray's monkeyflower	Phrymaceae	None	None	G2G3Q	S2S3	4.3
Erythranthe inconspicua	small-flowered monkeyflower	Phrymaceae	None	None	G4	S4	4.3
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	None	None	G4T3	S3	4.3
Hesperevax caulescens	hogwallow starfish	Asteraceae	None	None	G3	S3	4.2
Horkelia parryi	Parry's horkelia	Rosaceae	None	None	G2	S2	1B.2
Jensia yosemitana	Yosemite tarplant	Asteraceae	None	None	G3	S3	3.2
Jepsonia heterandra	foothill jepsonia	Saxifragaceae	None	None	G3	S3	4.3
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	None	None	G3	S3	1B.2
Lomatium congdonii	Congdon's lomatium	Apiaceae	None	None	G2	S2	1B.2
Lupinus citrinus var. *deflexus*	Mariposa lupine	Fabaceae	None	CT	G2T1T2	S1	1B.2
Lupinus spectabilis	shaggyhair lupine	Fabaceae	None	None	G2	S2	1B.2
Mielichhoferia elongata	elongate copper moss	Mielichhoferiaceae	None	None	G5	S3S4	4.3
Perideridia bacigalupii	Bacigalupi's yampah	Apiaceae	None	None	G3	S3	4.2
Selaginella asprella	bluish spike-moss	Selaginellaceae	None	None	G4	S4	4.3
Wyethia elata	Hall's wyethia	Asteraceae	None	None	G4	S4	4.3

Showing 1 to 39 of 39 entries

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Suggested Citation:
California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 26 January 2026].
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Appendix B Biologist Qualifications

Juliet Simpson, MS

Associate Biologist

OVERVIEW

More than 7 years of experience

EDUCATION

Master of Science, Biological Sciences, University of Northern Colorado, Greeley, CO, 2022

Bachelor of Science, Environmental Studies, Prescott College, Prescott, AZ, 2016

PERMIT

Plant Voucher Collecting Permit No. 2081(a)-25-116-V, California Department of Fish and Wildlife, 2025–2027

TRAINING AND CERTIFICATION

Certified Field Botanist No. 0098, California Native Plant Society, 2025

38-hour Army Corps of Engineers Wetlands Delineation Training Program, Certification No. 9541 and 3.8 CEUS, Richard Chinn Environmental Training, Inc., 2025

TECHNICAL EXPERTISE

Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS)

Specify 6

GEOLocate

Juliet Simpson, MS, is a Biologist with more than 7 years of relevant experience in conducting biological field surveys, including protocol-level surveys, jurisdictional delineation, and monitoring, for a variety of rare and sensitive plant and animal species. Her expertise includes data collection and analysis, implementation and monitoring, special-status species surveys, and plant specimen collections. She has extensive experience in conducting rare plant surveys; tree inventories; habitat assessments, restoration, and monitoring; wetland/jurisdictional delineations; and biological resources construction monitoring. She has substantial knowledge of the process and documentation involved in completing biological surveys, including, but not limited to, CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants, USFWS Santa Rosa Plain Conservation Strategy, San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, California Native Species Field Survey Forms, Combined Vegetation Rapid Assessment and Relevé Field Forms, Ordinary High Water Mark Data Sheets, and Wetland Data Forms.

Related Experience and Client Summary

- **Airport Village Rare Plant Survey Report and Biological Resource Assessment, Sonoma County, CA:** Ms. Simpson conducted a general biological survey and protocol-level rare plant surveys for plant species covered under the Santa Rosa Plain Conservation Strategy, including Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnanthes vinculans*), and many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*). She identified plant and wildlife species on the project site and mapped and completed Combined Vegetation Rapid Assessment and Relevé Field Forms for sensitive natural communities, including small fescue (*Festuca microstachys*) grassland, smooth goldfields (*Lasthenia glaberrima*)-annual semaphore grass (*Pleuropogon californicus* var. *californicus*) vernal pool bottom, and valley oak (*Quercus lobata*)-arroyo willow (*Salix lasiolepis*) riparian woodland. She prepared a rare plant survey report and a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to species and communities covered under the Santa Rosa Plain Conservation Strategy, including California Tiger Salamander (*Ambystoma californiense*), Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam, many-flowered navarretia, and vernal pools, and provided mitigation recommendations.

- **Calle de los Romos Project Burrowing Owl Surveys, Riverside County, CA:** Ms. Simpson participated in burrowing owl (*Athene cunicularia*) surveys on the project site. She assisted in identifying and mapping eight individuals and forty-three burrows within the project site and buffer.
- **Saddleback Butte State Park Desert Tortoise Surveys, Los Angeles County, CA:** Ms. Simpson participated in desert tortoise (*Gopherus agassizii*) surveys at Saddleback Butte State Park. The survey identified one burrow with current-year scat located adjacent, indicating use that year.
- **Elworthy Property Residential Project Aquatic Resources Jurisdictional Delineation, Burrowing Owl Surveys, and Biological Resources Assessment, Town of Danville, CA:** Ms. Simpson conducted a general biological survey and jurisdictional delineation survey. She additionally participated in burrowing owl (*Athene cunicularia*) surveys on the project site. She completed Ordinary High Water Mark Data Sheets and Wetland Data Forms and prepared a comprehensive jurisdictional delineation report, including suggestions on which areas of the project site fall under federal and State jurisdictions. She also prepared a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.
- **La Honda Road-San Pablo Dam Road Pavement Repair Project Jurisdictional Delineation and Natural Environmental Study Minimal Impacts, Contra Costa County, CA:** Ms. Simpson conducted a general biological survey and jurisdictional delineation survey. She completed Ordinary High Water Mark Data Sheets and Wetland Data Forms and prepared a comprehensive jurisdictional delineation report, including suggestions on which areas of the project site fall under federal and State jurisdictions. She also prepared a Natural Environmental Study Minimal Impact (NES-MI) that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.
- **Tracy Development Project Rare Plant Survey Report and Biological Resources Assessment, City of Rancho Cucamonga, CA:** Ms. Simpson conducted a general biological survey and comprehensive protocol-level surveys for several rare plant species, including Plummer's mariposa lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower (*Dodecahema leptoceras*), wedgeleaf horkelia (*Horkelia cuneata* var. *puberula*), Southern California black walnut (*Juglans californica*), and Coulter's Matilija poppy (*Romneya coulteri*). She identified, mapped, and completed the California Native Species Field Survey Form for a population of more than 1,500 Plummer's mariposa lilies found on-site; analyzed project impacts; and provided mitigation recommendations. She also identified, mapped, and completed Combined Vegetation Rapid Assessment and Relevé Field Form for the sensitive natural community of white sage (*Salvia apiana*)-California sagebrush (*Artemisia californica*)-rabbitbrush (*Ericameria spp*.) shrubland association on-site. In addition, Ms. Simpson prepared a rare plant survey report, including the analysis of project impacts on the Plummer's mariposa lily population and white sage-California sagebrush-rabbitbrush sensitive natural community, and suggested mitigation recommendations. She also prepared a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.

Volunteer Experience

- **Big Chico Creek Ecological Reserve Amphibian Survey, Butte County, CA:** Ms. Simpson participated in an amphibian survey at Butte Chico Creek Ecological Reserve. She assisted in finding, identifying, and recording common amphibian species including chorus frog (*Pseudacris regilla*), Sierra newt (*Taricha sierrae*), and California slender salamander (*Batrachoseps attenuatus*), as well as six foothill yellow-legged frog – Feather River DPU individuals (*Rana boylii pop. 2*), a federally and state threatened species.
- **San Francisco Bay Area Bird Observatory Pacific Flyway Shorebird Survey, Alameda County, CA:** Ms. Simpson participated in the 2025 annual Pacific Flyway Shorebird Survey with the San Francisco Bay Area Bird Observatory. She assisted in identifying and counting all shorebirds and raptors present within designated salt ponds in Hayward Regional Shoreline.

Workshops

- **Amphibians of the San Francisco Bay Area Workshop, Sonoma County, CA:** Ms. Simpson attended the full day lecture that examined all common and special-status amphibians that occur in the greater San Francisco Bay Area. She also attended the half day field trip where she handled common species including yellow-eyed ensatina (*Ensatina eschscholtzii xanthoptica*), rough-skinned newt (*Taricha granulosa*), and California slender salamander (*Batrachoseps attenuatus*). She also handled five California giant salamanders (*Dicamptodon ensatus*), a CDFW Species of Special Concern, out of eight total found, including multiple young larval as well as one to two-year-old larval individuals, an actively metamorphosing individual, and a full adult individual.

Prior Work Experience

- **Oregon Bureau of Land Management, Butte Falls Field Office, City of Medford, OR:** As a Biological Science Technician, Ms. Simpson conducted surveys and monitored sensitive species, including Gentner's fritillary (*Fritillaria gentneri*), Parish's nightshade (*Solanum parishii*), California wild hollyhock (*Iliamna latibracteata*), clustered lady's slipper (*Cyprepidium fasciculatum*), Siskiyou mariposa lily (*Calochortus persistens*), chaparral checkerbloom (*Sidalcea hickmanii* ssp. *petraea*), and Baker's cypress (*Hesperocyparis bakeri*). She conducted comprehensive surveys for rare species in timber sale and fuel treatment areas and recorded occurrences in a regional database. She authored detailed site reports, managed the Seeds of Success (SOS) collections and prepared the district's SOS Annual Report, and generated and fulfilled seed mix prescriptions for district-wide restoration projects. In addition, Ms. Simpson served as a Contract Inspector for two field offices. She made significant contributions to the district herbarium by reviewing and updating specimens for taxonomic accuracy and creating a workflow for the herbarium inventory. She managed the inventory of the Medford Seed Repository and updated it with ecological data. She also completed daily mileage logs, monthly checks, and other maintenance for federal vehicles.
- **McGlaughlin Lab, University of Northern Colorado, Greeley, CO:** As a Graduate Research Assistant, Ms. Simpson monitored rare species across western Colorado for the Bureau of Land Management (BLM). She monitored and surveyed Kremmling milkvetch (*Astragalus osterhoutii*), mosquito range mustard (*Eutrema penlandii*), stemless beardtongue (*Penstemon acaulis*), Graham's beardtongue (*Penstemon grahamii*), Harrington's beardtongue (*Penstemon harringtonii*), Penland beardtongue (*Penstemon penlandii*), White River beardtongue (*Penstemon scariosus* var. *albifluvis*), Yampa beardtongue (*Penstemon yampaensis*), Dudley Bluffs bladderpod (*Physaria congesta*), Dudley Bluffs twinpod (*Physaria*

obcordata), Dawson's hookless cactus (*Sclerocactus dawsonii*), and Colorado hookless cactus (*Sclerocactus glaucus*). She maintained long-term demographic plots and helped establish new monitoring plots. Additionally, she identified plants in the field for various projects and worked in the herbarium to catalog specimens using Specify and georeferenced specimens without coordinates using GEOLocate. Ms. Simpson collected genetic material from rare and endangered plant species, prepared and analyzed DNA libraries, and used data to inform best management practices. She also planned and executed overnight field excursions spanning multiple states. Her work involved operating individually, as part of a team, and leading transect teams of BLM interns.

- **The Great Basin Institute, Spring Mountains National Recreation Area, Clark and Nye Counties, NV:** As a Botany Field Team Lead, Ms. Simpson led botany technicians in field surveys for biological projects. She conducted and monitored comprehensive surveys for rare and target species, including Rough Angelica (*Angelica scabrida*), King's rosy sandwort (*Arenaria kingii* ssp. *rosea*), Clokey's milkvetch (*Astragalus aequalis*), egg milkvetch (*Astragalus oophorus* var. *clokeyanus*), uncial fleabane (*Erigeron uncialis* ssp. *conjugans*), Clokey's buckwheat (*Eriogonum heermannii* var. *clokeyi*), Clokey's greasebush (*Glossopetalon clokeyi*), pungent glossopetalon (*Glossopetalon pungens*), Jaeger's mousetail (*Ivesia jeageri*), Charleston lousewort (*Pedicularis semibarbata* var. *charlestonensis*), Pinto beardtongue (*Penstemon bicolor* ssp. *roseus*), Jaeger's beardtongue (*Penstemon thompsoniae* ssp. *jaegeri*), purple sage (*Salvia dorrii* ssp. *dorrii* var. *clokeyi*), Jones' Townsend daisy (*Townsendia jonesii* var. *tumulosa*), and Charleston violet (*Viola charlestonensis*). She also conducted larval host and nectar plant surveys for various butterfly species, including the Callippe silverspot butterfly (*Speyeria callippe callippe*), monarch butterfly (*Danaus plexippus*), Nevada admiral butterfly (*Limenitis weidemeyerii nevadae*), Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*), Spring Mountains Comma Skipper butterfly (*Hesperia comma*), Spring Mountains dark blue butterfly (*Euphilotes ancilla purpura*), and Spring Mountains Icarioides blue butterfly (*Plebejus icarioides austinorum*). She collected seeds and recorded data in accordance with the national SOS protocol, as well as analyzed, summarized, and displayed data in tables and maps using ArcGIS. She identified and added specimens to the US Forest Service (USFS) district herbarium and provided writing, summary tables, and ArcGIS-generated maps to internal and USFS project reports. She organized and helped lead a Boy Scout volunteer event, which focused on seed collection for SOS. Additionally, she maintained federal vehicles by completing daily mileage logs, monthly checks, and other routine maintenance tasks.
- **US Department of Agriculture Agricultural Research Service, Eastern Oregon Agricultural Research Center, Harvey and Malheur Counties, OR, and Elko County, NV:** As a Biological Science Technician, Ms. Simpson monitored short-term and long-term vegetation plots at post-fire sites, collected and processed vegetation, and recorded data for fuel moisture analysis. She conducted surveys of vegetation cover by species and functional groups for various studies in conservation biology and range management. She designed and successfully implemented a germination project for a restoration species, establishing a protocol for seed treatment in future growing projects. Ms. Simpson grew restoration species from seed and planted seedlings in remote project sites, as well as helped establish monitoring plots for new studies.

FCS



Robert Carroll

Senior Biologist

OVERVIEW

More than 16 years of experience

EDUCATION

Bachelor of Science, Fisheries Science, Concentration in Water Resources, Cum Laude, Oregon State University, Corvallis, OR, 2016

Bachelor of Arts, Marketing, College of Business Administration, Marquette University, Milwaukee, WI, 2007

LICENSES AND CERTIFICATIONS

Fairy Shrimp Identification Certification, 2017

Wetland Delineation Certification, 2018

AWARDS

Milt Guymon Endowment Scholar, 2015

Gerald L. Fisher Aquaculture and Hatchery Management Scholarship, 2015

PROFESSIONAL AFFILIATIONS AND VOLUNTEER WORK

Orange County Coastkeeper Beach Cleanup Team, 2013

Member, Marquette University Diversity Club, 2003–2005

Robert Carroll has more than 16 years of experience in environmental analysis, biological resources, and regulatory permitting. While working at the Oregon Department of Fish and Wildlife (ODFW), Mr. Carroll conducted spawning surveys of adult salmonids in numerous streams throughout the Willamette Valley. His experience at the ODFW also included spawning and rearing techniques at various ODFW run fish hatcheries for the dispersal of steelhead in lakes and rivers throughout the Corvallis watershed. Mr. Carroll also contributed to ODFW's preliminary study to document fish diversity throughout the Little Muddy Creek. As a Biologist and Regulatory Specialist, Mr. Carroll's expertise includes multi-agency regulatory permitting and compliance (NEPA, CEQA, and California and federal Endangered Species Acts), natural resource assessments, special-status flora and fauna species surveys, construction compliance monitoring, and wildlife habitat assessments. Mr. Carroll has extensive experience managing wetland delineation projects and performing regulatory permitting pursuant to the jurisdiction of the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), the US Army Corps of Engineers (USACE), and other local and regional agencies and organizations. He is well versed in the Clean Water Act (CWA) Sections 404 and 401 permitting and the CDFW Code 1602 permitting.

Related Experience and Client Summary

- **Tassajara Parks Project EIR, Contra Costa County, CA:** FCS prepared an EIR for this landmark project located outside the boundary of the existing urban limit line in Contra Costa County. The project site consists of two separate parcels: (1) a 155-acre northern site to be developed with 125 single-family residences, a walking trail, and trail staging area, and (2) a 616-acre southern site, the majority of which would be dedicated to the East Bay Regional Park District for permanent open space uses with two 5-acre parcels dedicated to the San Ramon Valley Unified School District and San Ramon Valley Fire Protection District. Mr. Carroll assisted in writing the Biological Resources section of the project EIR and providing responses to subsequent comments.
- **Scannell Properties Logistics Warehouse Project EIR, Contra Costa County, CA:** FCS prepared the EIR for the Scannell Properties Project in unincorporated Contra Costa County, in the North Richmond area. The applicant (Scannell Properties) proposes to build two warehouse fulfillment buildings totaling approximately 325,000 square feet on the 29.4-acre project site. The Contra Costa County General Plan designates the site as Heavy Industry (HI) and the site is located within the North Richmond P-1 Zoning District. The North Richmond community is disproportionately impacted by

air pollution. As a result, the project included construction best management practices, vehicle electrification and a transition to zero-emission fleet, and a Transportation Demand Management Plan to reduce emissions and improve air quality. Other areas of concern included GHG emissions, biological resources, cultural resources, and transportation. The Final EIR was unanimously approved by the County Planning Commission in September 2021. Mr. Carroll conducted the field survey, peer reviewed the applicant's supporting studies, and wrote the Biological Resources section of the EIR.

- **CenterPoint Properties Logistics Warehouse Project EIR, Contra Costa County, CA:** FCS prepared an EIR for the CenterPoint Properties Project located at 560 Brookside Drive in unincorporated Contra Costa County, near the Richmond city limits. The applicant (CenterPoint) is proposing to develop three warehouse buildings totaling 555,000 square feet on the 31.48-acre project site. Historically, the site was used as cut flower nurseries and farmland to grow row crops since the late 1920s. The Contra Costa County General Plan designates the site as Light Industry (LI) and Heavy Industry (HI) and the site is located within the Planned Unit District (P-1) Zoning District. Areas of concern included air quality and GHG emissions, biological resources, cultural resources, noise, and traffic. Mr. Carroll conducted the field survey, peer reviewed the applicant's supporting studies, and wrote the Biological Resources section of the EIR.
- **Oak Road Townhouse Condominiums Project EIR and Peer Review of Technical Studies, Contra Costa County, CA:** FCS prepared an EIR and peer reviewed technical studies for a proposed subdivision. The applicant (SummerHill Homes) is constructing 125 townhouse condominium units located in nineteen 3-story buildings and associated improvements on a 5.94-acre site in unincorporated Contra Costa County, adjacent to the City of Walnut Creek. The eight existing parcels are currently zoned Low- and Medium-density Single-family Residential (R-15), Medium- and High-density Multiple-family Residential (M-17), and High-density Multiple-family Residential (M-29). The project includes rezoning all eight parcels to Planned Unit District (P-1), a vesting tentative map to subdivide the parcels into 125 residential lots, and approval of a preliminary and final development plan. The Board of Supervisors approved the project on March 1, 2022. Mr. Carroll peer reviewed the applicant's BRA, provided comments to make the assessment CEQA-compliant, and used the applicant's analysis to author the Biological Resources section of the EIR.
- **Grayson Creek Outfalls Project, City of Pleasant Hill, CA:** As the CDFW-approved Monitor and Surveying Biologist (under Streambed Alteration Agreement [SAA] No. 1600-2019-0358-R3), Mr. Carroll conducted nesting bird and roosting bat surveys and construction monitoring. In addition, Mr. Carroll prepared the California red-legged frog (CRLF) (*Rana draytonii*) Habitat Assessment following the guidelines found in the Revise Guidance on Site Assessments and Field Surveys for the CRLF issued by the USFWS.
- **Oak Park Properties Specific Plan EIR, City of Pleasant Hill, CA:** FCS prepared an EIR for a 15-acre plan area which includes a new public library, housing, and athletic fields. The plan area is located entirely within the City of Pleasant Hill on land owned by Contra Costa County and the Mount Diablo Unified School District. The project also included necessary infrastructure improvements such as roadway widening, lane configuration improvements, and signal upgrades; new curb and gutter, sidewalks, and ADA facilities; and drainage, utilities (including a possible sewer line removal), lighting, and landscape improvements throughout the plan area. FCS worked with the property sponsors and stakeholders to clearly define the project. FCS also identified mitigation and prepared all regulatory permit applications, including a 404 permit from the USACE, Streambed Alteration Agreement with the CDFW, and 401 water quality certification from the RWQCB. Mr. Carroll prepared the Biological Impact Analysis for the EIR, jurisdictional delineation, and California red-legged frog (CRLF) (*Rana draytonii*) habitat assessment, with

appropriate levels of analysis for the both programmatic- and project-level components. Additionally, Mr. Carroll prepared the required regulatory permits from the USACE, RWQCB, and CDFW.

- **CarMax Project Biological Construction Monitoring and Memorandum, City of Pleasant Hill, CA:** Mr. Carroll confirmed the presence of one active red-shouldered hawk (*Buteo lineatus*) nest on the project site during construction activities. Subsequently, Mr. Carroll assisted in the determination of protection buffers and coordination with the project team regarding compliance with bird nests protection measures.
- **Terraces of Lafayette EIR Addendum, City of Lafayette, CA:** FCS prepared a comprehensive addendum to the Terraces of Lafayette EIR to update the air quality, biological resources, noise, and transportation sections of the initial EIR from 2013. The Terraces of Lafayette Project consists of 315 apartments allocated among 14 buildings, along with a club house, leasing office, and parking. Mr. Carroll prepared the Biological Resources Assessment (BRA).
- **Chang Property Development IS/MND, Technical Studies, Planning, and Local Agency Formation Commission (LAFCO) Application Services, City of San Ramon, CA:** FCS prepared LAFCO application materials, IS/MND, and associated technical studies (Air Quality and GHG Emissions Analysis, BRA, Cultural Resources Assessment [CRA], Noise Analysis, and Transportation Analysis) for a proposed 43-lot subdivision on a 195-acre project site in the City of San Ramon. Mr. Carroll prepared the BRA.
- **Blue Wave Car Wash Project IS/MND and Technical Studies, City of Pittsburg, CA:** FCS prepared the IS/MND and supporting technical studies for the Blue Wave Car Wash Project in the City of Pittsburg, California. Bluewave Express Car Wash and CEI Engineering (applicant) proposed to develop a new stand-alone carwash and self-service vacuum facility on a 1.36-acre site. The project would include 26 parking spaces and a 100-foot drive-thru vehicle wash tunnel; three 12.5-foot drive-thru pay lanes; three drive-thru payment stations; 22 vacuum stalls; and paved driveways. As an approved biologist under the East Contra Costa County Habitat Conservancy (Conservancy), Mr. Carroll prepared the Planning Survey Report Application in relation to compliance with the Conservancy.
- **Pittsburg Health Center Parking Lot Improvement Project, City of Pittsburg, CA:** As an approved biologist under the Conservancy, Mr. Carroll completed nesting bird surveys for this project. The survey was conducted in relation to an on-call general biological services contract with Contra Costa County in relation to compliance with the Conservancy.
- **Liberty Subdivision II Project Substantial Conformance Memorandum Services, City of Pittsburg, CA:** As an approved biologist under the Conservancy, Mr. Carroll prepared the Planning Survey Report Application in relation to compliance with the Conservancy. Additionally, Mr. Carroll contributed the Conformance Evaluation required under CEQA.
- **The Ranch Project Recirculated EIR, City of Antioch, CA:** FCS prepared an EIR for the redesigned Ranch Residential Project in the City of Antioch. The Ranch is a master planned residential community that would include up to 1,177 single-family residential dwellings, 5 acres of retail, and a future fire station. The project would include protection of approximately 242 acres for parks, open space, and trails. As the Project Biologist, Mr. Carroll peer reviewed multiple biological reports from external consulting firms for the project site and off-site areas, coordinated with the City and biologists at those firms on findings, and finalized the Biological Resources section of the EIR.
- **Willow Avenue Commercial Center Project IS/MND, City of Hercules, CA:** FCS prepared an IS/MND for the proposed Willow Avenue Commercial Center, which proposes to construct up to 156,627 square feet of self-storage and service commercial uses in the City of Hercules, California. The storage facility would include four buildings totaling 128,627 square feet and the service commercial uses would include

four buildings totaling 28,000 square feet. Mr. Carroll also provided construction monitoring and Workers Environmental Awareness Training and helped obtain all necessary biological permits.

- **Marina Way Residential Project Wetland Delineation, City of Richmond, CA:** FCS prepared a Wetland Delineation for the Marina Way Residential Project located south of the intersection of Marina Way South and Hall Avenue, near the southern terminus of Marina Way in the City of Richmond. Mr. Carroll prepared the Wetland Delineation.
- **Powerplant Agricultural Development Project Focused EIR and MND, City of Richmond, CA:** FCS prepared an IS/MND for the 11-acre project in the City of Richmond. The applicant proposed to develop 180,900 square feet of agricultural development in several phases for the purposes of marijuana cultivation. As the Staff Biologist, Mr. Carroll prepared the Biological Impact Analysis for the IS/MND, with appropriate levels of analysis for project-level components.
- **Cypress Self-storage Project Biological Assessment, City of Oakley, CA:** FCS prepared a biological assessment for the Cypress Self-storage Project, which proposes to construct a Self-storage Facility and leasing office with related sales and rental facilities. The storage facility would consist of two 3-story buildings totaling up to 139,408 square feet plus a 1,024-square-foot office building with five parking stalls. FCS's biologists conducted pre-construction surveys for Swainson's hawk, golden eagle (*Aquila chrysaetos*), western BUOW, and Townsend's big-eared bat (*Corynorhinus townsendii*), as well as species protected by the Migratory Bird Treaty Act (MBTA) (16 USC 707) and the California Fish and Game Code (FGC) (Section 3503). Mr. Carroll prepared the Planning Survey Report in compliance with the Conservancy.
- **Silvergate Apartment Development Project Biological Pre-construction Survey, City of Brentwood, CA:** As an approved biologist under the Conservancy, Mr. Carroll assisted in the preparation of the Planning Survey Report Application.

  John Muir Parkway Extension Project IS/MND and Preliminary Environmental Study for NEPA Clearance, City of Brentwood, CA: FCS prepared an IS/MND in 2007 to clear the relocation of Concord Avenue as John Muir Parkway extension. In 2010, FCS assisted the City of Brentwood by facilitating Contra Costa Transportation Authority's recognition of federal funding that was earmarked in the 2007 Omnibus Transportation Act for the relocation. Once funding was programmed in the regional Transportation Improvement Program, FCS prepared a Preliminary Environmental Study (PES) package through the Caltrans Office of Local Assistance to access the federal funding for the project. A second PES package was prepared and submitted in 2014, including a Natural Environment Study, Wetland Delineation, Cultural Resources Area of Potential Effect Map, Historical Property Survey Report, Archaeological Survey Report, Hazardous Materials Memorandum, and Categorical Exclusion Checklist and Form. Mr. Carroll assisted the City in obtaining necessary updates to biological permits, including CWA Sections 404 and 401 permits and an SAA. Mr. Carroll also provided construction monitoring and Workers Environmental Awareness Training.
- **Volpone-Silver Gate Condominium Community Project Burrowing Owl (BUOW) (*Athene cunicularia*) and Nesting Birds Pre-construction Survey, City of Brentwood, CA:** In accordance with the requirements of the Conservancy, Mr. Carroll assisted in a pre-construction survey for BUOW and nesting birds for the development of a 166-unit condominium community.
- **Alameda Federal Center Reuse NEPA Documentation, City of Alameda, CA:** FCS prepared a NEPA EA for the 3.65-acre property on McKay Avenue in Alameda. The proposed action included the reuse and renovation of four buildings for senior housing; the demolition and replacement of one building with a small

primary care clinic; and the demolition of six accessory structures, as well as reducing paved surfaces and creating new open space areas. Mr. Carroll authored the Biological Resources section of the EA.

- **William J. Payne Sports Park Renovation Project IS/MND, City of Livermore, CA:** FCS prepared an IS/MND for a 14-acre park located 5800 Patterson Pass Road in the City of Livermore, Alameda County, California. Mr. Carroll conducted the field work and authored the Biological Resources section of the IS/MND.
- **Spotorno Ranch Project Subsequent EIR, City of Pleasanton, CA:** FCS prepared an EIR, technical studies/analyses, and related documents for a 39-lot residential subdivision in the Happy Valley area of Pleasanton. Mr. Carroll prepared the Biological Impact Analysis for the EIR, with appropriate levels of analysis for project-level components.
- **Fairgrounds Channel Drainage Project Regulatory Permitting and Restoration, Solano County, CA:** Mr. Carroll prepared a BRA, and in coordination with subconsultants, prepared a Habitat Assessment in accordance with the Revised Guidance on Site Assessments and Field Surveys for the CRLF, rare plant surveys, and a compensatory mitigation plan for the Fairgrounds Channel Drainage Project. The project is currently seeking regulatory permits from the USACE, San Francico Bay RWQCB, and CDFW.
- **Library/Learning Resource Center Building Project Biological and Cultural Construction Monitoring Services, Solano Community College District, Fairfield, CA:** FCS prepared the IS/MND and provided the subsequent biological construction monitoring services for the construction of a new 59,252-gross-square-foot, 2-story Library/Learning Resources Center building on the Fairfield Campus of the Solano Community College. Mr. Carroll conducted multiple pre-construction surveys and wrote a subsequent memorandum for roosting bats for environmental compliance under CEQA.
- **Suisun Commerce and Logistics Center Project EIR, City of Suisun City, CA:** FCS expedited the preparation of an EIR with technical studies/analysis and related documents for the proposed development of light industrial, commercial, and open space uses on a 353-acre site that is currently used for grazing. Total buildout would consist of up to 3.9 million square feet. The project site is located in unincorporated Solano County, immediately adjacent to the Suisun city limits and is less than 1 mile from Travis Air Force Base. Mr. Carroll peer reviewed multiple supporting biological documents and authored the Biological Resources Section of the EIR.
- **Mariner's Cove Wetland Fill Project Biologist and Biological Monitoring Services, City of Vallejo, CA:** FCS provided biological monitoring services to the City of Vallejo's Public Works Department for the Mariner's Cove Wetland Fill Project. The goal was to fill former tidal marsh areas that are now cut off from natural tidal influence. However, the area supports pickleweed (*Salicornia pacifica*) habitat, which is potentially suitable for the federal and State endangered salt marsh harvest mouse (SMHM) (*Reithrodontomys raviventris*). For the vegetation removal process, FCS provided biological monitoring services, including review of permit documents, coordination with the contractor, coordination with CDFW, monitoring on-site during vegetation removal, and reporting according to permit conditions. This project required biological monitors to be approved in advance by the CDFW for this specific species and habitat. FCS acquired CDFW approval within one day and was able to provide a pool of five approved biological monitors. Mr. Carroll was a CDFW-approved Monitor for the project. Mr. Carroll prepared and conducted a Workers Environmental Awareness Program (WEAP) for construction personnel prior to the start of vegetation removal. He also distributed an SMHM factsheet handout to all personnel as required per the City's SAA. Additionally, Mr. Carroll surveyed and monitored for protected species for all work done within 300 feet of tidal or pickleweed habitats.

- **619–625 California Drive IS/MND Project, City of Burlingame, CA:** FCS prepared an IS/MND for a new 4-story, 26-unit live/work development with at-grade parking at 619–625 California Drive in the City of Burlingame, California, located in the C-2, North California Drive Commercial District and within the DTSP. Mr. Carroll performed the reconnaissance-level biological assessment and prepared the Biological Impact Analysis for the IS/MND.
- **Highway 1/North Main Street—Spindrift Way IS/MND and Technical Studies, City of Half Moon Bay, CA:** The segment of Highway 1 between North Main Street and Spindrift Way carries approximately 30,000 vehicles per day (based on Caltrans 2015 traffic counts) and is the most traveled portion of the Cabrillo Highway between Pacifica and Santa Cruz. Between North Main Street and Grand Boulevard, the roadway is a four-lane divided highway. Between Grand Boulevard and Spindrift Way, Highway 1 consists of a two-lane undivided roadway. A Class I bicycle/pedestrian trail exists along the west shoulder. In 2009, the City of Half Moon Bay adopted the Highway 1 Traffic Safety and Congestion Mitigation Plan to improve roadway and intersection operations along the Highway 1 corridor within Half Moon Bay. The improvements contemplated by the plan would be funded by the County's Measure A program. FCS prepared an IS/MND to evaluate the proposed safety improvements and visual enhancements along the Highway 1 corridor between North Main Street and Spindrift Way. Mr. Carroll assisted in the preparation of the BRA and Jurisdictional Delineation for the project.
- **Fire Station 77 Replacement IS/MND, Menlo Park Fire Protection District, City of Menlo Park, CA:** FCS prepared an IS/MND for a project that proposed to replace Fire Station 77 in the City of Menlo Park with a new 14,000-square-foot, 2-story fire station. To provide maximum planning flexibility to the Menlo Park Fire Protection District, the IS/MND evaluated three parking lot options along Terminal Avenue and an array of residential property acquisition options. FCS also prepared the Hazardous Material section, including recommendations for mitigation for the project. Preparation of this section of the IS/MND involved the review of various environmental databases for any current and/or historic records of releases to the environment. As the Project Biologist, Mr. Carroll conducted field work and assisted in a bat habitat assessment, which outlined methodology, findings, and necessary measures to avoid or otherwise minimize impacts to sensitive bat species.
- **Nueva School Hillsborough Pre-construction Nesting Migratory Bird and Bat Habitat Surveys, Town of Hillsborough, CA:** FCS conducted a focused nesting bird and bat habitat survey for the Nueva School Hillsborough Project. The project site consists of a school campus located in a largely urban and developed area that contains 162 existing trees with an abundance of trees in the surrounding vicinity. Mr. Carroll conducted a focused nesting bird and bat habitat survey for the project.
- **San Marin Business Park Expansion Regulatory Permitting Services, City of Novato, CA:** FCS provided peer review services for the jurisdictional delineation report on the 44.5-acre property in the City of Novato, California. In addition, FCS prepared applications for a CWA 404 permit and a CWA Section 401 Water Quality Certification. Mr. Carroll worked with the USACE and RWQCB to obtain regulatory permits.
- **Big Ranch Road Widening IS/MND, City of Napa, CA**: FCS prepared an IS/MND for the City of Napa Public Works Department's Big Ranch Road Project, which consisted of widening a 1,220-foot-long segment of Big Ranch Road between Trancas Street and the bridge over Salvador Creek to carry three lanes of vehicular traffic and a turning lane. Mr. Carroll prepared the Biological Impact Analysis for the IS/MND, with appropriate levels of analysis for project-level components.
- **Ritz-Carlton Napa Valley Resort Hotel Data Recovery of CA-NAP-928, City of Napa, CA:** FCS assisted the USACE with the data recovery of CA-NAP-928. FCS's Dana DePietro, PhD, RPA, as Principal

Investigator, implemented the Memorandum of Agreement and Historic Properties Treatment Plan for the Ritz-Carlton Napa Valley Resort Project, which was determined to have an adverse effect on the prehistoric site CA-NAP-928. Mr. Carroll managed and coordinated cultural resource monitoring efforts for more than 10 full-time cultural monitors. Mr. Carroll's duties included providing updated progress map; an overview of daily progress reports on burials, features, and unanticipated discoveries; onboarding new monitors; and invoicing.

- **Mount Madonna County Park Master Plan Environmental Constraints Analysis and IS/MND, Santa Clara County, CA:** FCS completed field surveys and prepared a biological and cultural resources constraints analysis to inform the location and design of master plan improvements to Mount Madonna County Park. As the Staff Biologist, Mr. Carroll prepared the biological constraints analysis for master plan improvements.
- **Conservation Center for Wildlife Care Project Environmental and Regulatory Permitting Services, Lawrence Ellison Foundation (LEF), Santa Clara County, CA:** FCS provided technical studies (cultural resources, biological resources, air quality, and noise) in support of the Lawrence Ellison Foundation (LEF) original application submittal in 2013, and reviewed provided comments on the County's 2014 EIR on behalf of LEF. Following the unanimous approval of the project, FCS provided biological, regulatory, project management, and entitlement processing services to support the proposed Conservation Center for Wildlife Care Project in Santa Clara County. LEF proposes to construct five buildings (Public Wildlife Intake Building/Pond Ecology Station, Wildlife Medical Facility and Education Building, Imperiled Species Breeding Facility, and two cottages) in the western portion of the project site and 50 wildlife enclosures scattered throughout the site. Mr. Carroll assisted in the compilation and submission of regulatory permits, provided a Worker's Environmental Awareness Training, and conducted multiple pre-construction surveys for nesting birds and roosting bats to ensure all biological mitigation measures were satisfied for CEQA compliance.
- **South Bascom Gateway Station Project IS/MND, City of San José, CA:** FCS prepared an IS/MND for the 6.4-acre mixed-use development project located at 1410 South Bascom Avenue Project in the City of San José. As the Project Biologist, Mr. Carroll provided biological services, including conducting fieldwork in support of the Initial Study and writing the Biological Resources section.
- **Cottle and Lester Historic Ranch Project IS/MND, City of San José, CA:** FCS led the preparation of an IS/MND and associated technical studies for the 256-acre Martial Cottle Park in south San José, California. The park was the subject of a Master Planning process by Santa Clara County Parks and Recreation that concluded in 2011. A 30.9-acre parcel known as the Life Estate is located adjacent to the Park to the southeast. The development of this parcel was not included in the 2011 EIR prepared for the Park Master Plan, although it was acknowledged that this site would eventually be added to the Park. FCS prepared an Air Quality and GHG Emissions Analysis, a BRA, a CRA, and a Noise Analysis. The project also included a Trip Generation Analysis prepared by our subconsultant. Mr. Carroll conducted the field work and assisted in writing the Biological Resources Assessment in support of the project IS/MND.
- **Masson Estates Residential Project EIR, City of Saratoga, CA:** FCS is preparing the EIR for the construction of 25 homes and related infrastructure. The proposed project is being processed pursuant to Senate Bill 330, the Housing Accountability Act, and the Builder's Remedy contained therein, and would construct 20 market-rate and five affordable, single-family homes. Mr. Carroll conducted the field work and assisted in writing the Biological Resources Assessment and Jurisdictional Delineation in support of the project EIR.

- **110 Dry Creek Regulatory Permitting Project, City of Healdsburg, CA:** FCS provided environmental planning, biological resources, and regulatory permitting services in support of the Healdsburg Suites Multi-use Project. FCS initially completed CEQA compliance work and prepared associated technical studies, including a BRA and jurisdictional delineation. CEQA compliance was achieved with the City of Healdsburg, and the entitlement process was successfully completed. Mr. Carroll helped author the BRA and IS/MND and obtain a Section 1602 SAA from CDFW. Additionally, Mr. Carroll was the Lead Monitor during construction for span bridge over Foss Creek and carried out annual botanical monitoring surveys required by the Section 1602 SAA.
- **Round Barn Village Project IS/MND, City of Santa Rosa, CA:** FCS prepared an IS/MND for the Round Barn Village Project in the City of Santa Rosa, California. The project consisted of a GPA and rezone for the future development of up to 270 residences. Mr. Carroll prepared the IS/MND, with appropriate levels of analysis for project-level components.
- **Silva Dairy Site Industrial Project BUOW Pre-construction Survey, City of Tracy, CA:** Mr. Carroll conducted pre-construction surveys for BUOW and other nesting birds for this project. The surveys were conducted for compliance with the San Joaquin County Multiple Species HCP.
- **Villages of Patterson Project BUOW Habitat Assessment, City of Patterson, CA:** Mr. Carroll conducted three surveys for BUOW and other nesting birds for this project. The surveys were conducted for compliance with the 2006 Villages of Patterson EIR.
- **Walnut Avenue Residential Project Indirect Source Review and Biological Surveys, City of Patterson, CA:** Mr. Carroll conducted required pre-construction surveys for BUOW and Swainson's hawk (*Buteo swainsoni*) protocol-level surveys for the proposed project.
- **Salado Creek Maintenance Project CDFW Regulatory Permit Application, City of Patterson, CA:** Mr. Carroll conducted a jurisdictional delineation and a BRA in support of obtaining a Section 1602 Lake and SAA for routine maintenance work in Salado Creek.
- **Turlock Project Warehouse Consistency Checklist and Technical Studies, City of Turlock, CA:** FCS prepared a Consistency Checklist and Technical Studies for an e-commerce facility in the City of Turlock, California. Seefried Industrial Properties (project applicant) proposed to develop the Project Hornet e-commerce facility and related improvements on approximately 72.90 acres located within the 2,611-acre Westside Industrial Specific Plan (WISP) area. The WISP EIR was certified on November 14, 2006. General Plan EIR and General Plan were subsequently adopted on September 25, 2012. FCS prepared the Consistency Checklist to evaluate whether the previous environmental analysis in the certified WISP EIR and General Plan EIR adequately addressed the potential environmental effects of the proposed project or if supplemental or subsequent environmental review is warranted pursuant to the requirements of CEQA. In support of the Consistency Checklist, FCS prepared analysis for air quality/GHG emissions, energy, biological resources, cultural resources, and noise. The Consistency Checklist was approved on July 13, 2020, and the project was completed constructed in 2021. Mr. Carroll conducted Swainson's hawk (*Buteo swainsoni*) protocol-level surveys, nesting detection surveys, and active bird nest status determination surveys, for a total of more than 100 survey hours. Over the course of the project, 16 active bird nests were detected and monitored. Mr. Carroll assisted in the determination of protection buffers and coordination with the project team regarding compliance with bird nests protection measures.
- **Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek) Caltrans NEPA/CEQA Documentation and Permitting, Calaveras County, CA:** FCS assisted Calaveras County with Caltrans NEPA/CEQA documentation and the completion of regulatory permit

applications for the replacement of three structurally deficient bridges and associated improvements to Dogtown Road. As a Staff Biologist for the project, Mr. Carroll assisted in preparing the required regulatory permit application packages for the three bridge replacements. These packages included a CWA Section 404 NWP, CWA Section 401 Water Quality Certification, and a Section 1602 SAA.

- **El Dorado Materials Recovery Facility (MRF) Remodeling Project IS/MND, El Dorado County, CA:** FCS prepared an IS/MND for proposed renovations at the El Dorado MRF located west of the City of Placerville, in unincorporated El Dorado County. Mr. Carroll authored the biological resources section of the MND and conducted the pre-construction nesting bird survey.
- **Travers Creek Bridge Replacement Caltrans NEPA/CEQA Documentation and Permitting, Fresno County, CA:** Mr. Carroll prepared the CEQA IS/MND and the NEPA Categorical Exclusion and coordinated permitting through the USACE, the RWQCB, and the CDFW for the replacement of a structurally deficient bridge.
- **Fresno Warehouse Project IS/MND, City of Fresno, CA:** FCS prepared an IS/MND and supporting technical studies for a 43.59-gross-acre warehouse project in the City of Fresno, California. The project includes the construction of a 184,000-square-foot delivery station building, which would include an approximately 161,300-square-foot warehouse, 22,000-square-foot office space, 17 dock-high doors, and 18 grade-level doors. Mr. Carroll conducted Swainson's hawk protocol-level surveys, nesting detection surveys, and active bird nest status determination surveys, for a total of more than 40 survey hours. Over the course of the project, one active bird nest was detected and monitored. Mr. Carroll assisted in the coordination with the project team regarding compliance with bird nests protection measures.
- **Veterans Boulevard Grade Separation Phase 1 and Phase 2 Pre-construction Surveys, City of Fresno, CA:** Mr. Carroll conducted two Pre-construction Surveys in accordance with the EIR and CEQA requirements to support Phase 1 and Phase 2 construction of the Veterans Boulevard Grade Separation Project in the City of Fresno.
- **Cotati Reverb Hotel and Amphitheater Project IS/MND and Technical Studies, City of Cotati, CA:** FCS prepared an IS/MND and associated technical studies for the Cotati Reverb Hotel and Amphitheater Project, which proposed to demolish an existing park-and-ride surface parking area and paved surfaces and construct a hotel and amphitheater near the US 101/SR 116 interchange in the City of Cotati, California. FCS also delineated potential jurisdictional wetlands on the project site in accordance with methodologies within the USACE Wetland Delineation Manual and Arid West Regional Supplement. Mr. Carroll prepared the Wetland Delineation and the IS/MND. Additionally, Mr. Carroll obtained regulatory permits from the USACE and RWQCB.
- **Biological, Archaeological, and Paleontological Monitoring and Reporting Services for the Los Angeles Regional Interoperable Communications System, Los Angeles County, CA:** FCS provided monitoring and reporting services during the construction of more than 150 Land Mobile Radio facilities at sites located primarily in Los Angeles County. As a Staff Biologist, Mr. Carroll performed on-site construction monitoring for the installation of antenna support structures. He ensured all application mitigation measures were followed and the project remained in compliance at all times. His monitoring duties included various plant and wildlife species with the potential to occur on the project site, such as California Condor (*Gymnogyps californianus*), other raptors and nesting birds, and native vegetation protection.

Other FCS Projects

- Foundry Foodhall Technical Studies, City of Walnut Creek, CA

- Quarry Residential Project Nesting Bird Survey, City of Richmond, CA
- Mission and Mattox Project Addendum, City of Hayward, CA
- Chick-fil-A BRA, City of Livermore, CA
- Chick-fil-A BRA Update, City of Livermore, CA
- 124 and 128 Brown Street Biological Resources Due Diligence Memorandum, Solano County, CA
- 384 Fairgrounds Drive Self-storage Project Wetlands Assessment, City of Vallejo, CA
- Topgolf Facility at Burlingame Golf Center BRA, City of Burlingame, CA
- 1509 El Camino Real Project Regulatory Permitting and Engineering Design, City of Burlingame, CA
- Senior Living Facility BRA and Phase I Environmental Site Assessment, City of Novato, CA
- Washington Street Sewer Trunk Line Biological Services, City of Calistoga, CA
- Devlin Road Construction and Demolition Debris Facility Initial Study/Addendum and Technical Studies, Napa County, CA
- Jackson Family Winery The Inn Project Wetland Assessment, City of Napa, CA
- General Plan Redesignation and Zoning Ordinance EIR Amendment, City of Napa, CA
- St. Helena Winery and Farmworker Housing Project Biological Study, City of St. Helena, CA
- Bremer Winery Biological Site Visit, Memorandum, and Hearing Attendance, City of St. Helena, CA
- 2755 El Camino Real Apartment Project Nesting Bird Survey and Avoidance, City of Palo Alto, CA
- Cherry Creek Village Apartments Technical Studies, City of Cloverdale, CA
- Todd Road Project IS/MND and Technical Studies, City of Santa Rosa, CA
- Revel Windsor Senior Housing Community IS/MND, Town of Windsor, CA
- Mill Creek Project Biological Resources Regulatory Permitting, Town of Windsor, CA
- Project Lefty Biological Clearance Survey Report, City of Bakersfield, CA
- 3443 E. Chevy Chase Drive Property Project Biological Resources Assistance, City of Glendale, CA
- 1005 West Hillcrest Boulevard Biological Services Update, City of Monrovia, CA
- Copart Palmdale Online Car Auction Facility IS/MND and Technical Studies, City of Palmdale, CA
- Lincoln Avenue Assemblage Mixed-use Project Due Diligence, City of Anaheim, CA
- Assisted Living and Memory Care Facility Project BRA, City of Rancho Cucamonga, CA
- Redlands Residential Project Biological and Cultural Due Diligence, City of Redlands, CA
- Menifee Bradley and Holland Road Residential Project IS/MND and Technical Studies, City of Menifee, CA
- Brodiaea Avenue and Quincy Street Residential Project Regulatory Permitting, City of Moreno Valley, CA
- Verizon Shannon Lane Project Biological Services, City of Murrieta, CA
- Walnut and Indian Avenue Warehouse Due Diligence Services, City of Perris, CA

Prior Work Experience

- **Orange County Coastkeepers, City of Costa Mesa, CA:** Mr. Carroll served as an Intern from January to September 2013. As an Intern, he contributed to the 2012 annual report for the Orange County Marine Protected Area Watch Program by analyzing data from the seven marine protected areas throughout

Orange County. The annual report aims to measure human usage in marine protected areas and its subsequent effect on these marine habitats. Mr. Carroll also contributed to various ongoing projects, such as the native oyster restoration project in Alamitos Bay, Newport Bay copper level monitoring, and scrap yard water quality monitoring.

- **ODFW, City of Corvallis, OR:** As an Experimental Biological Aide from October 2014 to June 2015, Mr. Carroll worked directly under the District Fish Biologist. He conducted ground surveys of adult salmonids, captured fish using different types of fishing gear, entered data from surveys, and created a database of scientific studies on the effects of hatchery-raised salmonids on wild population stocks. Mr. Carroll assisted in spawning techniques of male and female rainbow trout (*Oncorhynchus mykiss*) and recorded and maintained data on fish mortalities, water quality, and feed allotments.
- **Oregon State University, Langdon Lab, Hatfield Marine Science Center, City of Newport, OR:** Mr. Carroll was a Research Assistant at the Hatfield Marine Science Center from July to September 2015. As a Research Assistant, he conducted research on the phenotypic response of the Pacific oyster to ocean acidification and associated genetic selection pressures. He utilized R Studio to investigate the effects of ocean acidification on the growth and development rate in larval oysters.
- **US Peace Corps, Philippines:** Mr. Carroll was a Coastal Resource Management Extension Worker with the US Peace Corps in the Philippines from August 2010 to December 2012. As a Coastal Resource Management Extension Worker, Mr. Carroll wrote and managed two US Agency for International Development (USAID) grants and one Philippine grant totaling more than $8,000. One USAID grant funded the implementation of the first marine sanctuary, environmental education activities, and public awareness strategies related to marine ecosystem management in the Municipality of Buenavista, located in the island province of Guimaras. Another USAID grant funded two 3-day overnight environmental camps for 130 high school students with an emphasis on solid waste management and marine protected areas. The Philippine grant funded the development of a new municipal coastal resource management plan and the implementation of rural fishing community needs assessments. Additionally, Mr. Carroll conducted biophysical assessments in surrounding ecosystems and socioeconomic surveys in rural fishing communities for baseline data for a municipal-wide coastal resource management plan.

Appendix C Project Action Area Photographs



Photograph 1: Northwest corner of action area facing west, showing Fournier Road and long-term staging area.



Photograph 2: Northwest corner of action area facing south, showing Joe Howard Street and Mariposa Cemetery access road.



Photograph 3: Northwest corner of action area facing southwest, showing Mariposa Cemetery.



Photograph 4: Center of action area facing south, showing drainage, Fournier Road along the right, unnamed access road, and edge of Mariposa Cemetery.



Photograph 5: Center of action area past junction of Fournier Road and unnamed access road facing southwest, showing drainage, unnamed access road, and Fournier Road on the right.



Photograph 6: Southwest section of action area facing southwest, showing drainage with red willow tree and Himalayan blackberry patch, unnamed access road above on the left, and Fournier Road on the right.



Photograph 7: Southwest end of action area facing south, showing Mariposa Creek flowing over Fournier Road, red willow riparian woodland, and Antone Road and residential development in the back.



Photograph 8: Southwest end of action area facing south, showing Mariposa Creek flowing over Fournier Road.



Photograph 9: Southwest end of action area facing west, showing upstream portion of Mariposa Creek.



Photograph 10: Southwest end of action area facing east, showing downstream portion of Mariposa Creek.



Photograph 11: South corner of action area facing north, showing Mariposa Creek and red willow riparian woodland.



Photograph 12: South corner of action area facing west, showing Antone Road and Mariposa Creek.



Photograph 13: South corner of action area facing south, showing Antone Road, residential development, and woodland in the distance.



Photograph 14: Southwest corner of action area facing north, showing Mariposa Creek, red willow riparian woodland, and Fournier Road.



Photograph 15: Google Earth aerial imagery of action area on June 23, 2024.



Photograph 16: Google Earth aerial imagery of Mariposa Creek at Fournier Road on June 23, 2024.

Appendix D Species Compendium

Species Compendium

Scientific Name	Common Name	Status
WILDLIFE		
Birds		
Baeolophus inornatus	oak titmouse	native
Melanerpes formicivorus	acorn woodpecker	native
Pipilo maculatus	spotted towhee	native
PLANTS		
Ailanthus altissima	tree of heaven	Cal-IPC: M
Avena sp.	wild oat	Cal-IPC: M
Bromus diandrus	ripgut brome	Cal-IPC: M
Bromus hordeaceus	soft brome	Cal-IPC: L
Calocedrus decurrens	incense cedar	native
Ceanothus cuneatus	buck brush	native
Claytonia parviflora	streambank springbeauty	native
Claytonia perfoliata	miner's lettuce	native
Croton setiger	turkey-mullein	native
Cyperus eragrostis	tall flatsedge	native
Dactylis glomerata	orchard grass	Cal-IPC: L
Daucus pusillus	American wild carrot	native
Elymus caput-medusae	Medusa head	Cal-IPC: H
Erodium botrys	big heron bill	non-native
Eschscholzia sp.	poppy	native
Festuca perennis	Italian rye grass	Cal-IPC: M
Galium sp.	bedstraw	native
Geranium molle	crane's bill geranium	non-native
Grindelia camporum	Great Valley gumweed	native
Heteromeles arbutifolia	toyon	native
Hirschfeldia incana	short podded mustard	Cal-IPC: M
Holocarpha heermannii	Heermann's tarweed	native
Hypericum perforatum	common St. John’s wort	Cal-IPC: L
Marrubium vulgare	white horehound	Cal-IPC: L
Melilotus albus	white sweetclover	non-native

Scientific Name	Common Name	Status
Nemophila heterophylla	canyon nemophila	native
Pentagramma triangularis	gold back fern	native
Phoradendron leucarpum	American mistletoe	native
Pinus sabiniana	gray pine	native
Plantago lanceolata	English plantain	Cal-IPC: L
Polypogon monspeliensis	rabbitsfoot grass	Cal-IPC: L
Quercus douglasii	blue oak	native
Quercus wislizeni	interior live oak	native
Rubus armeniacus	Himalayan blackberry	Cal-IPC: H
Rubus ursinus	Pacific blackberry	native
Rumex conglomeratus	clustered dock	non-native
Rumex crispus	curly dock	Cal-IPC: L
Salix laevigata	red willow	native
Sanicula crassicaulis	Pacific sanicle	native
Silybum marianum	milk thistle	Cal-IPC: L
Stipa miliacea	smilo grass	non-native
Torilis arvensis	field hedge parsley	Cal-IPC: M
Typha latifolia	broadleaf cattail	native
Verbascum thapsus	woolly mullein	Cal-IPC: L
Veronica persica	bird's eye speedwell	non-native
Vicia villosa	hairy vetch	non-native
Vinca major	greater periwinkle	Cal-IPC: M
Xanthium strumarium	rough cockleburr	native

Fournier Road Improvement Project



Natural Environment Study

Mariposa County, California

Mariposa, California USGS 7.5-Minute Quadrangle

Township 5 South, Range 18 East

Caltrans, District 10

February 2026

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Fournier Road Improvement Project

Natural Environment Study

Mariposa County, California

Mariposa, California USGS 7.5-Minute Quadrangle

Township 5 South, Range 18 East

Caltrans, District 10

February 2026

STATE OF CALIFORNIA
Department of Transportation

Prepared By: _____ Date: February 13, 2026

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Acronyms List

AMSL	Above Mean Sea Level
BA	Biological Assessment
BIOS 6	Biogeographic Information and Observation System
BMP	Best Management Practices
BSA	Biological Study Area
Cal-IPC	California Invasive Plant Council
Calflora	The Calflora Database
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPS Inventory	CNPS Inventory of Rare Plants
CWA	Clean Water Act
EFH	Essential Fish Habitat
EPA	United States Environmental Protection Agency
FCS	FirstCarbon Solutions
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Code
FIRM	Flood Insurance Rate Map

FYLF	foothill yellow-legged frog
GPS	Global Positioning System
IPaC	Information for Planning and Consultation
ITP	Incidental Take Permit
JD	Aquatic Resources Jurisdictional Delineation
LTCAP	Local Transportation Climate Adaptation Program
MBTA	Migratory Bird Treaty Act
NES	Natural Environment Study
NLAA	Not Likely to Adversely Affect
NOAA Fisheries	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act of 1977
NPT	northwestern pond turtle
OHWM	ordinary high water mark
PB	pallid bat
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
RSA	Resource Study Area
RWQCB	Regional Water Quality Control Board
SR	State Route
State Water Board	California State Water Resources Control Board
TBEB	Townsend's big-eared bat
SWPPP	Storm Water Pollution Prevention Plan
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Summary

Project Purpose and Need

The purpose of the proposed widening and associated improvements on Fournier Road is to provide a more resilient route for residents to reach California State Route (SR) 49 during climate events. The proposed bridge would be designed so the water surface elevation upstream and downstream of the bridge would be equal to or lower than the water surface elevation shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs). The proposed improvements would address roadway overtopping during storm events and improve evacuation conditions for occupants of several nearby housing developments and the Hyatt Hotel, providing increased access to SR-49. The proposed project is predominantly funded by the California Department of Transportation Caltrans for the Local Transportation Climate Adaptation Program (LTCAP). Caltrans is the Lead Agency.

Results

Habitats

The proposed project would impact 0.62 acre of developed land, 0.01 acre of dirt access road, 0.38 acre of interior live oak-gray pine woodland, 0.17 acre of red willow riparian woodland, 0.26 acre of wild oat-annual brome grassland, 0.03 acre of Mariposa Creek, 0.01 acre of ephemeral drainage, and 0.0023 acre of underground culvert segment. Mariposa Creek may provide habitat for aquatic or semi-aquatic species during high flow season. Mature trees located in the red willow riparian woodland and the interior live oak-gray pine woodland may seasonally provide suitable roosting habitat for birds or nesting habitat for protected nesting bird species.

Wetlands and Other Waters

The proposed project would impact Mariposa Creek, a roadside ephemeral drainage, and culvert segments. A preliminary Aquatic Resources Jurisdictional Delineation (JD) was conducted for the site that determined the Biological Study Area (BSA) includes a total length of 295 linear feet, 3,186 square feet (0.07 acre) of potential waters of the United States and 1,027 linear feet, 3,873 square feet (0.08 acre) of potential waters of the State. The proposed project would impact all of the potential waters that were identified within the JD. Impacts to these features would likely require a Section 404 Clean Water Act (CWA) Pre-Construction Notification from the USACE and a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). Additionally, any impacts on drainage channels and associated riparian vegetation are expected to be regulated by the California Department of Fish and Wildlife (CDFW) pursuant to the Streambed Alteration Program, California Fish and Game Code Section 1602, *et seq*. The report did not find any evidence of wetlands in the BSA.

Special-status Plant Species

No special-status plants were found within the project impact area and there are no proposed or designated critical habitats located within the project impact area. Because of the high usage of Fournier Road throughout the BSA, there is a

proliferation of non-native and invasive species within Mariposa Creek and the surrounding drainage areas. For this reason, the project impact area would likely not provide suitable habitat for any special-status plant species. Therefore, the proposed project is not expected to adversely affect any special-status plant species.

Special-status Wildlife Species

No special-status animal species were found within the project impact area or the greater project site, and there is no proposed or designated critical habitat located in the project impact area. The project impact area contains potentially suitable habitat for four special-status wildlife species and one special-status group: foothill yellow-legged frog (FYLF; *Rana boylii*), pallid bat (PB; *Antrozous pallidus*), Townsend's big-eared bat (TBEB; *Corynorhinus townsendii*), northwestern pond turtle (NPT; *Actinemys marmorata*), and nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Implementation of avoidance and minimization measures will ensure the proposed project does not adversely affect special-status wildlife species.

Invasive Species

There were many regionally common invasive plant species observed within the project impact area. The proposed project is unlikely to increase the presence. The majority of the work will be conducted in the riparian woodland, which currently contains a mix of native, non-native, and invasive species. Implementation of avoidance and minimization measures will ensure the proposed project does not increase invasive species in the project impact area.

Permit Requirements

Mariposa County (County) would obtain and implement the conditions of the following permits, as

required.

- Nationwide Permit 14 (Linear Transportation Projects) from the United States Army Corps of Engineers (USACE) Corps under CWA, Section 404
- Water quality certification from the (RWQCB) under the CWA, Section 401
- Streambed Alteration Agreement from the CDFW under California Fish and Game Codes, Section 1602
- Letter of Concurrence from the United States Fish and Wildlife Service (USFWS) under the federal Endangered Species Act Section 7

Avoidance and Minimization Measures

The following avoidance and minimization measures would be implemented as part of the proposed project, as detailed in Chapter 4.

Avoidance and Minimization Measure 1: Implement Water Quality Best Management Practices

Avoidance and Minimization Measure 2: Coordination with regulatory agencies and compensation for permanent loss of regulated jurisdictional features

Avoidance and Minimization Measure 3: Seasonal Work Restriction

Avoidance and Minimization Measure 4: Worker Environmental Awareness Program for Foothill Yellow-legged Frog

Avoidance and Minimization Measure 5: Pre-Construction Survey for Foothill Yellow-legged Frog

Avoidance and Minimization Measure 6: Exclusion Fencing

Avoidance and Minimization Measure 7: Minimize Vegetation Removal

Avoidance and Minimization Measure 8: Monitor during Dewatering Activities

Avoidance and Minimization Measure 9: Provide Escape Ramps or Cover Open Trenches

Avoidance and Minimization Measure 10: Revegetation

Avoidance and Minimization Measure 11: Avoidance of Maternity Season

Avoidance and Minimization Measure 12: Worker Environmental Awareness Program for Roosting Bats

Avoidance and Minimization Measure 13: Pre-Construction Surveys for Bats and Roosts

Avoidance and Minimization Measure 14: Worker Environmental Awareness Program for Townsend's Big-eared Bat

Avoidance and Minimization Measure 15: Worker Environmental Awareness Program for Northwestern Pond Turtle

Avoidance and Minimization Measure 16: Pre-construction Survey for Northwestern Pond Turtle

Avoidance and Minimization Measure 17: Avoidance of Nesting Season

Avoidance and Minimization Measure 18: Pre-Construction Surveys for Active Nests

Avoidance and Minimization Measure 19: Buffer Zone for Active Nests

Chapter 1–Introduction

Project History

Project Purpose and Need

The purpose of the proposed widening and associated improvements on Fournier Road is to provide a more resilient route for residents to reach SR- 49 during climate events. The proposed bridge would be designed so the water surface elevation upstream and downstream of the bridge would be equal to or lower than the water surface elevation shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The proposed improvements would address the roadway overtopping during storm events and improve evacuation conditions for occupants of several nearby housing developments and the Hyatt Hotel, providing increased access to SR-49. The proposed project is predominantly funded by Caltrans for the LTCAP. Caltrans is the Lead Agency.

Fournier Road currently has a low-water crossing over Mariposa Creek. The existing channel is not sloped properly, resulting in sediment getting trapped and restricting the flow, and the existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events. As a result, vegetation and sediment accumulation within the channel has significantly restricted flow capacity. This results in water overtopping the existing bridge. The proposed project would convert the low-water crossing into a bridge, which would prevent overtopping during storm events.

Additionally, there are several projects near Fournier Road that would benefit from road widening. The County recently built housing near the southern boundary of the project site and has additional plans for future low-income and mixed-income housing developments nearby. Additionally, a new hotel is being constructed north of Fournier Road and just east of the Joe Howard Street intersection with SR-49. These housing developments and the new hotel would utilize SR-49 during an evacuation event. Furthermore, Fournier Road is within the area of planned improvements for the Mariposa Creek Parkway, which includes 4 miles of trails.

Project Location

The proposed project is located in Mariposa County, within the *Mariposa, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map (Figure 1 and Figure 2). The proposed project is located within Township 5 South, Range 18 East. The coordinates for the approximate center point of the project site are 37.4920519, -119.9763237. The proposed project is located along Fournier Road, beginning approximately 200 feet south of Antone Road and extending northeast to Joe Howard Street. Fournier Road is a two-way, 15-foot-wide roadway located in the southwest portion of the unincorporated community of Mariposa. Fournier Road consists of two lanes and is mostly unstriped except for a 100-foot section of striping near its intersection with Joe Howard Street. Fournier Road intersects Joe Howard Street approximately 75 feet south of SR-49. Fournier Road crosses over Mariposa Creek at a low-water crossing near the southern portion of the project site. The existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events.

Project Description

The County of Mariposa is proposing road widening and associated improvements along the 0.23-mile length of Fournier Road. The BSA is 1.93 acres, including 0.47 acre of ground disturbance and 1.01 acres of street improvements (Exhibit 3). Proposed improvements along Fournier Road would span the entire length of the roadway and would include widening the roadway to two 12-foot travel lanes; completion of new pavements and striping; construction of a sidewalk, curb and gutter, detention basin, and bridge; and the addition of on-street parking adjacent to the cemetery. The proposed project would also include grading, right-of-way dedication, and relocation of utilities. Other improvements would include new pavement and striping at the intersection with Antone Road and realignment of the cemetery driveway. A total of 36 trees would be removed.

To accommodate roadway widening and the construction of a sidewalk along the southeast side of Fournier Road, fill-slope conform grading would be required throughout most of the project length. The roadway widening would require additional right-of-way dedication from the cemetery. The proposed detention basin would accommodate increased runoff from new impervious surfaces created by the roadway widening. Additionally, the proposed project would add new on-street parking adjacent to the cemetery.

Cemetery Driveway

The cemetery driveway would be realigned to address safety concerns near its intersection with Fournier Road. The driveway would be widened to accommodate two 15-foot travel lanes and would be realigned to intersect Joe Howard Street south of Fournier Road.

Bridge and Channel Design

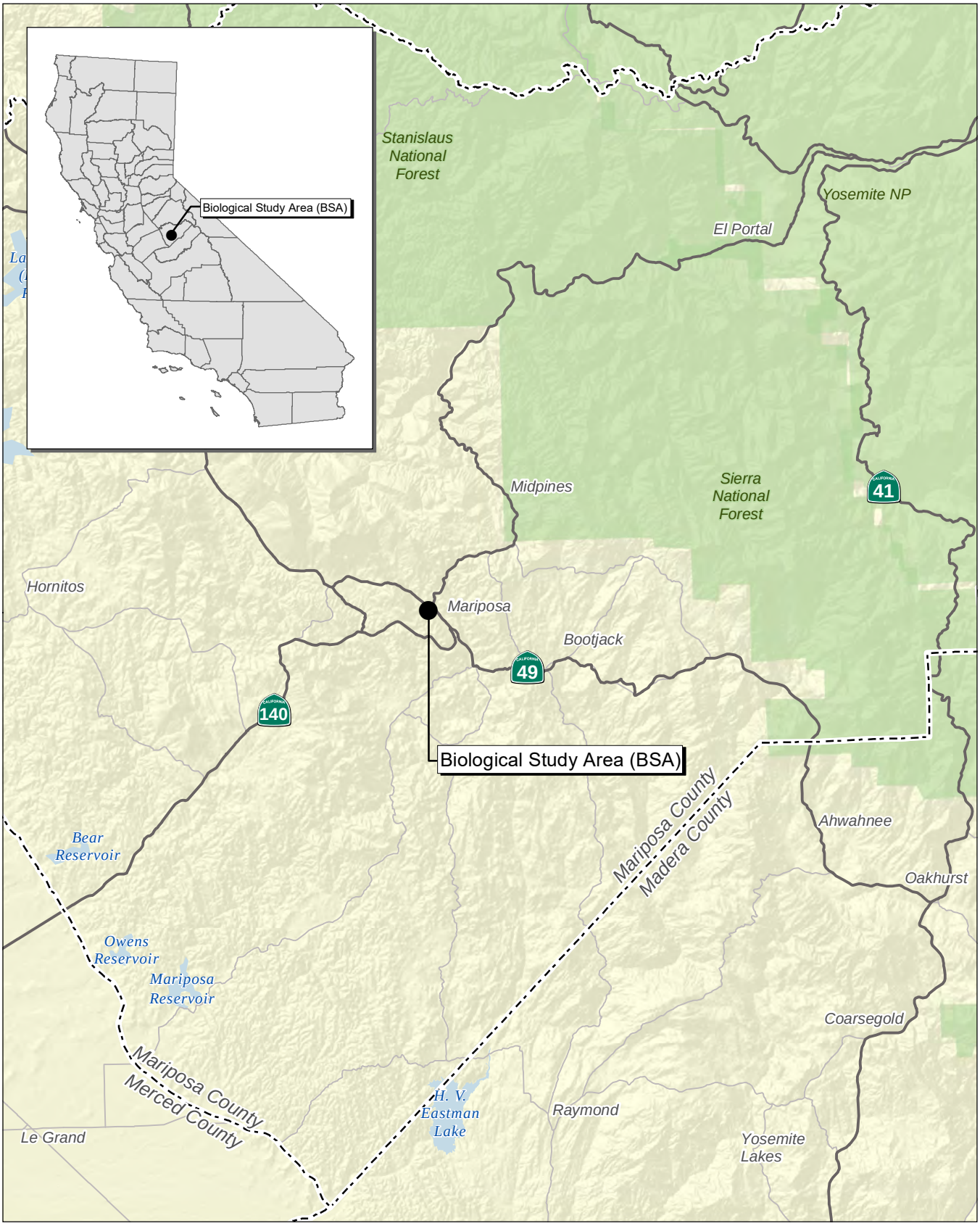
The proposed bridge would be a single span cast-in-place prestressed voided slab supported on spread footing foundation. A preliminary bridge layout was developed based on the initial roadway geometrics and a required clear span of 50 feet, resulting in a proposed bridge length of approximately 58 feet.

The abutments are located near the top of the channel banks to minimize impacts to the waterway. The proposed bridge would be designed so the water surface elevation upstream and downstream of the bridge would be equal to or lower than the water surface elevation shown on the FEMA FIRM. The bridge would have an overall width of approximately 37 feet 8 inches, designed to accommodate two 12-foot travel lanes, two 2-foot shoulders, and a 5-foot 8-inch sidewalk along the east side and barriers.

The proposed project would regrade the channel to a 1 percent slope, extending 60 feet upstream and 40 feet downstream of the bridge, which will increase the flow capacity. The maximum depth of grading would be approximately 8 feet on the upstream side and 4 feet on the downstream side. The width of the channel would remain approximately 80 feet. The proposed project would be required to submit a preliminary grading plan indicating the location, height, and grade of all cut and fill banks necessary for the proposed project, consistent with Mariposa County Code Section 17.66.

Construction and Utilities

During construction, Fournier Road would be closed to through traffic. A detour route would be provided, directing vehicles to use Antone Road and Joe Howard Street. The proposed project would require the relocation of public utilities including water, sewer, storm drain, fiber optic, and electrical facilities.



Source: Census Data, The California Spatial Information Library (CaSIL).

5 2.5 0 5
Miles

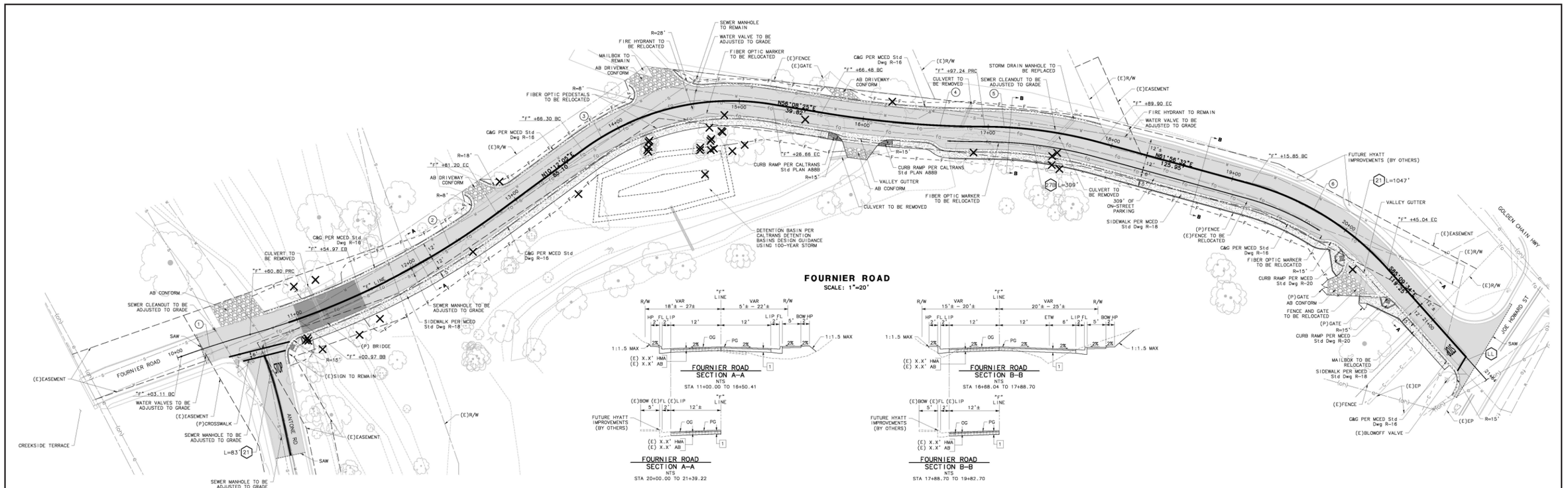
Figure 1
Project Vicinity Map



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

1,000 500 0 1,000 Feet

Figure 2
Project Location Map



LEGEND

C	CUT
F	FILL
	CURB & GUTTER
R/W	R/W
	EASEMENT
	SAWCUT
W	MPUD WATER LINE
S	MPUD SEWER LINE
fo	SIERRA TELEPHONE FIBER OPTIC LINE
e (oh)	PGE OVERHEAD ELEC LINE
	BC/EC/PCC/PRC
	REMOVE TREE/LANDSCAPING
	PROPOSED PAVEMENT
	PROPOSED AGGREGATE BASE
	PROPOSED BRIDGE DECK
	PROPOSED CONCRETE
STOP	INSTALL "STOP" LETTERS
No.	DENOTES PROPOSED DETAIL NUMBER PER CALTRANS Std PLANS
	CHANGE IN TRAFFIC STRIPE

DESIGN CHART

DESIGN ELEMENT	DESIGN VALUE HELD	MEETS AASHTO	MEETS HDM
LANE TAPERS	25 MPH	X	X
VERTICAL PROFILE	25 MPH	X	X
STOPPING SIGHT DISTANCE	25 MPH, 150 FT	X	X

ALIGNMENT CURVE TABLE

CURVE	RADIUS	DELTA	TANGENT	LENGTH
1	800.00'	4°07'54"	28.86'	57.69'
2	610.00'	20°42'06"	111.42'	220.40'
3	200.00'	45°56'20"	84.77'	160.36'
4	800.00'	9°21'56"	65.53'	130.77'
5	350.00'	15°10'03"	46.60'	92.65'
6	225.00'	32°53'54"	66.43'	129.19'
7	35.00'	64°29'47"	22.08'	39.40'

ABBREVIATIONS

AB	AGGREGATE BASE	MCED	MARIPOSA COUNTY ENGINEERING DEPARTMENT
AC	ASPHALT CONCRETE	MPUD	MARIPOSA PUBLIC UTILITY DISTRICT
AP	ANGLE POINT	NTS	NOT TO SCALE
BB	BEGIN BRIDGE	OH	OVERHEAD
BC	BEGIN CURVE	(P)	PROPOSED
BOW	BACK OF WALK	PCC	POINT OF COMPOUND CURVE
C&G	CURB AND GUTTER	PGE	PACIFIC GAS & ELECTRIC
COMM	COMMUNICATION	PL	PROPERTY LINE
Dwg	DRAWING	PRC	POINT OF REVERSE CURVE
EASE	EASEMENT	R/W	RIGHT OF WAY
EB	END BRIDGE	SAW	SAWCUT
EC	END CURVE	SHLD	SHOULDER
ELEC	ELECTRICAL	ST	STREET
EP	EDGE OF PAVEMENT	Std	STANDARD
ETW	EDGE OF TRAVEL WAY	TBD	TO BE DETERMINED
(E)	EXISTING	Trans	TRANSITION
HP	HINGE POINT	VAR	VARIES

CONSTRUCTION NOTES

1 PROPOSED PAVEMENT
SECTION 0.2' HMA/0.5' AB

Source: Mark Thomas, 04/30/2025.

Figure 3
Project Site Plan

Chapter 2–Study Methods

This section summarizes the federal and State regulations that protect sensitive biological resources. This section also discusses relevant Mariposa County General Plan goals, ordinances, and policies relating to the protection and preservation of biological resources.

Regulatory Requirements

This section summarizes the federal and State regulations that protect sensitive biological resources. This section also discusses relevant Mariposa County General Plan goals, ordinances, and policies relating to the protection and preservation of biological resources.

Special-status Species Protection

Federal Endangered Species Act

The USFWS has jurisdiction over species listed as threatened or endangered under the federal Endangered Species Act of 1973. Section 9 of Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

Migratory Bird Treaty Act

The MBTA implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 USC § 703, *et seq*.).

Bald Eagle and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalusare*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State-listed endangered and threatened species. CESA requires lead agencies to consult with the CDFW when preparing California Environmental Quality Act (CEQA) documents to ensure that the lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or

actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the take of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA. Fish and Game Code Section 2081 establishes an incidental take permit program for State-listed species. The CDFW maintains a list of "candidate species" which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from take prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the project.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of Species of Special Concern that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the CDFW California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or

Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1 and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project study area and determine whether the project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit (ITP).

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” “River, stream, or lake” includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water. CDFW jurisdiction typically extends to the edge or “drip line” of the riparian habitat or top of bank.

Wetlands and Waters of the United States and State Regulations

Clean Water Act

A draft rule regarding Section 404 was proposed on November 20, 2025, to revise the definition of “waters of the United States” to be consistent with the U.S. Supreme Court’s May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency* (USACE and EPA 2025). In light of this decision, the agencies will interpret the phrase “waters of the United States” consistent with the Supreme Court’s decision in the *Sackett* case. In *Sackett*, the Supreme Court adopted the *Rapanos* plurality’s test for adjacent wetlands: only those wetlands with a continuous surface connection to other regulated waters, such that the two are indistinguishable.

The USACE administers Section 404 of the federal CWA, which regulates the discharge of dredge and fill material into waters of the United States. The term “waters of the United States” is defined in USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. Waters which are:

    a. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

    b. The territorial seas; or

    c. Interstate waters;

2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

3. Tributaries of waters identified in paragraphs (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

4. Wetlands adjacent to the following waters:

    a. Waters identified in paragraph (a)(1) of this section; or

    b. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

5. Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

The following are not “waters of the United States”:

1. Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA;

3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;

5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

"Wetland" refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401 of the CWA states that "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB.

Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)). In 2019, the California State Water Resources Control Board (State Water Board) published the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) to guide wetland/waters of the State determinations and the permitting process (California State Water Resources Control Board 2020).

Invasive Species Regulations

Executive Order 13112 – Invasive Species

On February 3, 1999, Executive Order 13112 was signed requiring federal agencies to combat the introduction or spread of invasive species. This Executive Order was then amended to Executive Order 13751 as of December 2016. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health."

Under the Executive Order, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

Local Plans, Policies, and Ordinances

Mariposa County General Plan

The Mariposa County General Plan contains several policies related to the protection of sensitive species and habitat that are applicable to the proposed project (Mariposa County 2025).

Goal 11-1 Conserve the natural and scenic resources, and open space lands to protect and enhance the County's quality of life and character ensuring a viable economy.

Policy 11-1a Conserve natural and scenic resources through County programs and development standards.

IM 11-1a(1) The County shall establish guidelines to ensure development complementary to the scenic aspects of the County's rural character.

IM 11-1a(2) The County shall develop subdivision design standards for placement of structures on ridgelines and open hillsides.

IM 11-1a(3) Develop flexible site development and clustering to conserve designated scenic routes, views, and viewsheds.

IM 11-1a(4) The County shall develop guidelines for non-single family development within County highway corridors to preserve scenic resources. The guidelines will be developed into a scenic views plan for the preservation of visual quality along the County's highways. The plan will identify resources, views, and programs, while protecting the rights of property owners.

Policy 11-1b Collaborate with other public and private agencies for conservation management plans and programs.

IM 11-1b(1) The County should participate in conservation management planning with Federal and State and other public and private agencies.

Goal 11-2 Protect and manage the use of Mariposa County's limited water resources.

Policy 11-2a Conserve water to accommodate County growth and sustainable agriculture.

IM 11-2a(1) Implement standards for water conservation that are consistent with State guidelines, including requirements for the installation and use of low-flow plumbing fixtures in all new construction, and for the use of drip irrigation systems and drought-tolerant or low water using landscaping (including retention of existing native plant material) in all multi-family, commercial, resort, industrial and public developments.

IM 11-2a(2) Cooperate with the Mariposa Public Utility District and other wastewater generators in implementing programs for reuse of treated wastewater.

IM 11-2a(3) Cooperate with the domestic water system operators and public water purveyors in implementing programs to eliminate water loss due to leakage in pipes, ditches or other conveyance facilities.

Policy 11-2b Preserve surface and subsurface water quality.

IM 11-2b(1) Review development designs to ensure compliance with Federal and State water quality regulations and to ensure that the project does not discharge contaminated water.

Policy 11-2c Preserve the existing or potential sources of a sustainable water supply.

IM 11-2c(1) Outside Town Planning Areas and Rural Centers, maintain low intensities of development in order to protect the capacity of watersheds.

IM 11-2c(2) Designate watershed areas of surface water systems where such systems and their proposed watershed areas serve or are capable of serving as a potable water source.

Policy 11-2d Conserve water sources for water-dependent species and the continuity of riparian communities.

IM 11-2d(1) Implement requirements for minimum building and grading setback lines from waters of the State (i.e., perennial streams and environmentally significant wetlands), that are adequate to protect stream, riparian, and wetland resource values.

IM 11-2d(2) Provide for clustering of development that protects and avoids impacts to significant water resources.

Goal 11-4 Conserve and enhance the ecosystems, plant communities, wildlife habitats, and the inherent diversity of both plant and animal species for the recreational, commercial, aesthetic, and basic ecosystems needs.

Policy 11-4a Conserve the diversity of native ecosystems, plant communities, wildlife habitat, and plant and animal species in the County.

IM 11-4a(1) The County will implement a Mariposa County Environmental Conservation Program. The Program shall include development standards and programs conserving, protecting, and mitigating the impacts on:

- significant and sensitive habitat including wildlife migration corridors;
- breeding and nesting areas (as seasonally appropriate);
- known occurrences of special-status animal species;
- riparian habitat around bodies of water and along watercourses and seasonal drainages;
- known occurrences of special-status plant species, and
- significant and sensitive plant communities

IM 11-4a(2) Site development and grading review should minimize the removal of native trees and groves of trees.

IM 11-4a(3) The County shall develop and enforce standards that reduce or eradicate invasive species affecting the agricultural and natural ecosystems.

IM 11-4a(4) The County shall publish landscaping guidelines for the use of site-appropriate native plant species.

IM 11-4a(5) The County shall utilize collaborative planning efforts to coordinate local efforts to eradicate invasive plant species.

IM 11-4a(6) The County shall require site surveys in compliance with Federal and State regulations as part of environmental review to determine:

- The presence or absence of endangered species and their habitat;
- The presence or absence of threatened or rare wildlife and plant species and their habitat;
- The presence or absence of breeding raptors and migratory birds;
- The presence or absence of sensitive native plant communities;
- The presence or absence of native wildlife migration or travel corridors; and
- The presence or absence of jurisdictional wetland or other waters of the U.S.

IM 11-4a(7) The County shall record the data collected from the required site surveys to create a comprehensive map of environmental resources in Mariposa County. The map shall include but not be limited to vegetation communities with associated habitats for sensitive wildlife species.

IM 11-4a(8) During project review and environmental analysis, the County shall comply with Federal and State regulations to require measures that:

- Protect endangered species and their habitat;
- Protect threatened or rare wildlife and plant species and their habitats;
- Protect breeding raptors and migratory birds;
- Protect and avoid, to the extent feasible, sensitive native plant communities;
- Protect and avoid, to the extent feasible, native wildlife migration or travel corridors; and
- Protect and avoid, to the extent feasible, jurisdictional wetland or other waters of the U.S.

Mariposa County Voluntary Oak Woodland Management Plan and Landowner Guidelines Resolution

The Mariposa County Voluntary Oak Woodland Management Plan and Landowner Guidelines Resolution was passed in Mariposa County in 1995 (Mariposa County 1995). Though not legally enforceable, the plan specifies that an effort will be made to retain oak woodlands of Mariposa County (Mariposa County 2003). Oaks of all sizes and species are recommended to be protected except in the case where there is a fire or safety hazard.

Studies Required

Prior to conducting the field survey, FirstCarbon Solutions (FCS) compiled a list of threatened, endangered, and otherwise special-status species and sensitive natural communities previously recorded within the BSA and vicinity. This list was based upon the following literature searches:

- An official list of federally listed and candidate species that may occur within the BSA vicinity and/or may be affected by the proposed project from the USFWS Environmental Conservation Online System: Information for Planning and Conservation (IPaC), which was generated for the proposed project on January 10, 2025, and updated on January 26, 2026 (Appendix A, IPaC Database Query; USFWS 2026)

- A records search of the CDFW CNDDB for species that have previously recoded occurrences within the *Mariposa, California* USGS 7.5-minute Quadrangle Map and the surrounding eight quadrangles, which was generated for the proposed project on January 10, 2025, and updated on January 26, 2026 (Appendix B, CNDDB Database Query; CDFW 2026)

- A records search of the CNPS Inventory of Rare Plants (CNPS Inventory) for species that may occur within the *Mariposa, California* USGS 7.5-minute Quadrangle Map and the surrounding eight quadrangles, which was generated for the proposed project on January 10, 2025, and updated on January 26, 2026 (Appendix C, CNPS Database Query; CNPS 2026)

The BSA is located outside of the National Marine Fisheries Service (NOAA Fisheries), and therefore an NOAA Fisheries Species List is not included within this report.

Following the literature review, FCS Biologists conducted a reconnaissance-level field survey and a JD of the BSA on February 3, 2025, to map and classify the vegetation communities and land cover types present on the BSA and to determine the potential of the BSA to support special-status species.

Biological Study Area

The BSA includes all areas expected that could potentially be affected by the proposed project. Within the boundaries of the BSA, FCS Biologists conducted a habitat assessment, which included vegetation mapping to determine whether sensitive habitats that could support special-status species are present. In addition, a JD was completed within the BSA.

Survey Methods

General Biological Survey

FCS Biologists walked the BSA and noted the Global Positioning System (GPS) locations of potential biological resources using the ArcGIS Field Maps mobile application. The objective of the survey was not to extensively search for every species occurring within the BSA but to ascertain general site conditions and identify whether existing vegetation communities provide suitable habitat for special-status plant or wildlife species. Special-status and other biological resources identified during the literature review were ground-truthed during the field survey for mapping accuracy. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species. A Biological Assessment (BA) was created for the proposed project.

Aquatic Resources Jurisdictional Delineation

A JD was conducted to determine the location of any existing aquatic features and limits of project-related grading activities to aid in recommending the limits of jurisdiction of waters of the State, waters of the United States, and CDFW riparian habitat.

Personnel and Survey Dates

FCS Senior Biologist Robert Carroll and FCS Biologist Juliet Simpson conducted a reconnaissance-level field survey and JD of the BSA on February 3, 2025. Resumes for Mr. Carroll and Ms. Simpson are included in Appendix D.

Agency Coordination and Professional Contacts

United States Fish and Wildlife Service

To date, there has been no communication with USFWS regarding the proposed project.

California Department of Fish and Wildlife

To date, there has been no communication with CDFW regarding the proposed project.

Limitations That May Influence Results

Mariposa Creek was flowing at high volume at the time of the survey, flooding over Fournier Road and preventing views of the existing culvert. Culvert locations were provided in lieu of being recorded in the field by FCS Biologists. No additional limitations existed that influenced survey results and the methodology outlined in Section 2 is consistent with the standards for the preparation of an NES.

Chapter 3–Results: Environmental Setting

This section provides a description of existing physical and biological conditions within the BSA. During field survey, representative photographs were taken of the BSA; the photographs are provided in Appendix E.

Description of the Existing Physical and Biological Conditions

The physical conditions of the BSA and the vegetation communities and land cover types identified within the BSA are shown in Figures 4 through 6 and Table 1 and described in the Biological Conditions Section below.

Land Use

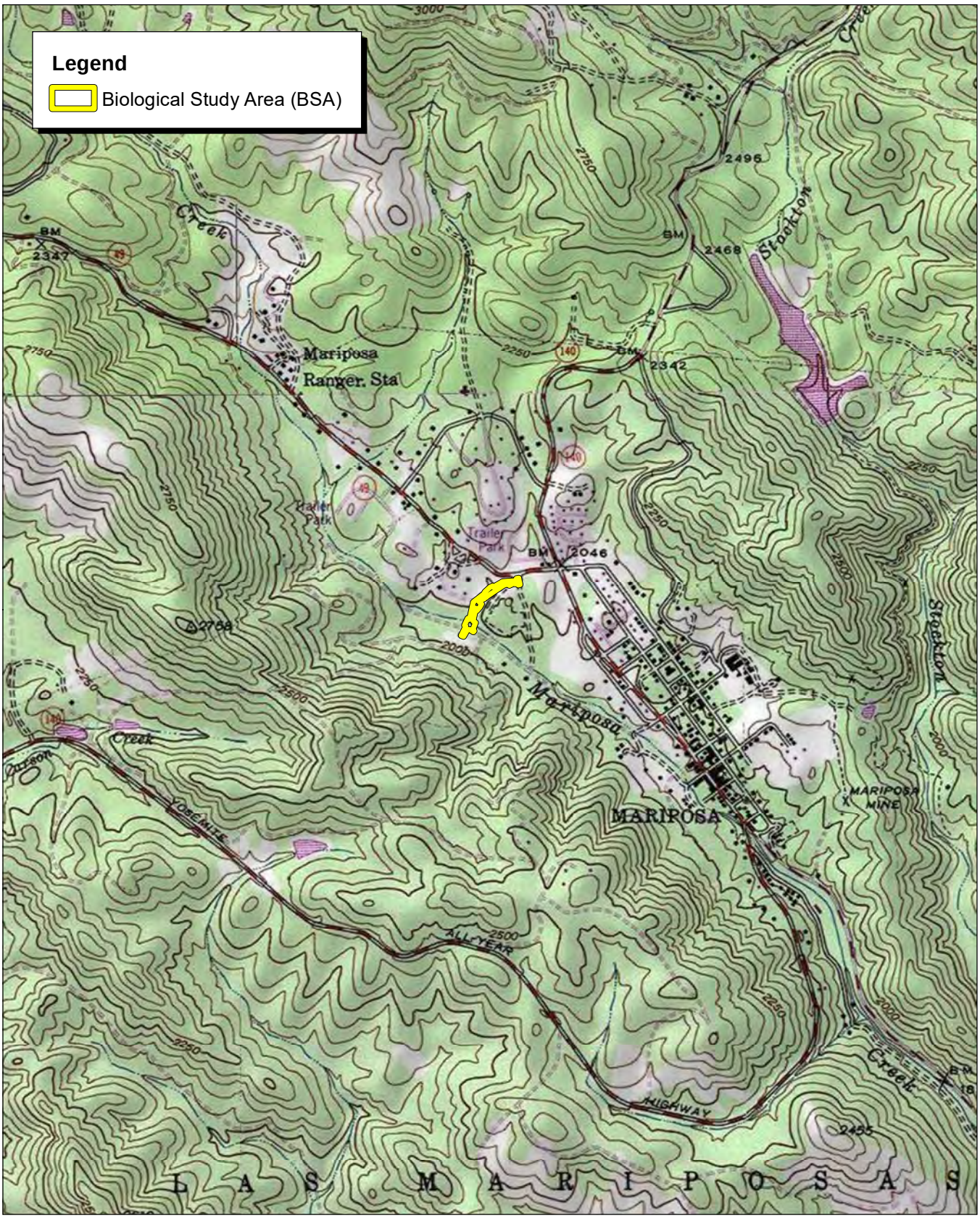
The project action area is Fournier Road and the adjacent right-of-way. The surrounding land use includes a cemetery, which is property of Mariposa County, and private residential lands.

Physical Conditions

The BSA is located on western slope of the Sierra Nevada Mountains, east of the Great Valley and Sierra Nevada Foothills. The elevation within the BSA ranges from approximately 1,995 feet above mean sea level (AMSL) on the west end of the BSA to 2,045 feet AMSL on the east end of the BSA (Figure 4; Google Inc. 2025).

Soils within the BSA are composed mostly of Loafercreek-Bonanza complex with riverwash and tailings complex surrounding Mariposa Creek. The Loafercreek-Bonanza complex is a well-drained soil with a restrictive paralithic bedrock layer 20–39 inches deep and a restrictive lithic bedrock layer 20–49 inches deep. The parent material for this soil is colluvium over residuum derived from metavolcanics. The Loafercreek-Bonanza complex is not classified as a hydric soil. The riverwash and tailings complex is a well-drained soil without a restrictive layer that is approximately 0–24 inches above the water table. The parent material for this soil is mixed alluvium. The riverwash and tailings complex mapped is classified as a hydric soil (Figure 5; United States Department of Agriculture 2025).

The BSA contain Mariposa Creek, a perennial creek that is part of the Lower Mariposa drainage basin and the greater San Joaquin River Watershed. The BSA is located approximately 17 miles north of H.V. Eastman Lake and approximately 17 miles southeast of Lake McClure.



Source: USGS Mariposa 7.5' Quadrangle / T05S R18E Sec 14, 15, 22, 23.

2,000 1,000 0 2,000
Feet

Figure 4
Topography Map



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

100 50 0 100
Feet

Figure 5
Soils Map



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

150 75 0 150
Feet

Figure 6
Biological Study Area

Biological Conditions

FCS identified all biotic habitats within the BSA during the field survey and mapped the communities on a GPS unit (Figure 3). Vegetation communities and land cover types were identified within the 1.93-acre BSA and included developed, dirt access road, interior live oak-gray pine woodland, red willow riparian woodland, wild oat-annual brome grassland, Mariposa Creek, ephemeral drainages, and underground culvert segments. Table 1, below, provides the approximate acreage of each land cover type within the BSA. For a comprehensive list of wildlife and plant species observed, see Appendix F, Species Compendium.

Table 1: Vegetation Communities and Land Cover Types on the BSA

Vegetation Community / Land Cover Type	Biological Study Area (acre)
Developed	0.78
Dirt access road	0.01
Interior live oak-gray pine woodland	0.42
Red willow riparian woodland	0.26
Wild oak-annual brome grassland	0.41
Mariposa Creek	0.04
Ephemeral Drainage	0.01
Underground culvert segment	0.0023
Total Area[1]	**1.93**

Notes:
1. Sections where drainages occur underneath woodlands account for minor differences between the total area of BSA and summarized acreage of the vegetation communities and land cover types.

Developed

Vegetation: Much of the BSA consists of the developed Fournier Road as well as portions of Joe Howard Street and Antone Road. Developed land is land that has been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Vegetation observed within this area was limited to roadside weeds emerging out of cracks in the ground, including wild oat (*Avena* sp.).

Wildlife: Developed areas within the BSA provide little to no habitat value for most wildlife species as this area is composed entirely of paved a roadway.

Invasive species: Wild oat is listed as Invasive: Moderate by the California Invasive Plant Council (Cal-IPC).

Dirt Access Road

Vegetation: There is a dirt access road near the center of the BSA that extends south from Fournier Road off-site toward the cemetery. This area is subject to semi-regular disturbance from vehicles and has low to moderate cover of non-native and invasive species present in the wild oat-annual brome disturbed grassland described below,

including wild oat, short podded mustard (*Hirschfeldia incana*), white horehound (*Marrubium vulgare*), and English plantain (*Plantago lanceolata*).

Wildlife: Dirt access roads provide little habitat value for most wildlife species. No wildlife species observed in this area during the surveys.

Invasive species: Wild oat and short podded mustard are both listed as Invasive: Moderate by the Cal-IPC. White horehound and English plantain are listed as Invasive: Limited by the Cal-IPC.

Interior Live Oak-Gray Pine Woodland

Vegetation: Interior live oak-gray pine woodland is present in small patches in upland portions of the BSA. This community corresponds to the 71.080.42 *Quercus wislizeni – Pinus sabiniana* / annual grass – herb Association that is not listed as sensitive on the CDFW California Natural Communities List (CDFW 2025b). Interior live oak (*Quercus wislizeni*) and gray pine (*Pinus sabiniana*) are the dominant trees in this woodland, with other native species including blue oak (*Quercus douglasii*) and incense cedar (*Calocedrus decurrens*) also present. There were a few scattered toyon (*Heteromeles arbutifolia*) shrubs present within this community. Herbaceous cover in this community was also sparse and mainly composed of native disturbance tolerant species including Pacific sanicle (*Sanicula crassicaulis*), miner's lettuce (*Claytonia perfoliata*), and bedstraw (*Galium* sp.).

Wildlife: The interior live oak-gray pine woodland habitat within the BSA provides minimal habitat for songbird species due to the small, isolated nature of the patches of trees and proximity to developed roads and residential developments, while the lack of adjacent foraging habitat limits the potential for nesting raptors. No active nests or avian species were observed in the small woodland patches during the field survey. Common residential mammals, such as raccoons (*Procyon lotor*) or squirrels (*Sciurus* spp.), are likely to utilize the interior live oak-gray pine woodland.

Invasive species: There was some wild oat growing in this community, which is listed as Invasive: Moderate by the Cal-IPC.

Red Willow Riparian Woodland

Vegetation: There is red willow riparian woodland present in the portion of the BSA surrounding Mariposa Creek and the adjacent portions of the tributary drainage. This community corresponds to the 61.205.01 *Salix laevigata* Association listed as Sensitive on the CDFW California Natural Communities List (CDFW 2025b). Red willow (*Salix laevigata*) is the dominant tree in this riparian woodland. Himalayan blackberry (*Rubus armeniacus*) is the only shrub present in this community and ranges between moderate and extreme density. Herbaceous plants present in this community include a variety of native and non-native species, including rough cocklebur (*Xanthium strumarium*), Great Valley gumweed (*Grindelia camporum*), tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), common St. John’s wort (*Hypericum perforatum*), smilo grass (*Stipa miliacea*), white sweetclover (*Melilotus albus*), and field hedge parsley (*Torilis arvensis*).

Wildlife: The red willow riparian woodland habitat within the BSA provides habitat for a variety songbird species, while the lack of adjacent foraging habitat limits the

potential for nesting raptors. No active nests were observed during the field survey; however, some bird species were observed within this area of the BSA, including oak titmouse, acorn woodpecker, and spotted towhee. This riparian woodland also has the potential to support semi-aquatic species that may be associated with Mariposa Creek.

Invasive species: Himalayan blackberry is listed as Invasive: High by the Cal-IPC. Field hedge parsley is listed as Invasive: Moderate by the Cal-IPC.

Wild Oat-Annual Brome Grassland

Vegetation: Wild oat-annual brome grassland is present surrounding the roadways and woodland patches in the upland portions of the BSA. This community corresponds to the 42.027.00 *Avena* spp.-*Bromus* spp. Alliance that is not listed as sensitive on the CDFW California Natural Communities List (CDFW 2025b). This community is dominated by non-native annual grasses, including wild oat, soft brome (*Bromus hordeaceus*), and Italian rye grass (*Festuca perennis*), with scattered non-native and native disturbance tolerant species including common St. John's wort, turkey-mullein (*Croton setiger*), English plantain, and Great Valley gumweed, Heermann's tarweed (*Holocarpha heermannii*), and field hedge parsley.

Wildlife: Periodically disturbed annual grassland provides little habitat value for most wildlife species; however, the native and non-native forbs can provide foraging habitat for various insects and pollinators.

Invasive species: Wild oat, Italian rye grass, and field hedge parsley are listed as Invasive: Moderate by the Cal-IPC. Soft brome, St. John's wort, and English plantain are listed as Invasive: Limited by the Cal-IPC.

Mariposa Creek

Vegetation: The BSA contains Mariposa Creek, a perennial creek that travels through the west portion of the site. Mariposa Creek travels through the red willow riparian woodland on-site and through a culvert under Fournier Road. This creek conveys flows off-site which travel approximately 16 miles before emptying into Mariposa Reservoir. Broadleaf cattail (*Typha latifolia*) was growing in shallow sections within the OHWM of this creek.

Wildlife: Mariposa Creek is part of the Lower Mariposa drainage basin and the larger San Joaquin River system. It drains into Mariposa Reservoir approximately 16 miles southwest of the BSA and contains riparian woodland. Aquatic and semi-aquatic wildlife may utilize the creek for dispersal. While the reach of the creek within the BSA appears to contain perennial water, breeding habitat is of marginal quality. This reach generally lacks the required microhabitat features (e.g., deep pooling features and dense emergent vegetation) required to support breeding habitat for wildlife species. However, there are upland basking sites and isolated areas that contain rocky substrates for amphibian oviparity.

Invasive species: There were no invasive species observed within Mariposa Creek.

Ephemeral Drainage

Vegetation: The BSA contains a roadside ephemeral drainage that conveys roadway storm flows through multiple underground culvert segments. There were no obligate wetland or facultative wetland species present within these drainages; however, there were two facultative shrubs present: Himalayan blackberry and Pacific blackberry (*Rubus ursinus*). Other species present within the drainages includes milk thistle (*Silybum marianum*), greater periwinkle (*Vinca major*), California poppy (*Eschscholzia californica*), canyon nemophila (*Nemophila heterophylla*), and ripgut brome (*Bromus diandrus*).

Wildlife: The ephemeral drainage located on the BSA is hydrologically connected to Mariposa Creek. There is riparian habitat present near where the downstream ephemeral drainage segment connects with the red willow riparian woodland surrounding Mariposa Creek. These features lack perennial water and do not support breeding habitat for aquatic or semi-aquatic wildlife species. Local wildlife species may utilize these drainages segments in a dispersal capacity in search of areas of higher quality habitat located outside the BSA.

Invasive species: Himalayan blackberry is listed as Invasive: High by the Cal-IPC. Greater periwinkle and ripgut brome are listed as Invasive: Moderate by the Cal-IPC. Milk thistle is listed as Invasive: Limited by the Cal-IPC.

Underground Culvert Segments

Vegetation: The BSA contains multiple underground culvert pipe segments that transport ephemeral flows into roadside drainage segments. The BSA also contains a single culvert that conveys the flows of Mariposa Creek underneath Fournier Road. No plants were observed growing within these culverts.

Wildlife: Given the artificial nature of the culvert pipes and the lack of soil or vegetation present within them, these features do not currently provide any additional habitat value beyond the potential to transport flows between the roadside ephemeral drainage segments along Fournier Road and the conveyance of flows underneath Fournier Road.

Invasive species: There were no invasive species observed within the underground culvert segments.

Habitat Connectivity

The CNDDB BIOS 6 Essential Connectivity Areas geospatial data set uses habitat modeling to identify areas of land with value as wildlife corridors (CDFW and Caltrans 2025). The entire area surrounding census-designated Mariposa and including the BSA is mapped as Conservation Planning Linkages on the BIOS 6 Terrestrial Connectivity Map but is outside the mapped Biogeographic Information and Observation System (BIOS 6) Essential Connectivity Areas (CDFW 2025a).

The BSA itself provides minimal habitat connectivity for the majority of local wildlife, as the majority of the BSA consists of developed road surrounded by residential and commercial development and the Mariposa Cemetery. However, Mariposa Creek travels through the west portion of the BSA through a culvert under Fournier Road

and eventually empties into Mariposa Reservoir approximately 16 miles southwest of the BSA. Mariposa Creek is part of the Lower Mariposa drainage basin and larger San Joaquin River system. Aquatic and semi-aquatic species may travel seasonally through Mariposa Creek and could potentially disperse to nearby areas of the BSA in search of areas of higher habitat quality.

Regional Species and Habitats and Natural Communities of Concern

FCS Biologists compiled a list of the threatened, endangered, and otherwise special-status species and critical habitats previously recorded within the BSA and vicinity based upon the database queries described in Section 2 and included in Appendices A–C. The list of species and their status, habitat requirements, and rationale for potential to occur are detailed in Table 2. The nearby occurrences of special-status species and sensitive natural communities were recorded based upon the CDFW CNDDB Biogeographic Information and Observation System (BIOS 6) results (CDFW 2025a), The Calflora Database (Calflora) records search results (The Calflora Database 2025), and iNaturalist records search results (iNaturalist Community 2025).

Table 2: Listed, Proposed, and Special-status Species and Critical Habitat Potentially Occurring or Known to Occur on the BSA.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
ANIMALS					
Amphibians					
California tiger salamander–central DPS *Ambystoma californiense pop. 1*	FT, ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	A	No Effect	BSA contains disturbed grassland, small patches of oak-pine woodland, and Mariposa Creek but no burrows. No occurrences recorded within 15 miles of BSA.
limestone salamander *Hydromantes brunus*	ST, FP	Found on limestone outcrops in foothill pine-chaparral belt along the Merced River and its tributaries, from 800–2,600 feet in elevation. California buckeye is an indicator of optimal habitat. Seeks cover in limestone caverns, talus, rock fissures, surface objects.	A	N/A	BSA contains Mariposa Creek but no limestone outcrops or California buckeye. Location information for this species is restricted on CNDDB; however, occurrences are restricted to quadrangles north of Mariposa.
foothill yellow-legged frog - south Sierra DPS *Rana boylii pop. 5*	FE, SE	Found in partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	HP	May affect, (but not) likely to adversely affect	BSA contains Mariposa Creek, which contains marginal habitat that may support this species. One occurrence recorded in the vicinity of Mariposa in 1899. One occurrence ~8 miles north of BSA in 2017, in a bedrock stream with pools and ripples. Many additional occurrences within 10 miles of BSA that are marked as extirpated. No critical habitat has been designated for this species.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
California red-legged frog *Rana draytonii*	FT, SSC	Found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11–20 weeks of permanent water for larval development. Must have access to estivation habitat.	HP	No Effect	BSA contains Mariposa Creek. No occurrences recorded within 20 miles of BSA. BSA does not overlap with final critical habitat for this species.
Sierra Nevada yellow-legged frog *Rana sierrae*	FE, ST	Inhabits high elevation ranges, above 6,000 feet within aquatic ecosystems in the Sierra Nevada. Always encountered within a few feet of water. Tadpoles may require 2–4 years to complete their aquatic development.	A	No Effect	BSA contains Mariposa Creek. One occurrence recorded in Sweetwater Creek ~7.5 miles northeast of BSA in 1915, marked as possibly extirpated. No other occurrences within 10 miles of BSA. The BSA is located outside of the elevation range of this species.
western spadefoot *Spea hammondii*	FPT, SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Requires vernal pools for breeding and egg-laying.	A	No Effect	BSA contains disturbed roadside grassland that would not provide suitable habitat and no vernal pools. One occurrence recorded ~11 miles east of BSA in 1952. No other occurrences within 15 miles of BSA. No critical habitat has been designated for this species.
Birds					
golden eagle *Aquila chrysaetos*	FP, SSC, MBTA	Found in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	A	N/A	BSA does not contain foothill grasslands, mountain areas, sage-juniper flats, deserts, or canyons. Two occurrences recorded near Eastman Lake ~17 miles south of BSA in 1992 and 1994.
California condor *Gymnogyps californianus*	FE, SE, MBTA	Found in deep canyons containing clefts in the rocky walls provide nesting sites. Forages up	A	No Effect	BSA does not contain foothill grasslands, savanna, chaparral, or canyons. No occurrences

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		to 100 miles from roost/nest. Requires vast expanses of open savanna, grasslands, and foothill chaparral in mountain ranges of moderate altitude.			recorded in this region of the Serria Nevadas. BSA does not overlap with final critical habitat for this species.
bald eagle *Haliaeetus leucocephalus*	SE, FP, MBTA	Found along ocean shores, lake margins, and rivers for nesting and wintering. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine, typically within 1 mile of water. Roosts communally in winter.	A	N/A	BSA does not contain ocean shores, lake margins, or wide rivers. Two occurrences recorded near Eastman Lake ~17 miles south of BSA in 2007.
Fish					
hardhead *Mylopharodon conocephalus*	SSC	Found in low to mid-elevation streams in the Sacramento-San Joaquin drainage and in the Russian River. Requires clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	A	N/A	The reach of Mariposa Creek within the BSA does not contain clear, deep pools to support this species. Ten juveniles recorded in Stockton Creek, a downstream tributary approximately 2 miles south of BSA in 2017. This occurrence was in a pooling feature and was documented to be isolated from other populations by in-stream structures both up and downstream.
Invertebrates					
Crotch's bumble bee *Bombus crotchii*	SC	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	A	N/A	BSA contains a few scattered *Eschscholzia* individuals but likely does not provide suitable hive habitat for this species. One female recorded ~7 miles west of BSA in 2024 on a *Vicia villosa*. One male recorded ~6.5 miles south of BSA in 2021 on a

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
					buttonbush. One female and associated males recorded ~6.5 miles south of BSA in 2020 on a *Phacelia cicutaria*.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	A	No Effect	BSA does not contain elderberry. One male collected in the general vicinity of Mariposa in 1974. Set of possible exit holes found in non-riparian elderberry shrub ~4.5 miles south of BSA in 2007.
monarch butterfly *Danaus plexippus plexippus*	FPT	Roosts located in wind protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	A	No Effect	BSA does not contain groves of eucalyptus, Monterey pine, or cypress. No nest sites have been recorded in this region of the Sierra Nevadas. BSA does not overlap with proposed critical habitat for this species.
Mammals					
pallid bat *Antrozous pallidus*	SSC	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	HP	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland surrounding by residential development that would not provide suitable habitat for this species. One roost recorded under a bridge in the vicinity of Briceburg ~7.5 miles north of BSA in 1997. Four individuals netted along the Merced River in Wawona ~18 miles east of BSA in 2004.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC	Found throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and	HP	N/A	BSA contains Mariposa Creek but not bridges or structures that would provide suitable roosting habitat for this species.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.			One occurrence recorded at the Mount Ophir Mint Mines, ~5.5 miles northwest of BSA in 1956. One individual collected at the Mount Ophir Mint Mines, ~9 miles northwest of BSA in 1956.
fisher - southern Sierra Nevada ESU *Pekania pennanti pop. 2*	FE, ST	Found in intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Needs large areas of mature, dense forest.	HP	No Effect	BSA contains willow riparian woodland around Mariposa Creek. One occurrence recorded in the vicinity of Fish Camp ~19 miles east of BSA in 1971. All other occurrences further east in the mountains. BSA does not overlap with proposed final critical habitat for this species.
Reptiles					
northwestern pond turtle *Actinemys marmorata*	FPT, SSC	Nests in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Requires upland habitat for basking.	HP	May affect, (but not) likely to adversely affect	BSA contains marginal habitat to potentially support this species in the form of Mariposa Creek. The Creek contains cattails and willow riparian woodland and nearby grassland areas. One undated specimen collected in the vicinity of Mariposa, added to database in 1988. No other CNDDB occurrences within 9 miles of project site. One occurrence recorded on iNaturalist ~7.5 miles north of project site in 2017. No critical habitat has been designated for this species.
PLANTS					
Congdon's onion *Allium sanbornii var. congdonii*	4.3	Perennial bulbiferous herb found in chaparral and cismontane woodland. Typically found in	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat

Common Name ***Scientific Name***	**Status[1]**	**General Habitat Description**	**Habitat Present/ Absent[2]**	**Effect Determination[3]**	**Rationale**
		ultramafic barrens or volcanic soils with scattered gray pines. Grows in serpentine, volcanic soils. Elevation: 300–1,395 m. Bloom period: April–July			for this species. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
Yosemite onion *Allium yosemitense*	CR, 1B.3	Perennial bulbiferous herb found in broadleafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. Grows in sometimes granitic, sometimes metamorphic, rocky soils. Elevation: 530–2,200 m. Bloom period: April–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA does not contain rocky soils. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
forked fiddleneck *Amsinckia furcata*	4.2	Annual herb found in cismontane woodland and valley and foothill grassland. Elevation: 50–1,000 m. Bloom period: February–May	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA does not contain rocky soils. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
big-scale balsamroot *Balsamorhiza macrolepis*	1B.2	Perennial herb found in chaparral, cismontane woodland, and valley and foothill grassland. Grows in sometimes serpentine soils. Elevation: 35–1,555 m. Bloom period: March–June	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. Two recent occurrences within 10 miles of BSA.
Pleasant Valley mariposa-lily	1B.2	Perennial bulbiferous herb found in lower montane coniferous	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
Calochortus clavatus var. avius		forest. Grows in Josephine silt loam, volcanic soils. Elevation: 300–1,800 m. Bloom period: May–July			for this species. Two recent occurrences within 10 miles of BSA.
Mariposa pussypaws *Calyptridium pulchellum*	FT, 1B.1	Annual herb found in chaparral and cismontane woodland. Grows in granitic, sometimes gravelly, sometimes sandy soils. Elevation: 400–1,100 m. Bloom period: April–August	A	No Effect	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA does not contain gravelly or sandy soils. One recent occurrence within 5 miles of BSA. No critical habitat has been designated for this species.
grassland suncup *Camissonia lacustris*	1B.2	Annual herb found in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Grows in granitic, gravelly, serpentine soils. Elevation: 180–1,220 m. Bloom Period: March–June	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA does not contain gravelly soils. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
Fresno ceanothus *Ceanothus fresnensis*	4.3	Perennial evergreen shrub found in cismontane woodland and lower montane coniferous forest. Typically found in openings. Elevation: 900–2,210 m. Bloom Period: (April) May–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA does not contain gravelly soils. BSA is 277 meters below species elevation range and is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
Mariposa clarkia *Clarkia biloba ssp. australis*	1B.2	Annual herb found in chaparral and cismontane woodland. Grows in serpentine soils.	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		Elevation: 120–1,480 m. Blooming period: April–July			for this species. Three recent occurrences within 5 miles of BSA.
beaked clarkia	1B.3	Annual herb found in cismontane woodland and valley and foothill grassland. Elevation: 60–915 m. Blooming period: April–May	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside of species range map on Calflora. One recent occurrence within 5 miles of BSA.
Sierra clarkia *Clarkia virgata*	4.3	Annual herb found in cismontane woodland and lower montane coniferous forest. Elevation: 400–1,680 m. Bloom Period: May–August	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
Mariposa cryptantha *Cryptantha mariposae*	1B.3	Annual herb found in chaparral. Grows in rocky, serpentine soils. Elevation: 90–825 m. Bloom Period: April–June	A	N/A	BSA does not contain chaparral or rocky soils. One recent occurrence within 5 miles of BSA.
mountain lady's-slipper *Cypripedium montanum*	4.2	Perennial rhizomatous herb found in broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest. Elevation: 185–2,225 m. Blooming period: March–August	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside of species range map on Calflora. No occurrences recorded within 10 miles of BSA.
Ewan's larkspur *Delphinium hansenii ssp. ewanianum*	4.2	Perennial herb found in cismontane woodland and valley and foothill grassland. Grows in rocky soils. Elevation: 60–600 m.	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		Bloom period: March–May			for this species. BSA is 8 meters above species elevation range. One historical occurrence within 5 miles of BSA. No recent occurrences within 10 miles of BSA.
recurved larkspur *Delphinium recurvatum*	1B.2	Perennial herb found in chenopod scrub, cismontane woodland, and valley and foothill grassland. Grows in alkaline soils. Elevation: 3–790 m. Bloom period: March–June	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. No occurrences recorded within 10 miles of BSA.
yellow-lip pansy monkeyflower *Diplacus pulchellus*	1B.2	Annual herb found in lower montane coniferous forest and meadows and seeps. Often found in disturbed areas. Grows in clay, vernally mesic soils. Elevation: 600–2,000 m. Bloom Period: April–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One historical occurrence within 5 miles of BSA. No recent occurrences within 10 miles of BSA.
Koch's cord moss *Entosthodon kochii*	1B.3	Moss found in cismontane woodland. Grows on soil. Elevation: 180–1,000 m. Bloom Period: N/A	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. One historical occurrence within 10 miles of BSA.
Mariposa daisy *Erigeron mariposanus*	1A	Perennial herb found in cismontane woodland. Elevation: 600–800 m. Bloom period: June–August	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One historical occurrence within 5 miles of BSA. This species was last recorded in Mariposa in 1900.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
tripod buckwheat *Eriogonum tripodum*	4.2	Perennial deciduous shrub found in chaparral and cismontane woodland. Grows in often serpentine soils. Elevation: 200–1,600 m. Bloom period: May–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. One historical occurrence within 10 miles of BSA.
tansy-flowered woolly sunflower *Eriophyllum confertiflorum var. tanacetiflorum*	4.3	Perennial shrub found in cismontane woodland and lower montane coniferous forest. Elevation: 305–1,340 m. Bloom Period: May–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. No occurrences recorded within 10 miles of BSA.
Congdon's woolly sunflower *Eriophyllum congdonii*	CR, 1B.2	Annual herb found in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Grows in metamorphic, rocky soils. Elevation: 485–1,900 m. Bloom Period: April–June	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland and small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. One historical occurrence within 10 miles of BSA.
Kings River monkeyflower *Erythranthe acutidens*	3	Annual herb found in cismontane woodland and lower montane coniferous forest. Elevation: 305–1,220 m. Bloom period: April–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. One recent occurrence within 10 miles of BSA.
slender-stemmed monkeyflower *Erythranthe filicaulis*	1B.2	Annual herb found in cismontane woodland, lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest. Grows in vernally mesic soils.	A	N/A	BSA contains riparian woodland surrounding a seasonally flooded creek but does not contain wet meadows that would support this species. One historical occurrence within 10 miles of BSA.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		Elevation: 620–1,750 m. Bloom period: April–August			
slender-stalked monkeyflower *Erythranthe gracilipes*	1B.2	Annual herb found in chaparral, cismontane woodland, and lower montane coniferous forest. Often found in burned areas or disturbed areas. Grows in decomposed granitic soils. Elevation: 500–1,300 m. Bloom Period: April–June	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One historical occurrence within 5 miles of BSA. No recent occurrences within 10 miles of BSA.
Gray's monkeyflower *Erythranthe grayi*	4.3	Annual herb found in lower montane coniferous forest and upper montane coniferous forest. Grows in mesic soils. Elevation: 550–2,900 m. Bloom Period: May–July	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. No occurrences recorded within 10 miles of BSA.
small-flowered monkeyflower *Erythranthe inconspicua*	4.3	Annual herb found in chaparral, cismontane woodland, and lower montane coniferous forest. Grows in mesic soils. Elevation: 274–760 m. Bloom period: May–June	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One recent occurrence within 5 miles of BSA.
serpentine bluecup *Githopsis pulchella ssp. serpentinicola*	4.3	Annual herb found in cismontane woodland. Grows in loam, serpentine soils. Elevation: 320–610 m. Bloom period: May–June	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is mostly above species elevation range. One recent occurrence within 10 miles of BSA.
hogwallow starfish *Hesperevax caulescens*	4.2	Annual herb found in valley and foothill grassland and shallow vernal pools. Grows in sometimes alkaline, clay, mesic soils. Elevation: 0–505 m.	A	N/A	BSA contains disturbed roadside strips of non-native annual grassland but does not contain vernal pools. BSA is 103 meters above species elevation range and

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
		Bloom period: March–June			is outside species range on Calflora. No occurrences recorded within 10 miles of BSA.
Parry's horkelia *Horkelia parryi*	1B.2	Perennial herb found in chaparral and cismontane woodland. Grows in Lone Formation and other soils. Elevation: 80–1,115 m. Blooming period: April–September	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is outside species range on Calflora. Two recent occurrences ~8 miles northeast of BSA.
Yosemite tarplant *Jensia yosemitana*	3.2	Annual herb found in lower montane coniferous forest and meadows and seeps. Elevation: 1,200–2,300 m. Blooming period: (April) May–July	A	N/A	BSA contains small patches of oak-pine woodland but does not contain meadows or seeps. BSA is 577 meters below species elevation range and is outside species range on Calflora. No occurrences recorded within 10 miles of BSA.
foothill jepsonia *Jepsonia heterandra*	4.3	Perennial herb found in cismontane woodland and lower montane coniferous forest. Grows in metamorphic, rocky soils. Elevation: 50–500 m. Bloom period: August–December	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is 108 meters above species elevation range and is outside species range on Calflora. No occurrences recorded within 10 miles of BSA.
Madera leptosiphon *Leptosiphon serrulatus*	1B.2	Annual herb found in cismontane woodland and lower montane coniferous forest. Elevation: 80–1,645 m. Bloom period: April–May	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. Two historical occurrences within 5 miles of BSA from 1800s. No recent occurrences within 10 miles of BSA.

Common Name ***Scientific Name***	**Status[1]**	**General Habitat Description**	**Habitat Present/ Absent[2]**	**Effect Determination[3]**	**Rationale**
Congdon's lomatium *Lomatium congdonii*	1B.2	Perennial herb found in chaparral and cismontane woodland. Grows in serpentine soils. Elevation: 300–2,100 m. Blooming period: March–June	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One recent occurrence within 1 mile of BSA, in chaparral on undeveloped mountain.
Mariposa lupine *Lupinus citrinus var. deflexus*	ST, 1B.2	Annual herb found in chaparral and cismontane woodland. Grows in granitic, sandy soils. Elevation: 400–685 m. Blooming period: April–May	A	N/A	BSA contains small patches of oak-pine woodland but no sandy soils. One recent occurrence within 5 miles of BSA.
shaggyhair lupine *Lupinus spectabilis*	1B.2	Annual herb found in chaparral and cismontane woodland. Grows in serpentine soils. Elevation: 260–825 m. Bloom period: April–May	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. One recent occurrence within 10 miles of BSA. Two historical occurrences within 5 miles of BSA.
elongate copper moss *Mielichhoferia elongata*	4.3	Moss found in broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, and subalpine coniferous forest. Often found on roadsides. Grows on usually acidic, sometimes carbonate, metamorphic, usually vernally mesic rock. Elevation: 0–1,960 m. Bloom period: N/A	A	N/A	BSA contains developed and dirt roads in oak-pine woodland and riparian woodland. Two historical occurrences ~8.5 miles north of BSA on roadside along Merced River.
Bacigalupi's yampah *Perideridia bacigalupii*	4.2	Perennial herb found in chaparral and lower montane coniferous forest. Grows in serpentine soils. Elevation: 450–1,255 m. Bloom period: June–August	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. Two recent occurrences ~4 miles northeast of BSA.

Common Name *Scientific Name*	Status[1]	General Habitat Description	Habitat Present/ Absent[2]	Effect Determination[3]	Rationale
bluish spike-moss *Selaginella asprella*	4.3	Moss found in cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, and upper montane coniferous forest. Grows on granitic, rocky substrate. Elevation: 1,600–2,700 m. Bloom period: July	A	N/A	BSA contains small patches of oak-pine woodland but does not contain rocky substrate. BSA is 977 meters below species elevation range. One recent occurrence ~8.5 miles northeast of BSA.
Hall's wyethia *Wyethia elata*	4.3	Perennial herb found in cismontane woodland and lower montane coniferous forest. Elevation: 1,000–1,400 m. Blooming period: May–August	A	N/A	BSA contains small patches of oak-pine woodland that likely would not provide suitable habitat for this species. BSA is 377 meters below species elevation range. Two recent occurrences within 5 miles of BSA.

Notes:
m. = meters

[1] Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); Migratory Bird Treaty Act (MBTA); California Native Plant Society (CNPS) California Rare Plant Rank (CRPR):

- 1A – plants presumed extirpated in California
- 1B – plants rare, threatened, or endangered in California and elsewhere
- 2 – plants rare, threatened, or endangered in California but more common elsewhere
- 3 – plants about which information is needed-a review list
- 4 – plants of limited distribution-a watch list
  - .1–seriously endangered in California
  - .2–fairly endangered in California
  - .3–not very endangered in California

[2] Absent [A]–no habitat present and no further work needed. Habitat Present [HP]–habitat is, or may be present. The species may be present. Present [P]–the species is present. Critical Habitat [CH]–project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

[3] Effects determinations are provided only for federally listed species. Not Applicable [N/A]–not a federally listed species; Biological Study Area (BA)

Chapter 4–Results: Biological Resources, Discussion of Impacts, and Mitigation

Habitats and Natural Communities of Special Concern

Habitats are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on-site.

A query of Sensitive Natural Communities in CNDDB (CDFW 2026) was performed for the *Mariposa, California* USGS 7.5-minute Topographic Quadrangle Map and all eight surrounding quadrangles. CNDDB identified the following sensitive habitat as occurring in the general project region: Central Valley drainage hardhead/squawfish. Mariposa Creek occurs on-site; however, the reach of Mariposa Creek within the BSA is unlikely to provide suitable habitat for hardhead/squawfish.

The BSA contains Mariposa Creek and multiple ephemeral drainage segments separated by underground culvert pipes. A preliminary JD was conducted for the site that determined the BSA includes a total length of 295 linear feet, 3,186 square feet (0.07 acre) of potential waters of the United States and 1,027 linear feet, 3,873 square feet (0.08 acre) of potential waters of the State. Additionally, any impacts on drainage channels and associated riparian vegetation are expected to be regulated by the CDFW pursuant to the Streambed Alteration Program, California Fish and Game Code Section 1602, *et seq*. The report did not find any evidence of wetlands in the BSA.

The BSA also contains one sensitive natural community as identified by the CDFW California Natural Communities List: 61.205.01 *Salix laevigata* riparian woodland. The proposed project would result in impacts to Mariposa Creek, the ephemeral drainage, and the red willow riparian habitat community within the BSA. Impacts to these features would likely require a Section 404 Clean Water Act Pre-construction Notification from the USACE, a Section 401 Water Quality Certification from the State Water Board, and a Section 1602 Streambed Alteration Agreement from CDFW.

A summary of project-related impacts is included in Figure 7 and within Table 3.



Source: ESRI World Imagery. Mark Thomas, 05/29/2025, updated 06/05/2025.

Figure 7
Project Impacts Map

Table 3: Project Impacts

Vegetation Community / Land Cover Type	Biological Study Area (acre)	Project Impact Area (acre)
Developed	0.78	0.62
Dirt access road	0.01	0.01
Interior live oak-gray pine woodland	0.42	0.38
Red willow riparian woodland	0.26	0.17
Wild oak-annual brome grassland	0.41	0.26
Mariposa Creek	0.04	0.03
Ephemeral Drainage	0.01	0.01
Underground culvert segment	0.0023	0.0023
Total Area[1]	**1.93**	**1.48**

Notes:
1. Sections where drainages occur underneath woodlands account for minor differences between the total area of BSA and summarized acreage of the vegetation communities and land cover types.

Discussion of Wetlands and Other Waters

Survey Results

Mariposa Creek travels through the west portion of the BSA. Mariposa Creek travels through the red willow riparian woodland on-site and through a culvert under Fournier Road. This creek conveys flows off-site which travel approximately 16 miles before emptying into Mariposa Reservoir. Broadleaf cattail was growing in shallow sections within the OHWM of this creek.

The BSA contains a roadside ephemeral drainage that conveys roadway storm flows through multiple underground culvert segments. There were no obligate wetland or facultative wetland species present within these drainages; however, there were two facultative shrubs present: Himalayan blackberry and Pacific blackberry. Other species present within the drainages includes milk thistle, greater periwinkle, California poppy, and canyon nemophila. The roadside drainage segments were connected by multiple underground culvert pipe segments that transport ephemeral flows. No plants were observed growing within these culverts.

The JD did not find any evidence of wetlands in the BSA.

Project Impacts

The BSA contains Mariposa Creek and multiple ephemeral drainage segments separated by underground culvert pipes. A preliminary Aquatic Resources Jurisdictional Delineation was conducted for the site that determined the BSA includes a total length of 295 linear feet, 3,186 square feet (0.07 acre) of potential waters of the United States and 1,027 linear feet, 3,873 square feet (0.08 acre) of potential waters of the State, as detailed in Table 4.

The proposed project would impact all of the potential waters that were identified within the JD and Table 3. Impacts to these features would likely require a Section 404 Clean Water Act Pre-Construction Notification from the USACE and a Section 401 Water Quality Certification from the State Water Board. Additionally, any impacts on drainage channels and associated riparian vegetation are expected to be regulated by the CDFW pursuant to the Streambed Alteration Program, California Fish and Game Code Section 1602, *et seq*. The report did not find any evidence of wetlands in the BSA.

Table 4: Project Impacts to Wetlands and Other Waters

Aquatic Feature	Segment ID	Length (ft.)	OHWM Width (ft.)	Area (sq. ft.)	Area (acre)
Open ephemeral drainage channel	2-1	181	1	181	0.004
Open ephemeral drainage channel	2-5	422	1	422	0.009
Culvert pipe	1-1	20	0.5	10	0.0002
Culvert pipe	2-2	41	0.5	21	0.0004
Culvert pipe	2-3	30	0.5	15	0.0003
Culvert pipe	2-4	38	1	38	0.0008
Culvert pipe	3-3	25	1.5	38	0.0008
Mariposa Creek	3-1	93	11.6	1,079	0.02
Mariposa Creek	3-2	90	12.6	1,133	0.03
Mariposa Creek	3-4	87	10.75	936	0.02
Sum of Aquatic Features	**–**	**1,027**	**–**	**3,873**	**0.08**

Notes:
ft. = feet
sq. ft. = square feet

Avoidance and Minimization Efforts

Implementation of the following avoidance and minimization measures would ensure impacts do not adversely affect wetlands and other waters.

Avoidance and Minimization Measure 1: Implement Water Quality Best Management Practices

- Before any ground-disturbing activities, the County shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) (as required under the State Water Resource Control Board's (State Water Board's) General Construction Permit Order 2009-0009-DWQ [and as amended by most current order(s)]) that includes erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after project construction. The SWPPP shall include site design to minimize off-site stormwater runoff that might otherwise affect adjacent stream habitat.

- The SWPPP shall be prepared with the following objectives:
  (a) to identify pollutant sources, including sources of sediment, that may affect the quality of stormwater discharges from the construction of the proposed project;
  (b) to identify Best Management Practices (BMPs) to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the Project during construction; construction;
  (c) to outline and provide guidance for BMP monitoring;
  (d) to identify proposed Project discharge points and receiving waters;
  (e) to address post-construction BMP implementation and monitoring; and
  (f) to address sedimentation, siltation, and turbidity.
- The SWPPP will require BMPs, including, but not limited to:
  - Conduct ground-disturbing activities adjacent to and within Mariposa Creek and the ephemeral drainage during the low-flow period (generally between April 15 and October 15).
  - Install sediment fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and Mariposa Creek and the ephemeral drainage, as necessary, to ensure that construction debris and sediment does not inadvertently enter the drainage. The County will also cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch.
  - No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic habitat.
  - All machinery used during construction of the project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.
  - Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, State, and/or federal regulations.

Avoidance and Minimization Measure 2: Coordination with Regulatory Agencies and Compensation for Permanent Loss of Regulated Jurisdictional Features

- The project applicant shall coordinate to the extent required with the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) to obtain the applicable regulatory permits for the loss of non-wetland waters of the United States and waters of the State.

- To compensate for the permanent loss and the temporary loss non-wetland waters and sensitive natural communities associated with proposed project activities, the applicant would purchase credits at an approved mitigation bank, or contribute to an agency-approved in lieu fee program to ensure no net loss of aquatic resource functions and values. The compensation ratio would be a

minimum of 1:1 (1 acre of aquatic resource habitat credit for every 1 acre of impact) to ensure no net loss of habitat functions and values.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure project impacts do not adversely affect wetlands and other waters. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The Resource Study Area (RSA) for wetlands and other waters is the Lower Mariposa drainage basin. The proposed project would impact sections of Mariposa Creek and ephemeral drainages on the BSA. The avoidance and minimization efforts described above would ensure that project impacts do not adversely affect wetlands and other waters. Other projects within the Lower Mariposa drainage basin are subject to the same local, State, and federal regulations described in Chapter 2 that require coordination with USACE, CDFW, and the RWQCB for all potentially jurisdiction aquatic features located within a project impact area. Therefore, cumulative project impacts would not adversely affect wetlands and other waters.

Discussion of Red Willow Riparian Woodland

Survey Results

There is red willow riparian woodland surrounding Mariposa Creek in the western section of the BSA. This community is situated on relatively flat slopes and is transected by Fournier Road and there is residential development on both sides of Maripsa Creek adjacent to the project site. Red willow is the dominant tree in this riparian woodland. Himalayan blackberry is the only shrub present in this community ranging from moderate to extremely dense. Herbaceous plants present in this community include a variety of native and non-native species, including rough cocklebur, Great Valley gumweed, tall flatsedge, curly dock, common St. John's wort, smilo grass, and white sweetclover. This community corresponds to the 61.205.01 *Salix laevigata* Association that is listed as Sensitive on the CDFW California Natural Communities List (CDFW 2025b).

The red willow riparian woodland habitat within the BSA provides habitat for songbird species that are not significantly disturbed by residential development, while the lack of adjacent foraging habitat limits the potential for nesting raptors. No active nests were observed during the field survey; however, bird species were observed within this area of the BSA, including oak titmouse, acorn woodpecker, and spotted towhee. This riparian woodland also has the potential to support semi-aquatic species that may be associated with Mariposa Creek.

Project Impacts

The proposed project would permanently impact 0.17 acre of red willow riparian woodland (Figure 3). Permanent impacts would include the removal of trees to construct an updated crossing over under Fournier Road. Project impacts on red willow riparian woodland are expected to be regulated by the CDFW and are mitigated through Avoidance and Minimization Measure 2 as detailed above.

Avoidance and Minimization Efforts

Impacts to red willow riparian woodland are mitigated through Avoidance and Minimization Measure 2 as detailed above.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described under Wetlands and Other Waters would ensure the proposed project does not adversely affect red willow riparian woodland. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for red willow riparian woodland is the Lower Mariposa drainage basin. The proposed project would impact sections of red willow riparian woodland surrounding Mariposa Creek on the BSA. The avoidance and minimization efforts described in wetlands and other waters above would ensure that the proposed project does not adversely affect red willow riparian woodland. Other projects within the Lower Mariposa drainage basin are subject to the same local, State, and federal regulations described in Chapter 2 that require coordination with CDFW and the RWQCB for all riparian woodland located within a project impact area. Therefore, cumulative project impacts would not adversely affect red willow riparian woodland and other riparian woodlands.

Special-status Plant Species

Plants are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on the BSA. No special-status plants were found within the project impact area or the greater BSA. Based upon the historical and ongoing anthropogenic use and disturbance of Fournier Road, the BSA is unlikely to provide moderately suitable habitat for any special-status plant species.

Survey Results

No special-status plant species were recorded during the reconnaissance-level survey. No critical habitats for special-status plant species occur on the BSA.

Project Impacts

Because of the high usage of Fournier Road throughout the BSA, there is a proliferation of non-native and invasive species within Mariposa Creek and the surrounding drainage areas. For this reason, the BSA would likely not provide suitable habitat for any special-status plant species. Therefore, the proposed project is not expected to adversely affect any special-status plant species.

Cumulative Impacts

The RSA for special-status plant species is Mariposa County. The proposed project is not expected to adversely affect any special-status plant species, therefore there are no additions to cumulative impacts within Mariposa County. Additionally, other projects within Mariposa County are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to special-status plant species. Therefore, cumulative project impacts would not adversely affect special-status plant species.

Special-status Animal Species

Animals are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on-site. No special-status animal species were found within the project impact area or the greater project site. The CDFW, CNDDB, and USFWS IPaC database identified 17 special-status wildlife species that have occurrences within the nine-quadrangle region of the project site. Of these, FYLF, PB, TBEB, and NPT; have been previously recorded within the vicinity of the project site and in habitats similar to those present on the project site. While these species have a low potential to utilize the project site due to the marginal quality of the habitat and the historical and ongoing anthropogenic use and disturbance of the project site, there is the potential that they could utilize the project site for dispersal to better suited habitat. Additionally, common migratory birds that are protected under the MBTA and California Fish and Game Code may utilize mature trees located on the project site seasonally for nesting habitat. These species are discussed in further detail below.

Discussion of Foothill Yellow-legged Frog

Survey Results

FYLF is listed under the federal Endangered Species Act as endangered and is listed under CESA as endangered. This species is found in a variety of habitats, specifically in partly shaded shallow streams and riffles with rocky substrates. FYLF needs at least some cobble-sized substrate for egg-laying and at least 15 weeks of water to attain metamorphosis. FYLF stay near to water and have rarely been reported far from the water edge (USFWS 2025). There was one occurrence of this species recorded ~8 miles north of the project site in 2017, in a bedrock stream with pools and ripples. There was one historical occurrence recorded in the general vicinity of Mariposa in 1899.

FYLF was not observed during the reconnaissance-level field survey. The BSA contains Mariposa Creek, a perennial creek that supports cattails and adjacent red willow riparian woodland. Mariposa Creek may provide potentially marginal breeding habitat during the high flow season. No critical habitat has been designated for this species.

Project Impacts

The BSA contains Mariposa Creek, which may provide potentially suitable breeding habitat for FYLF during high flow seasons. Implementation of the measures described below would ensure that take of FYLF is avoided.

Avoidance and Minimization Efforts

Implementation of the following measures would ensure avoidance of impacts on FYLF.

Avoidance and Minimization Measure 3: Seasonal Work Restriction

- Project activities shall be restricted to the dry season (e.g., generally between April 15 and October 15), unless the creek is dry or as otherwise specified by

the appropriate agencies during the regulatory permitting process. This window can be extended based on stream conditions, if approved in writing by regulatory agencies with jurisdiction.

Avoidance and Minimization Measure 4: Worker Environmental Awareness Program for FYLF

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training shall include a description of the FYLF and its habitat, the specific measures being implemented to conserve the FYLF for the current project, and the boundaries within which the project may be accomplished.

Avoidance and Minimization Measure 5: Pre-Construction Survey for FYLF

- A qualified Biologist shall survey the project site no more than 5 days before the onset of work activities. If any life stage of the FYLF is detected, construction activities shall not be allowed to commence until consultation with USFWS and CDFW has occurred.

Avoidance and Minimization Measure 6: Exclusion Fencing

- Barrier fencing shall be installed around the worksite to prevent special-status species including FYLF and NPT from entering the work area. A qualified Biologist shall be present during the installation of exclusion fencing. Barrier fencing shall be removed within 72 hours of completion of work.

Avoidance and Minimization Measure 7: Minimize Vegetation Removal

- The disturbance or removal of vegetation, especially riparian vegetation, and native tree species would not exceed the minimum necessary to complete the project and would only occur within the defined work area. Precautions would be taken to avoid other damage to vegetation by people or equipment. Areas where avoidance of impacts to riparian areas and native tree species is determined to be feasible will be protected during project activities. These areas would be considered environmentally sensitive areas and exclusion fencing would be installed to ensure avoidance. No trees or riparian vegetation outside of the project footprint would be removed.

Avoidance and Minimization Measure 8: Monitor during Dewatering Activities

- Appropriate temporary cofferdams shall be used to dewater the construction site and divert water through the impact area during the construction period to prevent impeding water flow through the work area. When dewatering is required, a qualified Biologist shall be present during the dewatering period to inspect and ensure that sensitive aquatic species will not be trapped within the temporary cofferdams and to monitor the construction site during aquatic species relocation and dewatering activities. If special-status aquatic species are found within the cofferdams, then all work shall stop, and the appropriate agencies shall be notified. Any species observed shall be allowed to voluntarily

move outside of the work area on its own. All cofferdams shall be inspected and maintained on a daily basis to ensure its integrity for the duration of the work below the ordinary high water mark (OHWM) of the creek. Pumps used for dewatering shall have fish screens, as identified in project permits, installed to minimize intake of fish and other aquatic species into pumps. Diversion structures shall be left in place until all in-stream work is completed.

Avoidance and Minimization Measure 9: Provide Escape Ramps or Cover Open Trenches

- To avoid entrapment of wildlife, all excavated steep-walled holes or trenches more than 1 foot deep will be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or similar materials. Providing escape ramps or covering open trenches will prevent injury or mortality of wildlife resulting from falling into trenches and becoming trapped. The trenches will be thoroughly inspected for the presence of federally listed species at the beginning of each workday. Any species observed shall be allowed to voluntarily move outside of the work area on its own. If at any time a trapped listed animal is discovered, the approved Biologist, or an on-site designee identified by the approved Biologist, will immediately place escape ramps or other appropriate structures to allow the animal to escape.

Avoidance and Minimization Measure 10: Revegetation

- Areas scheduled for grading and/or vegetation shall be revegetated utilizing an assemblage of native upland vegetation suitable for the area. Invasive, exotic plants shall be controlled to the maximum extent practicable during construction. This measure shall be implemented in all areas disturbed by activities associated with the project unless the applicable regulatory agencies determine that it is not feasible or practical.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure no take of FYLF. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for FYLF is the Lower Mariposa drainage basin. The proposed project has the potential to impact FYLF that may utilize Mariposa Creek during high flow seasons. The avoidance and minimization efforts described above would ensure no take of FYLF. Other projects within the Lower Mariposa drainage basin are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to FYLF. Therefore, cumulative project impacts would not adversely affect FYLF.

Discussion of Pallid Bat

Survey Results

PB is a CDFW Species of Special Concern. This species is found in deserts, grasslands, shrublands, woodlands, and forests, most commonly in open, dry habitats with rocky areas for roosting. This species is very sensitive to high temperatures and disturbances of roosting sites (CDFW 2026). There was one roost recorded under a bridge in the vicinity of Briceburg, approximately 7.5 miles north of the project site, in 1997. There were four individuals netted along the Merced River in Wawona, approximately 18 miles east of the project site in 2004.

PB was not observed during the reconnaissance-level field survey. The BSA contains red willow woodland and scattered mature trees associated with the interior live oak-gray pine woodland that may provide suitable roosting habitat for this species. No critical habitat has been designated for this species.

Project Impacts

There is potentially suitable roosting habitat within the BSA, specifically in the form of mature trees throughout the site and within the red willow riparian woodland. Tree removal is expected to occur within the BSA to support project construction and temporary impacts due to construction noise and vibration disturbance would also occur. However, implementation of the measures described below would ensure that take of PB is avoided.

Avoidance and Minimization Efforts

Implementation of the following measures would ensure avoidance of impacts on PB.

Avoidance and Minimization Measure 11: Avoidance of Maternity Season

- To the extent practicable, vegetation and/or tree removal shall be scheduled to avoid the bat maternity season. The bat maternity season typically runs from April 15 through September 1. Any bat evictions must be conducted during periods of dry weather and outside of the maternity season.

Avoidance and Minimization Measure 12: Worker Environmental Awareness Program for Roosting Bats

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training will include a description of the pallid bat (PB) and its habitat, the specific measures that are being implemented to conserve the PB for the current project, and the boundaries within which the project may be accomplished.

Avoidance and Minimization Measure 13: Pre-Construction Surveys for Bats and Roosts

- A qualified Biologist will survey for roosting bats prior to tree removal activities. The qualified Biologist would survey trees and rocky outcrops within the project site impact area and identify any snags, hollow trees, or other trees with cavities

that may provide suitable roosting habitat for bats. If no suitable roosting trees are found, construction may proceed. Trees containing suitable roosting habitat would be removed in two steps occurring over 2 consecutive days. On the first day, small limbs containing no cavity, crevice, or exfoliating bark would be removed using chainsaws only. On the second day, the remainder of the tree would be removed. If bats are found or evidence of use by bats is present, the qualified Biologist will work with CDFW to implement measures to avoid or minimize disturbance to the colony.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure no take of PB. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for PB is Mariposa County. The proposed project has the potential to impact PB that may temporarily roost in trees within the red willow riparian woodland and other sections of the BSA. The avoidance and minimization efforts described above would ensure no take of PB. Other projects within Mariposa County are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to PB. Therefore, cumulative project impacts would not adversely affect PB.

Discussion of Townsend's Big-eared Bat

Survey Results

TBEB is a CDFW Species of Special Concern. This species is found throughout California in a wide variety of habitats but most commonly in mesic sites. TBEB roosts in the open, hanging from walls and ceilings, but also utilize large, hollow trees. This species is extremely sensitive to human disturbance and roosting sites are limited. There was one occurrence recorded at the Mount Ophir Mint Mines, approximately 5.5 miles northwest of the project site, in 1956. There was one individual collected at the Mount Ophir Mint Mines, approximately 9 miles northwest of the project site in 1956.

TBEB was not observed during the reconnaissance-level field survey. The BSA contains red willow woodland and scattered mature trees associated with the interior live oak-gray pine woodland that may provide suitable roosting habitat for this species. No critical habitat has been designated for this species.

Project Impacts

There is potentially suitable roosting habitat within the BSA, specifically in the form of mature trees throughout the site and within the red willow riparian woodland. Tree removal is expected to occur within the BSA to support project construction and temporary impacts due to construction noise and vibration disturbance would also occur. However, implementation of the measures described below would ensure that take of TBEB is avoided.

Avoidance and Minimization Efforts

Implementation of Avoidance and Minimization Measures 11 and 13 and the following measures would ensure avoidance of impacts on TBEB.

Avoidance and Minimization Measure 14: Worker Environmental Awareness Program

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training will include a description of the Townsend's big-eared bat (TBEB) and its habitat, the specific measures being implemented to conserve the TBEB for the current project, and the boundaries within which the project may be accomplished.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure no take of TBEB. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for TBEB is Mariposa County. The proposed project has the potential to impact PB that may temporarily roost in trees within the red willow riparian woodland and other sections of the BSA. The avoidance and minimization efforts described above would ensure no take of TBEB. Other projects within Mariposa County are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to TBEB. Therefore, cumulative project impacts would not adversely affect TBEB.

Discussion of Northwestern Pond Turtle

Survey Results

NPT is proposed as threatened under the federal Endangered Species Act and is a California Species of Special Concern. This species nests in ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation. NPT requires nearby upland habitat for basking (USFWS 2023). There was one undated specimen collected in the vicinity of Mariposa and one undated specimen collected along SR-40, approximately 9.5 miles east of the BSA. There were two occurrences recorded in the Merced River Wilderness Study Area approximately 9.5–10 miles north of the BSA in 1993 and 1995. There was one occurrence recorded approximately 11 miles northeast of the BSA in 1999.

NPT was not observed during the reconnaissance-level field survey. The BSA contains Mariposa Creek, which supports cattails and adjacent red willow riparian woodland. No critical habitat has been designated for this species.

Project Impacts

The BSA contains Mariposa Creek and adjacent riparian woodland, which may provide potentially suitable habitat for this species. The proposed project would permanently impact sections of Mariposa Creek and the adjacent riparian woodland. However, implementation of the measures described below would ensure that take of NPT is avoided.

Avoidance and Minimization Efforts

Implementation of Avoidance and Minimization Measures 3, 6, 7, 8, 9, and 10 and the following measures would ensure avoidance of impacts on NPT.

Avoidance and Minimization Measure 15: Worker Environmental Awareness Program for NPT

- Before any activities begin on the project, a qualified Biologist shall conduct a Worker Environmental Awareness Program for all construction personnel. At a minimum, the training will include a description of the northwestern pond turtle (NPT) and its habitat, the specific measures that are being implemented to conserve the NPT for the current project, and the boundaries within which the project may be accomplished.

Avoidance and Minimization Measure 16: Pre-construction Survey for NPT

- A qualified Biologist shall survey the project site no more than 5 days before the onset of work activities. If any life stage of the northwestern pond turtle (NPT) is detected, construction activities shall not be allowed to commence until consultation with California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) has occurred.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure no take of NPT. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for NPT is the Lower Mariposa drainage basin. The proposed project has the potential to impact NPT that may utilize Mariposa Creek or surrounding areas for basking. The avoidance and minimization efforts described above would ensure no take of NPT. Other projects within the Lower Mariposa drainage basin are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to NPT. Therefore, cumulative project impacts would not adversely affect NPT.

Discussion of Nesting Birds

Survey Results

The MBTA and the California Fish and Game Code protect nesting resident and migratory birds, including their eggs, nests, and young. The majority of migratory birds that have the potential to nest within the BSA are not special-status species and are regionally common. Nonetheless, the proposed project would implement measures to avoid and minimize effects on active nests of migratory birds to comply with the MBTA and California Fish and Game Code.

Multiple avian species covered under the California Fish and Game Code were observed on the BSA during the reconnaissance-level field survey include oak titmouse, acorn woodpecker, and spotted towhee. No active nests were observed during the reconnaissance-level field survey; however, several have the potential to

nest within or adjacent to the BSA during nesting season. No critical habitats for bird species are located on the BSA.

Project Impacts

There is suitable nesting habitat within the BSA, specifically in the form of mature trees throughout the site and within the red willow riparian woodland. Tree removal is expected to occur within the BSA to support project construction, and temporary impacts due to construction noise and vibration disturbance would also occur. While there is potential for birds to nest within the BSA during the nesting season, implementation of the measures described below would ensure that the proposed project would not adversely affect protected nesting birds.

Avoidance and Minimization Efforts

Implementation of the following measures would ensure avoidance of impacts on migratory birds.

Avoidance and Minimization Measure 17: Avoidance of Nesting Season

- To the extent practicable, vegetation and/or tree removal shall be scheduled to avoid the avian nesting season. The nesting season typically runs from February 1 through August 31.

Avoidance and Minimization Measure 18: Pre-Construction Surveys for Active Nests

- If the proposed project requires vegetation and/or tree removal to be removed during the nesting season (February 1 to August 31), pre-construction nesting bird surveys shall be conducted no more than 5 days prior to the start of ground or vegetation disturbance (including tree removal).

Avoidance and Minimization Measure 19: Buffer Zone for Active Nests

- If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately sized avoidance buffer based on the species and anticipated disturbance level. (The California Department of Fish and Wildlife [CDFW] recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors.) A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and/or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently, as confirmed by a qualified Biologist. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s). In consultation with CDFW, the qualified Biologist shall monitor the active nest during the subject construction activities and modify the protection zone accordingly to prevent project-related nest disturbance until the young have fledged.

Compensatory Mitigation

Implementation of avoidance and minimization efforts described above would ensure no take of protected nesting birds. Therefore, no compensatory mitigation is required.

Cumulative Impacts

The RSA for protected nesting birds is Mariposa County. The proposed project has the potential to impact protected nesting birds that may seasonally nest in trees within the red willow riparian woodland and other sections of the BSA. The avoidance and minimization efforts described above would ensure no take of protected nesting birds. Other projects within Mariposa County are subject to the same local, State, and federal regulations described in Chapter 2 that require analysis, avoidance, minimization, and mitigation for potential individual project impacts to protected nesting birds. Therefore, cumulative project impacts would not adversely affect protected nesting birds.

Chapter 5–Conclusions and Regulatory Determinations

Effect determinations for federally listed and candidate species are detailed in Table 3 in Chapter 3 and summarized in Table 5 below.

This proposed project is located outside of NOAA Fisheries jurisdiction; therefore, an NOAA Fisheries species list is not required and no effects to NOAA Fisheries species are anticipated.

Multiple federally listed species have been recorded within the vicinity of the BSA; however, only two could reasonably be expected to occur in the BSA due to the presence of potentially suitable habitat and nearby occurrences: FYLF and NPT. Measures to avoid, minimize, and compensate for impacts on these species are described above. The project **may affect but is not likely to adversely affect (NLAA)** the FYLF and the NPT, and formal consultation for these species should not be necessary. However, the need for formal consultation for the FYLF and the NPT will be determined by the USFWS.

Table 5: Effect Determinations for Federally Listed and Proposed Species Potentially Occurring or Known to Occur on the BSA.

Common Name *Scientific Name*	Status	Habitat Present/ Absent	Effect Determination
California tiger salamander – central DPS *Ambystoma californiense pop. 1*	Threatened	Absent	No Effect
foothill yellow-legged frog - south Sierra DPS *Rana boylii pop. 5*	Endangered	Present	May affect, (but not) likely to adversely affect
California red-legged frog *Rana draytonii*	Threatened	Present	No Effect
Sierra Nevada yellow-legged frog *Rana sierrae*	Endangered	Absent	No Effect
western spadefoot *Spea hammondii*	Proposed Threatened	Absent	No Effect
California condor *Gymnogyps californianus*	Endangered	Absent	No Effect
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Threatened	Absent	No Effect
monarch butterfly *Danaus plexippus plexippus*	Proposed Threatened	Absent	No Effect
fisher - southern Sierra Nevada ESU *Pekania pennanti pop. 2*	Endangered	Present	No Effect
northwestern pond turtle *Actinemys marmorata*	Proposed Threatened	Present	May affect, (but not) likely to adversely affect
Mariposa pussypaws	Threatened	Absent	No Effect

Common Name *Scientific Name*	Status	Habitat Present/ Absent	Effect Determination
Calyptridium pulchellum			

Essential Fish Habitat Consultation Summary

No Essential Fish Habitat (EFH) exists within the BSA, because no fish species subject to any fisheries management plans are present. Therefore, consultation with NOAA Fisheries concerning EFH is not warranted.

California Endangered Species Act Consultation Summary

Multiple State-listed species have been recorded within the vicinity of the BSA; however, only one could reasonably be expected to occur in the BSA due to the presence of potentially suitable habitat and nearby occurrences: FYLF. Measures to avoid, minimize, and compensate for impacts on this species are described above. The project **may affect but is not likely to adversely affect** the FYLF and formal consultation for this species should not be necessary. However, the need for formal consultation for the FYLF will be determined by the CDFW.

Wetlands and Other Waters Coordination Summary

The BSA contains Mariposa Creek and multiple ephemeral drainage segments separated by underground culvert pipes. A preliminary Aquatic Resources Jurisdictional Delineation was conducted for the site that determined the BSA includes a total length of 295 linear feet, 3,186 square feet (0.07 acre) of potential waters of the United States and 1,027 linear feet, 3,873 square feet (0.08 acre) of potential waters of the State. Additionally, any impacts on drainage channels and associated riparian vegetation are expected to be regulated by the CDFW pursuant to the Streambed Alteration Program, California Fish and Game Code Section 1602, *et seq*. The report did not find any evidence of wetlands in the BSA.

The proposed project would result in impacts to Mariposa Creek, the ephemeral drainage, and the red willow riparian habitat community within the BSA. Impacts to these features would likely require a Section 404 Clean Water Act Pre-construction Notification from the USACE, a Section 401 Water Quality Certification from the State Water Board, and a Section 1602 Streambed Alteration Agreement from CDFW to impact these features. Implementation of the avoidance and minimization measures detailed within the Discussion of Wetlands and Other Waters would ensure that the proposed project would not adversely affect non-wetland waters and sensitive natural communities.

Invasive Species

Many regionally common invasive plant species were observed within the BSA, as described above. The majority of the work will be conducted in the riparian woodland, which currently contains a mix of native, non-native, and invasive species. Implementation of Avoidance and Minimization Measures 7 and 10, limiting vegetation

removal and requiring revegetation of impact areas, would ensure that there is not a substantial increase in invasive vegetation within the BSA.

Migratory Bird Treaty Act Summary

No migratory birds were observed on the BSA during the reconnaissance-level survey; however, there is the potential for migratory birds to occur and nest seasonally on the project site. The proposed project has the potential to impact the nests of birds protected under the MBTA through removal of mature trees located in the oak-pine woodland and red willow riparian woodland. Measures to avoid, minimize, and compensate for impacts to nests protected under the MBTA are outlined in Discussion of Nesting Birds above.

California Fish and Game Code Summary

Multiple resident bird species were observed on the BSA during the reconnaissance-level survey, including oak titmouse, acorn woodpecker, and spotted towhee. There is the potential for resident and migratory birds protected under California Fish and Game Code to nest seasonally on the project site. The proposed project has the potential to impact the nests of birds protected under the California Fish and Game Code through removal of mature trees located in the oak-pine woodland and red willow riparian woodland. Measures to avoid, minimize, and compensate for impacts to nests protected under the California Fish and Game Code are outlined in Discussion of Nesting Birds above.

Chapter 6–References

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Appendix A–IPaC Database Query

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 01/26/2026 19:23:26 UTC
Project Code: 2026-0000714
Project Name: Fournier Road Improvement Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2026-0000714

Project Name: Fournier Road Improvement Project

Project Type: Culvert Repair/Replacement/Maintenance

Project Description: The proposed project is located in Mariposa County along Fournier Road, beginning approximately 200 feet south of Antone Road and extending northeast to Joe Howard Street. Fournier Road is a two-way, 15-foot-wide roadway located in the southwest portion of the unincorporated community of Mariposa. Fournier Road consists of two lanes and is mostly unstriped except for a 100-foot section of striping near its intersection with Joe Howard Street. Fournier Road intersects Joe Howard Street approximately 75 feet south of State Route 49. Fournier Road crosses over Mariposa Creek at a low water crossing near the southern portion of the project site. The existing 18-inch culvert is undersized and contributes to roadway overtopping during storm events.

The project site is approximately 0.23 mile long and would consist primarily of roadway widening and associated improvements. The project site is 1.93 acres, including 0.47 acre of ground disturbance and 1.01 acres of street improvements. Proposed improvements would span the entire 0.23-mile length of the roadway and would include widening Fournier Road to two 12-foot travel lanes and construction of a sidewalk, curb and gutter, detention basin, and a bridge, as well as on-street parking adjacent to the cemetery. The proposed project would also include grading, right-of-way dedication, and relocation of utilities, including water, sewer, storm drain, fiber optic, and electrical facilities. The cemetery driveway would be realigned to address safety concerns near the intersection of Fournier Road and Joe Howard Street. A total of 36 trees would be removed. To accommodate roadway widening and the construction of a sidewalk along the southeast side of Fournier Road, fill-slope conform grading would be required throughout most of the project length. The roadway widening would require additional right-of-way dedication from the cemetery. The proposed detention basin would accommodate increased runoff from new impervious surfaces created by the roadway widening.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.49177985,-119.97673974415599,14z



Counties: Mariposa County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Fisher *Pekania pennanti*	Endangered

Population: SSN DPS
There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3651
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus*	Endangered

Population: Wherever found, except where listed as an experimental population
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/8193
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata*	Proposed Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1111
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

Foothill Yellow-legged Frog *Rana boylii*	Endangered

Population: South Sierra Distinct Population Segment (South Sierra DPS)
There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/5133
General project design guidelines:

NAME	STATUS

https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/775VY2SQM5H4DEK2ZXYDKNKYCA/documents/generated/11271.pdf	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Mariposa Pussypaws *Calyptridium pulchellum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2695	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Juliet Simpson
Address:	2999 Oak Road
Address Line 2:	Suite 250
City:	Walnut Creek
State:	CA
Zip:	94597
Email	jsimpson@fcs-intl.com
Phone:	8888265814

Appendix B–CNDDB Database Query

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Mariposa (3711948) OR Feliciana Mtn. (3711958) OR Buckingham Mtn. (3711957) OR Horsecamp Mountain (3711937) OR Ben Hur (3711938) OR Stumpfield Mtn. (3711947) OR Illinois Hill (3712031) OR Catheys Valley (3712041) OR Bear Valley (3712051))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Allium yosemitense Yosemite onion	PMLIL022L0	None	Rare	G3	S3	1B.3
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Calochortus clavatus var. avius Pleasant Valley mariposa-lily	PMLIL0D095	None	None	G4T2T3	S2S3	1B.2
Calyptridium pulchellum Mariposa pussypaws	PDPOR09060	Threatened	None	G1	S1	1B.1
Camissonia lacustris grassland suncup	PDONA030W0	None	None	G2	S2	1B.2
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Clarkia biloba ssp. australis Mariposa clarkia	PDONA05051	None	None	G4G5T3	S3	1B.2
Clarkia rostrata beaked clarkia	PDONA050Y0	None	None	G2G3	S2S3	1B.3
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Cryptantha mariposae Mariposa cryptantha	PDBOR0A1Q0	None	None	G2G3	S2S3	1B.3
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Desmona bethula amphibious caddisfly	IITRI77010	None	None	G2G3	S2S3	
Diplacus pulchellus yellow-lip pansy monkeyflower	PDSCR1B280	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Entosthodon kochii Koch's cord moss	NBMUS2P050	None	None	G1	S1S2	1B.3
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erigeron mariposanus Mariposa daisy	PDAST3M5L0	None	None	GX	SX	1A
Eriophyllum congdonii Congdon's woolly sunflower	PDAST3N030	None	Rare	G2	S2	1B.2
Erythranthe filicaulis slender-stemmed monkeyflower	PDPHR012H0	None	None	G2	S2	1B.2
Erythranthe gracilipes slender-stalked monkeyflower	PDSCR1B1C0	None	None	G2	S2	1B.2
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydromantes brunus limestone salamander	AAAAD09010	None	Threatened	G2G3	S2S3	FP
Hydroporus leechi Leech's skyline diving beetle	IICOL55040	None	None	G3	S2S3	
Leptosiphon serrulatus Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
Lomatium congdonii Congdon's lomatium	PDAPI1B0B0	None	None	G2	S2	1B.2
Lupinus citrinus var. deflexus Mariposa lupine	PDFAB2B102	None	Threatened	G2T1T2	S1	1B.2
Lupinus spectabilis shaggyhair lupine	PDFAB2B3P0	None	None	G2	S2	1B.2
Monadenia yosemitensis Yosemite sideband	IMGASZ3010	None	None	G1	S1S2	
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Philotiella speciosa bohartorum Boharts' blue butterfly	IILEPG3011	None	None	G3T1	S1	
Rana boylii pop. 5 foothill yellow-legged frog - south Sierra DPS	AAABH01055	Endangered	Endangered	G3T2	S2	
Rana sierrae Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G2	S2	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC

Record Count: 40

Appendix C–CNPS Database Query

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

39 matches found. Click on scientific name for details

Search Criteria: , CRPR is one of [1A:1B:2A:2B:3:4] , 9-Quad include [3711958:3711957:3711948:3711937:3711938:3711947:3712031:3712041:3712051]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Allium sanbornii var. *congdonii*	Congdon's onion	Alliaceae	None	None	G3T3	S3	4.3
Allium yosemitense	Yosemite onion	Alliaceae	None	CR	G3	S3	1B.3
Amsinckia furcata	forked fiddleneck	Boraginaceae	None	None	G4	S4	4.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	None	None	G2	S2	1B.2
Calochortus clavatus var. *avius*	Pleasant Valley mariposa-lily	Liliaceae	None	None	G4T2T3	S2S3	1B.2
Calyptridium pulchellum	Mariposa pussypaws	Montiaceae	FT	None	G1	S1	1B.1
Camissonia lacustris	grassland suncup	Onagraceae	None	None	G2	S2	1B.2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	None	None	G4	S4	4.3
Clarkia biloba ssp. *australis*	Mariposa clarkia	Onagraceae	None	None	G4G5T3	S3	1B.2

Clarkia rostrata	beaked clarkia	Onagraceae	None	None	G2G3	S2S3	1B.3
Clarkia virgata	Sierra clarkia	Onagraceae	None	None	G3	S3	4.3
Cryptantha mariposae	Mariposa cryptantha	Boraginaceae	None	None	G2G3	S2S3	1B.3
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	None	None	G4G5	S4	4.2
Delphinium hansenii ssp. *ewanianum*	Ewan's larkspur	Ranunculaceae	None	None	G4T3	S3	4.2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	None	None	G2?	S2	1B.2
Diplacus pulchellus	yellow-lip pansy monkeyflower	Phrymaceae	None	None	G2	S2	1B.2
Entosthodon kochii	Koch's cord moss	Funariaceae	None	None	G1	S1S2	1B.3
Erigeron mariposanus	Mariposa daisy	Asteraceae	None	None	GX	SX	1A
Eriogonum tripodum	tripod buckwheat	Polygonaceae	None	None	G4	S4	4.2
Eriophyllum confertiflorum var. *tanacetiflorum*	tansy-flowered woolly sunflower	Asteraceae	None	None	G5T2?Q	S2?	4.3
Eriophyllum congdonii	Congdon's woolly sunflower	Asteraceae	None	CR	G2	S2	1B.2
Erythranthe acutidens	Kings River monkeyflower	Phrymaceae	None	None	G2G3	S2S3	3
Erythranthe filicaulis	slender-stemmed monkeyflower	Phrymaceae	None	None	G2	S2	1B.2
Erythranthe gracilipes	slender-stalked monkeyflower	Phrymaceae	None	None	G2	S2	1B.2

Erythranthe grayi	Gray's monkeyflower	Phrymaceae	None	None	G2G3Q	S2S3	4.3
Erythranthe inconspicua	small-flowered monkeyflower	Phrymaceae	None	None	G4	S4	4.3
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	None	None	G4T3	S3	4.3
Hesperevax caulescens	hogwallow starfish	Asteraceae	None	None	G3	S3	4.2
Horkelia parryi	Parry's horkelia	Rosaceae	None	None	G2	S2	1B.2
Jensia yosemitana	Yosemite tarplant	Asteraceae	None	None	G3	S3	3.2
Jepsonia heterandra	foothill jepsonia	Saxifragaceae	None	None	G3	S3	4.3
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	None	None	G3	S3	1B.2
Lomatium congdonii	Congdon's lomatium	Apiaceae	None	None	G2	S2	1B.2
Lupinus citrinus var. *deflexus*	Mariposa lupine	Fabaceae	None	CT	G2T1T2	S1	1B.2
Lupinus spectabilis	shaggyhair lupine	Fabaceae	None	None	G2	S2	1B.2
Mielichhoferia elongata	elongate copper moss	Mielichhoferiaceae	None	None	G5	S3S4	4.3
Perideridia bacigalupii	Bacigalupi's yampah	Apiaceae	None	None	G3	S3	4.2
Selaginella asprella	bluish spike-moss	Selaginellaceae	None	None	G4	S4	4.3
Wyethia elata	Hall's wyethia	Asteraceae	None	None	G4	S4	4.3

Showing 1 to 39 of 39 entries

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Suggested Citation:
California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 26 January 2026].
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Appendix D–Biologist Qualifications

Juliet Simpson, MS

Associate Biologist

OVERVIEW

More than 7 years of experience

EDUCATION

Master of Science, Biological Sciences, University of Northern Colorado, Greeley, CO, 2022

Bachelor of Science, Environmental Studies, Prescott College, Prescott, AZ, 2016

PERMIT

Plant Voucher Collecting Permit No. 2081(a)-25-116-V, California Department of Fish and Wildlife, 2025–2027

TRAINING AND CERTIFICATION

Certified Field Botanist No. 0098, California Native Plant Society, 2025

38-hour Army Corps of Engineers Wetlands Delineation Training Program, Certification No. 9541 and 3.8 CEUS, Richard Chinn Environmental Training, Inc., 2025

TECHNICAL EXPERTISE

Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS)

Specify 6

GEOLocate

Juliet Simpson, MS, is a Biologist with more than 7 years of relevant experience in conducting biological field surveys, including protocol-level surveys, jurisdictional delineation, and monitoring, for a variety of rare and sensitive plant and animal species. Her expertise includes data collection and analysis, implementation and monitoring, special-status species surveys, and plant specimen collections. She has extensive experience in conducting rare plant surveys; tree inventories; habitat assessments, restoration, and monitoring; wetland/jurisdictional delineations; and biological resources construction monitoring. She has substantial knowledge of the process and documentation involved in completing biological surveys, including, but not limited to, CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants, USFWS Santa Rosa Plain Conservation Strategy, San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, California Native Species Field Survey Forms, Combined Vegetation Rapid Assessment and Relevé Field Forms, Ordinary High Water Mark Data Sheets, and Wetland Data Forms.

Related Experience and Client Summary

- **Airport Village Rare Plant Survey Report and Biological Resource Assessment, Sonoma County, CA:** Ms. Simpson conducted a general biological survey and protocol-level rare plant surveys for plant species covered under the Santa Rosa Plain Conservation Strategy, including Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnanthes vinculans*), and many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*). She identified plant and wildlife species on the project site and mapped and completed Combined Vegetation Rapid Assessment and Relevé Field Forms for sensitive natural communities, including small fescue (*Festuca microstachys*) grassland, smooth goldfields (*Lasthenia glaberrima*)-annual semaphore grass (*Pleuropogon californicus* var. *californicus*) vernal pool bottom, and valley oak (*Quercus lobata*)-arroyo willow (*Salix lasiolepis*) riparian woodland. She prepared a rare plant survey report and a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to species and communities covered under the Santa Rosa Plain Conservation Strategy, including California Tiger Salamander (*Ambystoma californiense*), Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam, many-flowered navarretia, and vernal pools, and provided mitigation recommendations.

- **Calle de los Romos Project Burrowing Owl Surveys, Riverside County, CA:** Ms. Simpson participated in burrowing owl (*Athene cunicularia*) surveys on the project site. She assisted in identifying and mapping eight individuals and forty-three burrows within the project site and buffer.
- **Saddleback Butte State Park Desert Tortoise Surveys, Los Angeles County, CA:** Ms. Simpson participated in desert tortoise (*Gopherus agassizii*) surveys at Saddleback Butte State Park. The survey identified one burrow with current-year scat located adjacent, indicating use that year.
- **Elworthy Property Residential Project Aquatic Resources Jurisdictional Delineation, Burrowing Owl Surveys, and Biological Resources Assessment, Town of Danville, CA:** Ms. Simpson conducted a general biological survey and jurisdictional delineation survey. She additionally participated in burrowing owl (*Athene cunicularia*) surveys on the project site. She completed Ordinary High Water Mark Data Sheets and Wetland Data Forms and prepared a comprehensive jurisdictional delineation report, including suggestions on which areas of the project site fall under federal and State jurisdictions. She also prepared a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.
- **La Honda Road-San Pablo Dam Road Pavement Repair Project Jurisdictional Delineation and Natural Environmental Study Minimal Impacts, Contra Costa County, CA:** Ms. Simpson conducted a general biological survey and jurisdictional delineation survey. She completed Ordinary High Water Mark Data Sheets and Wetland Data Forms and prepared a comprehensive jurisdictional delineation report, including suggestions on which areas of the project site fall under federal and State jurisdictions. She also prepared a Natural Environmental Study Minimal Impact (NES-MI) that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.
- **Tracy Development Project Rare Plant Survey Report and Biological Resources Assessment, City of Rancho Cucamonga, CA:** Ms. Simpson conducted a general biological survey and comprehensive protocol-level surveys for several rare plant species, including Plummer's mariposa lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower (*Dodecahema leptoceras*), wedgeleaf horkelia (*Horkelia cuneata* var. *puberula*), Southern California black walnut (*Juglans californica*), and Coulter's Matilija poppy (*Romneya coulteri*). She identified, mapped, and completed the California Native Species Field Survey Form for a population of more than 1,500 Plummer's mariposa lilies found on-site; analyzed project impacts; and provided mitigation recommendations. She also identified, mapped, and completed Combined Vegetation Rapid Assessment and Relevé Field Form for the sensitive natural community of white sage (*Salvia apiana*)-California sagebrush (*Artemisia californica*)-rabbitbrush (*Ericameria spp*.) shrubland association on-site. In addition, Ms. Simpson prepared a rare plant survey report, including the analysis of project impacts on the Plummer's mariposa lily population and white sage-California sagebrush-rabbitbrush sensitive natural community, and suggested mitigation recommendations. She also prepared a biological resources assessment that described the plant and wildlife species and communities on site, analyzed project impacts to special-status species and sensitive natural communities, and provided mitigation recommendations.

Volunteer Experience

- **Big Chico Creek Ecological Reserve Amphibian Survey, Butte County, CA:** Ms. Simpson participated in an amphibian survey at Butte Chico Creek Ecological Reserve. She assisted in finding, identifying, and recording common amphibian species including chorus frog (*Pseudacris regilla*), Sierra newt (*Taricha sierrae*), and California slender salamander (*Batrachoseps attenuatus*), as well as six foothill yellow-legged frog – Feather River DPU individuals (*Rana boylii pop. 2*), a federally and state threatened species.
- **San Francisco Bay Area Bird Observatory Pacific Flyway Shorebird Survey, Alameda County, CA:** Ms. Simpson participated in the 2025 annual Pacific Flyway Shorebird Survey with the San Francisco Bay Area Bird Observatory. She assisted in identifying and counting all shorebirds and raptors present within designated salt ponds in Hayward Regional Shoreline.

Workshops

- **Amphibians of the San Francisco Bay Area Workshop, Sonoma County, CA:** Ms. Simpson attended the full day lecture that examined all common and special-status amphibians that occur in the greater San Francisco Bay Area. She also attended the half day field trip where she handled common species including yellow-eyed ensatina (*Ensatina eschscholtzii xanthoptica*), rough-skinned newt (*Taricha granulosa*), and California slender salamander (*Batrachoseps attenuatus*). She also handled five California giant salamanders (*Dicamptodon ensatus*), a CDFW Species of Special Concern, out of eight total found, including multiple young larval as well as one to two-year-old larval individuals, an actively metamorphosing individual, and a full adult individual.

Prior Work Experience

- **Oregon Bureau of Land Management, Butte Falls Field Office, City of Medford, OR:** As a Biological Science Technician, Ms. Simpson conducted surveys and monitored sensitive species, including Gentner's fritillary (*Fritillaria gentneri*), Parish's nightshade (*Solanum parishii*), California wild hollyhock (*Iliamna latibracteata*), clustered lady's slipper (*Cyprepidium fasciculatum*), Siskiyou mariposa lily (*Calochortus persistens*), chaparral checkerbloom (*Sidalcea hickmanii* ssp. *petraea*), and Baker's cypress (*Hesperocyparis bakeri*). She conducted comprehensive surveys for rare species in timber sale and fuel treatment areas and recorded occurrences in a regional database. She authored detailed site reports, managed the Seeds of Success (SOS) collections and prepared the district's SOS Annual Report, and generated and fulfilled seed mix prescriptions for district-wide restoration projects. In addition, Ms. Simpson served as a Contract Inspector for two field offices. She made significant contributions to the district herbarium by reviewing and updating specimens for taxonomic accuracy and creating a workflow for the herbarium inventory. She managed the inventory of the Medford Seed Repository and updated it with ecological data. She also completed daily mileage logs, monthly checks, and other maintenance for federal vehicles.
- **McGlaughlin Lab, University of Northern Colorado, Greeley, CO:** As a Graduate Research Assistant, Ms. Simpson monitored rare species across western Colorado for the Bureau of Land Management (BLM). She monitored and surveyed Kremmling milkvetch (*Astragalus osterhoutii*), mosquito range mustard (*Eutrema penlandii*), stemless beardtongue (*Penstemon acaulis*), Graham's beardtongue (*Penstemon grahamii*), Harrington's beardtongue (*Penstemon harringtonii*), Penland beardtongue (*Penstemon penlandii*), White River beardtongue (*Penstemon scariosus* var. *albifluvis*), Yampa beardtongue (*Penstemon yampaensis*), Dudley Bluffs bladderpod (*Physaria congesta*), Dudley Bluffs twinpod (*Physaria*

obcordata), Dawson's hookless cactus (*Sclerocactus dawsonii*), and Colorado hookless cactus (*Sclerocactus glaucus*). She maintained long-term demographic plots and helped establish new monitoring plots. Additionally, she identified plants in the field for various projects and worked in the herbarium to catalog specimens using Specify and georeferenced specimens without coordinates using GEOLocate. Ms. Simpson collected genetic material from rare and endangered plant species, prepared and analyzed DNA libraries, and used data to inform best management practices. She also planned and executed overnight field excursions spanning multiple states. Her work involved operating individually, as part of a team, and leading transect teams of BLM interns.

- **The Great Basin Institute, Spring Mountains National Recreation Area, Clark and Nye Counties, NV:** As a Botany Field Team Lead, Ms. Simpson led botany technicians in field surveys for biological projects. She conducted and monitored comprehensive surveys for rare and target species, including Rough Angelica (*Angelica scabrida*), King's rosy sandwort (*Arenaria kingii* ssp. *rosea*), Clokey's milkvetch (*Astragalus aequalis*), egg milkvetch (*Astragalus oophorus* var. *clokeyanus*), uncial fleabane (*Erigeron uncialis* ssp. *conjugans*), Clokey's buckwheat (*Eriogonum heermannii* var. *clokeyi*), Clokey's greasebush (*Glossopetalon clokeyi*), pungent glossopetalon (*Glossopetalon pungens*), Jaeger's mousetail (*Ivesia jeageri*), Charleston lousewort (*Pedicularis semibarbata* var. *charlestonensis*), Pinto beardtongue (*Penstemon bicolor* ssp. *roseus*), Jaeger's beardtongue (*Penstemon thompsoniae* ssp. *jaegeri*), purple sage (*Salvia dorrii* ssp. *dorrii* var. *clokeyi*), Jones' Townsend daisy (*Townsendia jonesii* var. *tumulosa*), and Charleston violet (*Viola charlestonensis*). She also conducted larval host and nectar plant surveys for various butterfly species, including the Callippe silverspot butterfly (*Speyeria callippe callippe*), monarch butterfly (*Danaus plexippus*), Nevada admiral butterfly (*Limenitis weidemeyerii nevadae*), Spring Mountains acastus checkerspot butterfly (*Chlosyne acastus robusta*), Spring Mountains Comma Skipper butterfly (*Hesperia comma*), Spring Mountains dark blue butterfly (*Euphilotes ancilla purpura*), and Spring Mountains Icarioides blue butterfly (*Plebejus icarioides austinorum*). She collected seeds and recorded data in accordance with the national SOS protocol, as well as analyzed, summarized, and displayed data in tables and maps using ArcGIS. She identified and added specimens to the US Forest Service (USFS) district herbarium and provided writing, summary tables, and ArcGIS-generated maps to internal and USFS project reports. She organized and helped lead a Boy Scout volunteer event, which focused on seed collection for SOS. Additionally, she maintained federal vehicles by completing daily mileage logs, monthly checks, and other routine maintenance tasks.
- **US Department of Agriculture Agricultural Research Service, Eastern Oregon Agricultural Research Center, Harvey and Malheur Counties, OR, and Elko County, NV:** As a Biological Science Technician, Ms. Simpson monitored short-term and long-term vegetation plots at post-fire sites, collected and processed vegetation, and recorded data for fuel moisture analysis. She conducted surveys of vegetation cover by species and functional groups for various studies in conservation biology and range management. She designed and successfully implemented a germination project for a restoration species, establishing a protocol for seed treatment in future growing projects. Ms. Simpson grew restoration species from seed and planted seedlings in remote project sites, as well as helped establish monitoring plots for new studies.

FCS



Robert Carroll

Senior Biologist

OVERVIEW

More than 16 years of experience

EDUCATION

Bachelor of Science, Fisheries Science, Concentration in Water Resources, Cum Laude, Oregon State University, Corvallis, OR, 2016

Bachelor of Arts, Marketing, College of Business Administration, Marquette University, Milwaukee, WI, 2007

LICENSES AND CERTIFICATIONS

Fairy Shrimp Identification Certification, 2017

Wetland Delineation Certification, 2018

AWARDS

Milt Guymon Endowment Scholar, 2015

Gerald L. Fisher Aquaculture and Hatchery Management Scholarship, 2015

PROFESSIONAL AFFILIATIONS AND VOLUNTEER WORK

Orange County Coastkeeper Beach Cleanup Team, 2013

Member, Marquette University Diversity Club, 2003–2005

Robert Carroll has more than 16 years of experience in environmental analysis, biological resources, and regulatory permitting. While working at the Oregon Department of Fish and Wildlife (ODFW), Mr. Carroll conducted spawning surveys of adult salmonids in numerous streams throughout the Willamette Valley. His experience at the ODFW also included spawning and rearing techniques at various ODFW run fish hatcheries for the dispersal of steelhead in lakes and rivers throughout the Corvallis watershed. Mr. Carroll also contributed to ODFW's preliminary study to document fish diversity throughout the Little Muddy Creek. As a Biologist and Regulatory Specialist, Mr. Carroll's expertise includes multi-agency regulatory permitting and compliance (NEPA, CEQA, and California and federal Endangered Species Acts), natural resource assessments, special-status flora and fauna species surveys, construction compliance monitoring, and wildlife habitat assessments. Mr. Carroll has extensive experience managing wetland delineation projects and performing regulatory permitting pursuant to the jurisdiction of the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), the US Army Corps of Engineers (USACE), and other local and regional agencies and organizations. He is well versed in the Clean Water Act (CWA) Sections 404 and 401 permitting and the CDFW Code 1602 permitting.

Related Experience and Client Summary

- **Tassajara Parks Project EIR, Contra Costa County, CA:** FCS prepared an EIR for this landmark project located outside the boundary of the existing urban limit line in Contra Costa County. The project site consists of two separate parcels: (1) a 155-acre northern site to be developed with 125 single-family residences, a walking trail, and trail staging area, and (2) a 616-acre southern site, the majority of which would be dedicated to the East Bay Regional Park District for permanent open space uses with two 5-acre parcels dedicated to the San Ramon Valley Unified School District and San Ramon Valley Fire Protection District. Mr. Carroll assisted in writing the Biological Resources section of the project EIR and providing responses to subsequent comments.
- **Scannell Properties Logistics Warehouse Project EIR, Contra Costa County, CA:** FCS prepared the EIR for the Scannell Properties Project in unincorporated Contra Costa County, in the North Richmond area. The applicant (Scannell Properties) proposes to build two warehouse fulfillment buildings totaling approximately 325,000 square feet on the 29.4-acre project site. The Contra Costa County General Plan designates the site as Heavy Industry (HI) and the site is located within the North Richmond P-1 Zoning District. The North Richmond community is disproportionately impacted by

air pollution. As a result, the project included construction best management practices, vehicle electrification and a transition to zero-emission fleet, and a Transportation Demand Management Plan to reduce emissions and improve air quality. Other areas of concern included GHG emissions, biological resources, cultural resources, and transportation. The Final EIR was unanimously approved by the County Planning Commission in September 2021. Mr. Carroll conducted the field survey, peer reviewed the applicant's supporting studies, and wrote the Biological Resources section of the EIR.

- **CenterPoint Properties Logistics Warehouse Project EIR, Contra Costa County, CA:** FCS prepared an EIR for the CenterPoint Properties Project located at 560 Brookside Drive in unincorporated Contra Costa County, near the Richmond city limits. The applicant (CenterPoint) is proposing to develop three warehouse buildings totaling 555,000 square feet on the 31.48-acre project site. Historically, the site was used as cut flower nurseries and farmland to grow row crops since the late 1920s. The Contra Costa County General Plan designates the site as Light Industry (LI) and Heavy Industry (HI) and the site is located within the Planned Unit District (P-1) Zoning District. Areas of concern included air quality and GHG emissions, biological resources, cultural resources, noise, and traffic. Mr. Carroll conducted the field survey, peer reviewed the applicant's supporting studies, and wrote the Biological Resources section of the EIR.
- **Oak Road Townhouse Condominiums Project EIR and Peer Review of Technical Studies, Contra Costa County, CA:** FCS prepared an EIR and peer reviewed technical studies for a proposed subdivision. The applicant (SummerHill Homes) is constructing 125 townhouse condominium units located in nineteen 3-story buildings and associated improvements on a 5.94-acre site in unincorporated Contra Costa County, adjacent to the City of Walnut Creek. The eight existing parcels are currently zoned Low- and Medium-density Single-family Residential (R-15), Medium- and High-density Multiple-family Residential (M-17), and High-density Multiple-family Residential (M-29). The project includes rezoning all eight parcels to Planned Unit District (P-1), a vesting tentative map to subdivide the parcels into 125 residential lots, and approval of a preliminary and final development plan. The Board of Supervisors approved the project on March 1, 2022. Mr. Carroll peer reviewed the applicant's BRA, provided comments to make the assessment CEQA-compliant, and used the applicant's analysis to author the Biological Resources section of the EIR.
- **Grayson Creek Outfalls Project, City of Pleasant Hill, CA:** As the CDFW-approved Monitor and Surveying Biologist (under Streambed Alteration Agreement [SAA] No. 1600-2019-0358-R3), Mr. Carroll conducted nesting bird and roosting bat surveys and construction monitoring. In addition, Mr. Carroll prepared the California red-legged frog (CRLF) (*Rana draytonii*) Habitat Assessment following the guidelines found in the Revise Guidance on Site Assessments and Field Surveys for the CRLF issued by the USFWS.
- **Oak Park Properties Specific Plan EIR, City of Pleasant Hill, CA:** FCS prepared an EIR for a 15-acre plan area which includes a new public library, housing, and athletic fields. The plan area is located entirely within the City of Pleasant Hill on land owned by Contra Costa County and the Mount Diablo Unified School District. The project also included necessary infrastructure improvements such as roadway widening, lane configuration improvements, and signal upgrades; new curb and gutter, sidewalks, and ADA facilities; and drainage, utilities (including a possible sewer line removal), lighting, and landscape improvements throughout the plan area. FCS worked with the property sponsors and stakeholders to clearly define the project. FCS also identified mitigation and prepared all regulatory permit applications, including a 404 permit from the USACE, Streambed Alteration Agreement with the CDFW, and 401 water quality certification from the RWQCB. Mr. Carroll prepared the Biological Impact Analysis for the EIR, jurisdictional delineation, and California red-legged frog (CRLF) (*Rana draytonii*) habitat assessment, with

appropriate levels of analysis for the both programmatic- and project-level components. Additionally, Mr. Carroll prepared the required regulatory permits from the USACE, RWQCB, and CDFW.

- **CarMax Project Biological Construction Monitoring and Memorandum, City of Pleasant Hill, CA:** Mr. Carroll confirmed the presence of one active red-shouldered hawk (*Buteo lineatus*) nest on the project site during construction activities. Subsequently, Mr. Carroll assisted in the determination of protection buffers and coordination with the project team regarding compliance with bird nests protection measures.
- **Terraces of Lafayette EIR Addendum, City of Lafayette, CA:** FCS prepared a comprehensive addendum to the Terraces of Lafayette EIR to update the air quality, biological resources, noise, and transportation sections of the initial EIR from 2013. The Terraces of Lafayette Project consists of 315 apartments allocated among 14 buildings, along with a club house, leasing office, and parking. Mr. Carroll prepared the Biological Resources Assessment (BRA).
- **Chang Property Development IS/MND, Technical Studies, Planning, and Local Agency Formation Commission (LAFCO) Application Services, City of San Ramon, CA:** FCS prepared LAFCO application materials, IS/MND, and associated technical studies (Air Quality and GHG Emissions Analysis, BRA, Cultural Resources Assessment [CRA], Noise Analysis, and Transportation Analysis) for a proposed 43-lot subdivision on a 195-acre project site in the City of San Ramon. Mr. Carroll prepared the BRA.
- **Blue Wave Car Wash Project IS/MND and Technical Studies, City of Pittsburg, CA:** FCS prepared the IS/MND and supporting technical studies for the Blue Wave Car Wash Project in the City of Pittsburg, California. Bluewave Express Car Wash and CEI Engineering (applicant) proposed to develop a new stand-alone carwash and self-service vacuum facility on a 1.36-acre site. The project would include 26 parking spaces and a 100-foot drive-thru vehicle wash tunnel; three 12.5-foot drive-thru pay lanes; three drive-thru payment stations; 22 vacuum stalls; and paved driveways. As an approved biologist under the East Contra Costa County Habitat Conservancy (Conservancy), Mr. Carroll prepared the Planning Survey Report Application in relation to compliance with the Conservancy.
- **Pittsburg Health Center Parking Lot Improvement Project, City of Pittsburg, CA:** As an approved biologist under the Conservancy, Mr. Carroll completed nesting bird surveys for this project. The survey was conducted in relation to an on-call general biological services contract with Contra Costa County in relation to compliance with the Conservancy.
- **Liberty Subdivision II Project Substantial Conformance Memorandum Services, City of Pittsburg, CA:** As an approved biologist under the Conservancy, Mr. Carroll prepared the Planning Survey Report Application in relation to compliance with the Conservancy. Additionally, Mr. Carroll contributed the Conformance Evaluation required under CEQA.
- **The Ranch Project Recirculated EIR, City of Antioch, CA:** FCS prepared an EIR for the redesigned Ranch Residential Project in the City of Antioch. The Ranch is a master planned residential community that would include up to 1,177 single-family residential dwellings, 5 acres of retail, and a future fire station. The project would include protection of approximately 242 acres for parks, open space, and trails. As the Project Biologist, Mr. Carroll peer reviewed multiple biological reports from external consulting firms for the project site and off-site areas, coordinated with the City and biologists at those firms on findings, and finalized the Biological Resources section of the EIR.
- **Willow Avenue Commercial Center Project IS/MND, City of Hercules, CA:** FCS prepared an IS/MND for the proposed Willow Avenue Commercial Center, which proposes to construct up to 156,627 square feet of self-storage and service commercial uses in the City of Hercules, California. The storage facility would include four buildings totaling 128,627 square feet and the service commercial uses would include

four buildings totaling 28,000 square feet. Mr. Carroll also provided construction monitoring and Workers Environmental Awareness Training and helped obtain all necessary biological permits.

- **Marina Way Residential Project Wetland Delineation, City of Richmond, CA:** FCS prepared a Wetland Delineation for the Marina Way Residential Project located south of the intersection of Marina Way South and Hall Avenue, near the southern terminus of Marina Way in the City of Richmond. Mr. Carroll prepared the Wetland Delineation.
- **Powerplant Agricultural Development Project Focused EIR and MND, City of Richmond, CA:** FCS prepared an IS/MND for the 11-acre project in the City of Richmond. The applicant proposed to develop 180,900 square feet of agricultural development in several phases for the purposes of marijuana cultivation. As the Staff Biologist, Mr. Carroll prepared the Biological Impact Analysis for the IS/MND, with appropriate levels of analysis for project-level components.
- **Cypress Self-storage Project Biological Assessment, City of Oakley, CA:** FCS prepared a biological assessment for the Cypress Self-storage Project, which proposes to construct a Self-storage Facility and leasing office with related sales and rental facilities. The storage facility would consist of two 3-story buildings totaling up to 139,408 square feet plus a 1,024-square-foot office building with five parking stalls. FCS's biologists conducted pre-construction surveys for Swainson's hawk, golden eagle (*Aquila chrysaetos*), western BUOW, and Townsend's big-eared bat (*Corynorhinus townsendii*), as well as species protected by the Migratory Bird Treaty Act (MBTA) (16 USC 707) and the California Fish and Game Code (FGC) (Section 3503). Mr. Carroll prepared the Planning Survey Report in compliance with the Conservancy.
- **Silvergate Apartment Development Project Biological Pre-construction Survey, City of Brentwood, CA:** As an approved biologist under the Conservancy, Mr. Carroll assisted in the preparation of the Planning Survey Report Application.

  John Muir Parkway Extension Project IS/MND and Preliminary Environmental Study for NEPA Clearance, City of Brentwood, CA: FCS prepared an IS/MND in 2007 to clear the relocation of Concord Avenue as John Muir Parkway extension. In 2010, FCS assisted the City of Brentwood by facilitating Contra Costa Transportation Authority's recognition of federal funding that was earmarked in the 2007 Omnibus Transportation Act for the relocation. Once funding was programmed in the regional Transportation Improvement Program, FCS prepared a Preliminary Environmental Study (PES) package through the Caltrans Office of Local Assistance to access the federal funding for the project. A second PES package was prepared and submitted in 2014, including a Natural Environment Study, Wetland Delineation, Cultural Resources Area of Potential Effect Map, Historical Property Survey Report, Archaeological Survey Report, Hazardous Materials Memorandum, and Categorical Exclusion Checklist and Form. Mr. Carroll assisted the City in obtaining necessary updates to biological permits, including CWA Sections 404 and 401 permits and an SAA. Mr. Carroll also provided construction monitoring and Workers Environmental Awareness Training.
- **Volpone-Silver Gate Condominium Community Project Burrowing Owl (BUOW) (*Athene cunicularia*) and Nesting Birds Pre-construction Survey, City of Brentwood, CA:** In accordance with the requirements of the Conservancy, Mr. Carroll assisted in a pre-construction survey for BUOW and nesting birds for the development of a 166-unit condominium community.
- **Alameda Federal Center Reuse NEPA Documentation, City of Alameda, CA:** FCS prepared a NEPA EA for the 3.65-acre property on McKay Avenue in Alameda. The proposed action included the reuse and renovation of four buildings for senior housing; the demolition and replacement of one building with a small

primary care clinic; and the demolition of six accessory structures, as well as reducing paved surfaces and creating new open space areas. Mr. Carroll authored the Biological Resources section of the EA.

- **William J. Payne Sports Park Renovation Project IS/MND, City of Livermore, CA:** FCS prepared an IS/MND for a 14-acre park located 5800 Patterson Pass Road in the City of Livermore, Alameda County, California. Mr. Carroll conducted the field work and authored the Biological Resources section of the IS/MND.
- **Spotorno Ranch Project Subsequent EIR, City of Pleasanton, CA:** FCS prepared an EIR, technical studies/analyses, and related documents for a 39-lot residential subdivision in the Happy Valley area of Pleasanton. Mr. Carroll prepared the Biological Impact Analysis for the EIR, with appropriate levels of analysis for project-level components.
- **Fairgrounds Channel Drainage Project Regulatory Permitting and Restoration, Solano County, CA:** Mr. Carroll prepared a BRA, and in coordination with subconsultants, prepared a Habitat Assessment in accordance with the Revised Guidance on Site Assessments and Field Surveys for the CRLF, rare plant surveys, and a compensatory mitigation plan for the Fairgrounds Channel Drainage Project. The project is currently seeking regulatory permits from the USACE, San Francico Bay RWQCB, and CDFW.
- **Library/Learning Resource Center Building Project Biological and Cultural Construction Monitoring Services, Solano Community College District, Fairfield, CA:** FCS prepared the IS/MND and provided the subsequent biological construction monitoring services for the construction of a new 59,252-gross-square-foot, 2-story Library/Learning Resources Center building on the Fairfield Campus of the Solano Community College. Mr. Carroll conducted multiple pre-construction surveys and wrote a subsequent memorandum for roosting bats for environmental compliance under CEQA.
- **Suisun Commerce and Logistics Center Project EIR, City of Suisun City, CA:** FCS expedited the preparation of an EIR with technical studies/analysis and related documents for the proposed development of light industrial, commercial, and open space uses on a 353-acre site that is currently used for grazing. Total buildout would consist of up to 3.9 million square feet. The project site is located in unincorporated Solano County, immediately adjacent to the Suisun city limits and is less than 1 mile from Travis Air Force Base. Mr. Carroll peer reviewed multiple supporting biological documents and authored the Biological Resources Section of the EIR.
- **Mariner's Cove Wetland Fill Project Biologist and Biological Monitoring Services, City of Vallejo, CA:** FCS provided biological monitoring services to the City of Vallejo's Public Works Department for the Mariner's Cove Wetland Fill Project. The goal was to fill former tidal marsh areas that are now cut off from natural tidal influence. However, the area supports pickleweed (*Salicornia pacifica*) habitat, which is potentially suitable for the federal and State endangered salt marsh harvest mouse (SMHM) (*Reithrodontomys raviventris*). For the vegetation removal process, FCS provided biological monitoring services, including review of permit documents, coordination with the contractor, coordination with CDFW, monitoring on-site during vegetation removal, and reporting according to permit conditions. This project required biological monitors to be approved in advance by the CDFW for this specific species and habitat. FCS acquired CDFW approval within one day and was able to provide a pool of five approved biological monitors. Mr. Carroll was a CDFW-approved Monitor for the project. Mr. Carroll prepared and conducted a Workers Environmental Awareness Program (WEAP) for construction personnel prior to the start of vegetation removal. He also distributed an SMHM factsheet handout to all personnel as required per the City's SAA. Additionally, Mr. Carroll surveyed and monitored for protected species for all work done within 300 feet of tidal or pickleweed habitats.

- **619–625 California Drive IS/MND Project, City of Burlingame, CA:** FCS prepared an IS/MND for a new 4-story, 26-unit live/work development with at-grade parking at 619–625 California Drive in the City of Burlingame, California, located in the C-2, North California Drive Commercial District and within the DTSP. Mr. Carroll performed the reconnaissance-level biological assessment and prepared the Biological Impact Analysis for the IS/MND.
- **Highway 1/North Main Street—Spindrift Way IS/MND and Technical Studies, City of Half Moon Bay, CA:** The segment of Highway 1 between North Main Street and Spindrift Way carries approximately 30,000 vehicles per day (based on Caltrans 2015 traffic counts) and is the most traveled portion of the Cabrillo Highway between Pacifica and Santa Cruz. Between North Main Street and Grand Boulevard, the roadway is a four-lane divided highway. Between Grand Boulevard and Spindrift Way, Highway 1 consists of a two-lane undivided roadway. A Class I bicycle/pedestrian trail exists along the west shoulder. In 2009, the City of Half Moon Bay adopted the Highway 1 Traffic Safety and Congestion Mitigation Plan to improve roadway and intersection operations along the Highway 1 corridor within Half Moon Bay. The improvements contemplated by the plan would be funded by the County's Measure A program. FCS prepared an IS/MND to evaluate the proposed safety improvements and visual enhancements along the Highway 1 corridor between North Main Street and Spindrift Way. Mr. Carroll assisted in the preparation of the BRA and Jurisdictional Delineation for the project.
- **Fire Station 77 Replacement IS/MND, Menlo Park Fire Protection District, City of Menlo Park, CA:** FCS prepared an IS/MND for a project that proposed to replace Fire Station 77 in the City of Menlo Park with a new 14,000-square-foot, 2-story fire station. To provide maximum planning flexibility to the Menlo Park Fire Protection District, the IS/MND evaluated three parking lot options along Terminal Avenue and an array of residential property acquisition options. FCS also prepared the Hazardous Material section, including recommendations for mitigation for the project. Preparation of this section of the IS/MND involved the review of various environmental databases for any current and/or historic records of releases to the environment. As the Project Biologist, Mr. Carroll conducted field work and assisted in a bat habitat assessment, which outlined methodology, findings, and necessary measures to avoid or otherwise minimize impacts to sensitive bat species.
- **Nueva School Hillsborough Pre-construction Nesting Migratory Bird and Bat Habitat Surveys, Town of Hillsborough, CA:** FCS conducted a focused nesting bird and bat habitat survey for the Nueva School Hillsborough Project. The project site consists of a school campus located in a largely urban and developed area that contains 162 existing trees with an abundance of trees in the surrounding vicinity. Mr. Carroll conducted a focused nesting bird and bat habitat survey for the project.
- **San Marin Business Park Expansion Regulatory Permitting Services, City of Novato, CA:** FCS provided peer review services for the jurisdictional delineation report on the 44.5-acre property in the City of Novato, California. In addition, FCS prepared applications for a CWA 404 permit and a CWA Section 401 Water Quality Certification. Mr. Carroll worked with the USACE and RWQCB to obtain regulatory permits.
- **Big Ranch Road Widening IS/MND, City of Napa, CA**: FCS prepared an IS/MND for the City of Napa Public Works Department's Big Ranch Road Project, which consisted of widening a 1,220-foot-long segment of Big Ranch Road between Trancas Street and the bridge over Salvador Creek to carry three lanes of vehicular traffic and a turning lane. Mr. Carroll prepared the Biological Impact Analysis for the IS/MND, with appropriate levels of analysis for project-level components.
- **Ritz-Carlton Napa Valley Resort Hotel Data Recovery of CA-NAP-928, City of Napa, CA:** FCS assisted the USACE with the data recovery of CA-NAP-928. FCS's Dana DePietro, PhD, RPA, as Principal

Investigator, implemented the Memorandum of Agreement and Historic Properties Treatment Plan for the Ritz-Carlton Napa Valley Resort Project, which was determined to have an adverse effect on the prehistoric site CA-NAP-928. Mr. Carroll managed and coordinated cultural resource monitoring efforts for more than 10 full-time cultural monitors. Mr. Carroll's duties included providing updated progress map; an overview of daily progress reports on burials, features, and unanticipated discoveries; onboarding new monitors; and invoicing.

- **Mount Madonna County Park Master Plan Environmental Constraints Analysis and IS/MND, Santa Clara County, CA:** FCS completed field surveys and prepared a biological and cultural resources constraints analysis to inform the location and design of master plan improvements to Mount Madonna County Park. As the Staff Biologist, Mr. Carroll prepared the biological constraints analysis for master plan improvements.
- **Conservation Center for Wildlife Care Project Environmental and Regulatory Permitting Services, Lawrence Ellison Foundation (LEF), Santa Clara County, CA:** FCS provided technical studies (cultural resources, biological resources, air quality, and noise) in support of the Lawrence Ellison Foundation (LEF) original application submittal in 2013, and reviewed provided comments on the County's 2014 EIR on behalf of LEF. Following the unanimous approval of the project, FCS provided biological, regulatory, project management, and entitlement processing services to support the proposed Conservation Center for Wildlife Care Project in Santa Clara County. LEF proposes to construct five buildings (Public Wildlife Intake Building/Pond Ecology Station, Wildlife Medical Facility and Education Building, Imperiled Species Breeding Facility, and two cottages) in the western portion of the project site and 50 wildlife enclosures scattered throughout the site. Mr. Carroll assisted in the compilation and submission of regulatory permits, provided a Worker's Environmental Awareness Training, and conducted multiple pre-construction surveys for nesting birds and roosting bats to ensure all biological mitigation measures were satisfied for CEQA compliance.
- **South Bascom Gateway Station Project IS/MND, City of San José, CA:** FCS prepared an IS/MND for the 6.4-acre mixed-use development project located at 1410 South Bascom Avenue Project in the City of San José. As the Project Biologist, Mr. Carroll provided biological services, including conducting fieldwork in support of the Initial Study and writing the Biological Resources section.
- **Cottle and Lester Historic Ranch Project IS/MND, City of San José, CA:** FCS led the preparation of an IS/MND and associated technical studies for the 256-acre Martial Cottle Park in south San José, California. The park was the subject of a Master Planning process by Santa Clara County Parks and Recreation that concluded in 2011. A 30.9-acre parcel known as the Life Estate is located adjacent to the Park to the southeast. The development of this parcel was not included in the 2011 EIR prepared for the Park Master Plan, although it was acknowledged that this site would eventually be added to the Park. FCS prepared an Air Quality and GHG Emissions Analysis, a BRA, a CRA, and a Noise Analysis. The project also included a Trip Generation Analysis prepared by our subconsultant. Mr. Carroll conducted the field work and assisted in writing the Biological Resources Assessment in support of the project IS/MND.
- **Masson Estates Residential Project EIR, City of Saratoga, CA:** FCS is preparing the EIR for the construction of 25 homes and related infrastructure. The proposed project is being processed pursuant to Senate Bill 330, the Housing Accountability Act, and the Builder's Remedy contained therein, and would construct 20 market-rate and five affordable, single-family homes. Mr. Carroll conducted the field work and assisted in writing the Biological Resources Assessment and Jurisdictional Delineation in support of the project EIR.

- **110 Dry Creek Regulatory Permitting Project, City of Healdsburg, CA:** FCS provided environmental planning, biological resources, and regulatory permitting services in support of the Healdsburg Suites Multi-use Project. FCS initially completed CEQA compliance work and prepared associated technical studies, including a BRA and jurisdictional delineation. CEQA compliance was achieved with the City of Healdsburg, and the entitlement process was successfully completed. Mr. Carroll helped author the BRA and IS/MND and obtain a Section 1602 SAA from CDFW. Additionally, Mr. Carroll was the Lead Monitor during construction for span bridge over Foss Creek and carried out annual botanical monitoring surveys required by the Section 1602 SAA.
- **Round Barn Village Project IS/MND, City of Santa Rosa, CA:** FCS prepared an IS/MND for the Round Barn Village Project in the City of Santa Rosa, California. The project consisted of a GPA and rezone for the future development of up to 270 residences. Mr. Carroll prepared the IS/MND, with appropriate levels of analysis for project-level components.
- **Silva Dairy Site Industrial Project BUOW Pre-construction Survey, City of Tracy, CA:** Mr. Carroll conducted pre-construction surveys for BUOW and other nesting birds for this project. The surveys were conducted for compliance with the San Joaquin County Multiple Species HCP.
- **Villages of Patterson Project BUOW Habitat Assessment, City of Patterson, CA:** Mr. Carroll conducted three surveys for BUOW and other nesting birds for this project. The surveys were conducted for compliance with the 2006 Villages of Patterson EIR.
- **Walnut Avenue Residential Project Indirect Source Review and Biological Surveys, City of Patterson, CA:** Mr. Carroll conducted required pre-construction surveys for BUOW and Swainson's hawk (*Buteo swainsoni*) protocol-level surveys for the proposed project.
- **Salado Creek Maintenance Project CDFW Regulatory Permit Application, City of Patterson, CA:** Mr. Carroll conducted a jurisdictional delineation and a BRA in support of obtaining a Section 1602 Lake and SAA for routine maintenance work in Salado Creek.
- **Turlock Project Warehouse Consistency Checklist and Technical Studies, City of Turlock, CA:** FCS prepared a Consistency Checklist and Technical Studies for an e-commerce facility in the City of Turlock, California. Seefried Industrial Properties (project applicant) proposed to develop the Project Hornet e-commerce facility and related improvements on approximately 72.90 acres located within the 2,611-acre Westside Industrial Specific Plan (WISP) area. The WISP EIR was certified on November 14, 2006. General Plan EIR and General Plan were subsequently adopted on September 25, 2012. FCS prepared the Consistency Checklist to evaluate whether the previous environmental analysis in the certified WISP EIR and General Plan EIR adequately addressed the potential environmental effects of the proposed project or if supplemental or subsequent environmental review is warranted pursuant to the requirements of CEQA. In support of the Consistency Checklist, FCS prepared analysis for air quality/GHG emissions, energy, biological resources, cultural resources, and noise. The Consistency Checklist was approved on July 13, 2020, and the project was completed constructed in 2021. Mr. Carroll conducted Swainson's hawk (*Buteo swainsoni*) protocol-level surveys, nesting detection surveys, and active bird nest status determination surveys, for a total of more than 100 survey hours. Over the course of the project, 16 active bird nests were detected and monitored. Mr. Carroll assisted in the determination of protection buffers and coordination with the project team regarding compliance with bird nests protection measures.
- **Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek) Caltrans NEPA/CEQA Documentation and Permitting, Calaveras County, CA:** FCS assisted Calaveras County with Caltrans NEPA/CEQA documentation and the completion of regulatory permit

applications for the replacement of three structurally deficient bridges and associated improvements to Dogtown Road. As a Staff Biologist for the project, Mr. Carroll assisted in preparing the required regulatory permit application packages for the three bridge replacements. These packages included a CWA Section 404 NWP, CWA Section 401 Water Quality Certification, and a Section 1602 SAA.

- **El Dorado Materials Recovery Facility (MRF) Remodeling Project IS/MND, El Dorado County, CA:** FCS prepared an IS/MND for proposed renovations at the El Dorado MRF located west of the City of Placerville, in unincorporated El Dorado County. Mr. Carroll authored the biological resources section of the MND and conducted the pre-construction nesting bird survey.
- **Travers Creek Bridge Replacement Caltrans NEPA/CEQA Documentation and Permitting, Fresno County, CA:** Mr. Carroll prepared the CEQA IS/MND and the NEPA Categorical Exclusion and coordinated permitting through the USACE, the RWQCB, and the CDFW for the replacement of a structurally deficient bridge.
- **Fresno Warehouse Project IS/MND, City of Fresno, CA:** FCS prepared an IS/MND and supporting technical studies for a 43.59-gross-acre warehouse project in the City of Fresno, California. The project includes the construction of a 184,000-square-foot delivery station building, which would include an approximately 161,300-square-foot warehouse, 22,000-square-foot office space, 17 dock-high doors, and 18 grade-level doors. Mr. Carroll conducted Swainson's hawk protocol-level surveys, nesting detection surveys, and active bird nest status determination surveys, for a total of more than 40 survey hours. Over the course of the project, one active bird nest was detected and monitored. Mr. Carroll assisted in the coordination with the project team regarding compliance with bird nests protection measures.
- **Veterans Boulevard Grade Separation Phase 1 and Phase 2 Pre-construction Surveys, City of Fresno, CA:** Mr. Carroll conducted two Pre-construction Surveys in accordance with the EIR and CEQA requirements to support Phase 1 and Phase 2 construction of the Veterans Boulevard Grade Separation Project in the City of Fresno.
- **Cotati Reverb Hotel and Amphitheater Project IS/MND and Technical Studies, City of Cotati, CA:** FCS prepared an IS/MND and associated technical studies for the Cotati Reverb Hotel and Amphitheater Project, which proposed to demolish an existing park-and-ride surface parking area and paved surfaces and construct a hotel and amphitheater near the US 101/SR 116 interchange in the City of Cotati, California. FCS also delineated potential jurisdictional wetlands on the project site in accordance with methodologies within the USACE Wetland Delineation Manual and Arid West Regional Supplement. Mr. Carroll prepared the Wetland Delineation and the IS/MND. Additionally, Mr. Carroll obtained regulatory permits from the USACE and RWQCB.
- **Biological, Archaeological, and Paleontological Monitoring and Reporting Services for the Los Angeles Regional Interoperable Communications System, Los Angeles County, CA:** FCS provided monitoring and reporting services during the construction of more than 150 Land Mobile Radio facilities at sites located primarily in Los Angeles County. As a Staff Biologist, Mr. Carroll performed on-site construction monitoring for the installation of antenna support structures. He ensured all application mitigation measures were followed and the project remained in compliance at all times. His monitoring duties included various plant and wildlife species with the potential to occur on the project site, such as California Condor (*Gymnogyps californianus*), other raptors and nesting birds, and native vegetation protection.

Other FCS Projects

- Foundry Foodhall Technical Studies, City of Walnut Creek, CA

- Quarry Residential Project Nesting Bird Survey, City of Richmond, CA
- Mission and Mattox Project Addendum, City of Hayward, CA
- Chick-fil-A BRA, City of Livermore, CA
- Chick-fil-A BRA Update, City of Livermore, CA
- 124 and 128 Brown Street Biological Resources Due Diligence Memorandum, Solano County, CA
- 384 Fairgrounds Drive Self-storage Project Wetlands Assessment, City of Vallejo, CA
- Topgolf Facility at Burlingame Golf Center BRA, City of Burlingame, CA
- 1509 El Camino Real Project Regulatory Permitting and Engineering Design, City of Burlingame, CA
- Senior Living Facility BRA and Phase I Environmental Site Assessment, City of Novato, CA
- Washington Street Sewer Trunk Line Biological Services, City of Calistoga, CA
- Devlin Road Construction and Demolition Debris Facility Initial Study/Addendum and Technical Studies, Napa County, CA
- Jackson Family Winery The Inn Project Wetland Assessment, City of Napa, CA
- General Plan Redesignation and Zoning Ordinance EIR Amendment, City of Napa, CA
- St. Helena Winery and Farmworker Housing Project Biological Study, City of St. Helena, CA
- Bremer Winery Biological Site Visit, Memorandum, and Hearing Attendance, City of St. Helena, CA
- 2755 El Camino Real Apartment Project Nesting Bird Survey and Avoidance, City of Palo Alto, CA
- Cherry Creek Village Apartments Technical Studies, City of Cloverdale, CA
- Todd Road Project IS/MND and Technical Studies, City of Santa Rosa, CA
- Revel Windsor Senior Housing Community IS/MND, Town of Windsor, CA
- Mill Creek Project Biological Resources Regulatory Permitting, Town of Windsor, CA
- Project Lefty Biological Clearance Survey Report, City of Bakersfield, CA
- 3443 E. Chevy Chase Drive Property Project Biological Resources Assistance, City of Glendale, CA
- 1005 West Hillcrest Boulevard Biological Services Update, City of Monrovia, CA
- Copart Palmdale Online Car Auction Facility IS/MND and Technical Studies, City of Palmdale, CA
- Lincoln Avenue Assemblage Mixed-use Project Due Diligence, City of Anaheim, CA
- Assisted Living and Memory Care Facility Project BRA, City of Rancho Cucamonga, CA
- Redlands Residential Project Biological and Cultural Due Diligence, City of Redlands, CA
- Menifee Bradley and Holland Road Residential Project IS/MND and Technical Studies, City of Menifee, CA
- Brodiaea Avenue and Quincy Street Residential Project Regulatory Permitting, City of Moreno Valley, CA
- Verizon Shannon Lane Project Biological Services, City of Murrieta, CA
- Walnut and Indian Avenue Warehouse Due Diligence Services, City of Perris, CA

Prior Work Experience

- **Orange County Coastkeepers, City of Costa Mesa, CA:** Mr. Carroll served as an Intern from January to September 2013. As an Intern, he contributed to the 2012 annual report for the Orange County Marine Protected Area Watch Program by analyzing data from the seven marine protected areas throughout

Orange County. The annual report aims to measure human usage in marine protected areas and its subsequent effect on these marine habitats. Mr. Carroll also contributed to various ongoing projects, such as the native oyster restoration project in Alamitos Bay, Newport Bay copper level monitoring, and scrap yard water quality monitoring.

- **ODFW, City of Corvallis, OR:** As an Experimental Biological Aide from October 2014 to June 2015, Mr. Carroll worked directly under the District Fish Biologist. He conducted ground surveys of adult salmonids, captured fish using different types of fishing gear, entered data from surveys, and created a database of scientific studies on the effects of hatchery-raised salmonids on wild population stocks. Mr. Carroll assisted in spawning techniques of male and female rainbow trout (*Oncorhynchus mykiss*) and recorded and maintained data on fish mortalities, water quality, and feed allotments.
- **Oregon State University, Langdon Lab, Hatfield Marine Science Center, City of Newport, OR:** Mr. Carroll was a Research Assistant at the Hatfield Marine Science Center from July to September 2015. As a Research Assistant, he conducted research on the phenotypic response of the Pacific oyster to ocean acidification and associated genetic selection pressures. He utilized R Studio to investigate the effects of ocean acidification on the growth and development rate in larval oysters.
- **US Peace Corps, Philippines:** Mr. Carroll was a Coastal Resource Management Extension Worker with the US Peace Corps in the Philippines from August 2010 to December 2012. As a Coastal Resource Management Extension Worker, Mr. Carroll wrote and managed two US Agency for International Development (USAID) grants and one Philippine grant totaling more than $8,000. One USAID grant funded the implementation of the first marine sanctuary, environmental education activities, and public awareness strategies related to marine ecosystem management in the Municipality of Buenavista, located in the island province of Guimaras. Another USAID grant funded two 3-day overnight environmental camps for 130 high school students with an emphasis on solid waste management and marine protected areas. The Philippine grant funded the development of a new municipal coastal resource management plan and the implementation of rural fishing community needs assessments. Additionally, Mr. Carroll conducted biophysical assessments in surrounding ecosystems and socioeconomic surveys in rural fishing communities for baseline data for a municipal-wide coastal resource management plan.

Appendix E–BSA Photographs



Photograph 1: Northwest corner of BSA facing west, showing Fournier Road and long-term staging area.



Photograph 2: Northwest corner of BSA facing south, showing Joe Howard Street and Mariposa Cemetery access road.



Photograph 3: Northwest corner of BSA facing southwest, showing Mariposa Cemetery.



Photograph 4: Center of BSA facing south, showing drainage, Fournier Road along the right, unnamed access road, and edge of Mariposa Cemetery.



Photograph 5: Center of BSA past junction of Fournier Road and unnamed access road facing southwest, showing drainage, unnamed access road, and Fournier Road on the right.



Photograph 6: Southwest section of BSA facing southwest, showing drainage with red willow tree and Himalayan blackberry patch, unnamed access road above on the left, and Fournier Road on the right.



Photograph 7: Southwest end of BSA facing south, showing Mariposa Creek flowing over Fournier Road, red willow riparian woodland, and Antone Road and residential development in the back.



Photograph 8: Southwest end of BSA facing south, showing Mariposa Creek flowing over Fournier Road.



Photograph 9: Southwest end of BSA facing west, showing upstream portion of Mariposa Creek.



Photograph 10: Southwest end of BSA facing east, showing downstream portion of Mariposa Creek.



Photograph 11: South corner of BSA facing north, showing Mariposa Creek and red willow riparian woodland.



Photograph 12: South corner of BSA facing west, showing Antone Road and Mariposa Creek.



Photograph 13: South corner of BSA facing south, showing Antone Road, residential development, and woodland in the distance.



Photograph 14: Southwest corner of BSA facing north, showing Mariposa Creek, red willow riparian woodland, and Fournier Road.



Photograph 15: Google Earth aerial imagery of BSA on June 23, 2024.



Photograph 16: Google Earth aerial imagery of Mariposa Creek at Fournier Road on June 23, 2024.

Appendix F–Species Compendium

Species Compendium

Scientific Name	Common Name	Status
WILDLIFE		
Birds		
Baeolophus inornatus	oak titmouse	native
Melanerpes formicivorus	acorn woodpecker	native
Pipilo maculatus	spotted towhee	native
PLANTS		
Ailanthus altissima	tree of heaven	Cal-IPC: M
Avena sp.	wild oat	Cal-IPC: M
Bromus diandrus	ripgut brome	Cal-IPC: M
Bromus hordeaceus	soft brome	Cal-IPC: L
Calocedrus decurrens	incense cedar	native
Ceanothus cuneatus	buck brush	native
Claytonia parviflora	streambank springbeauty	native
Claytonia perfoliata	miner's lettuce	native
Croton setiger	turkey-mullein	native
Cyperus eragrostis	tall flatsedge	native
Dactylis glomerata	orchard grass	Cal-IPC: L
Daucus pusillus	American wild carrot	native
Elymus caput-medusae	Medusa head	Cal-IPC: H
Erodium botrys	big heron bill	non-native
Eschscholzia sp.	poppy	native
Festuca perennis	Italian rye grass	Cal-IPC: M
Galium sp.	bedstraw	native
Geranium molle	crane's bill geranium	non-native
Grindelia camporum	Great Valley gumweed	native
Heteromeles arbutifolia	toyon	native
Hirschfeldia incana	short podded mustard	Cal-IPC: M
Holocarpha heermannii	Heermann's tarweed	native
Hypericum perforatum	common St. John’s wort	Cal-IPC: L
Marrubium vulgare	white horehound	Cal-IPC: L
Melilotus albus	white sweetclover	non-native

Scientific Name	Common Name	Status
Nemophila heterophylla	canyon nemophila	native
Pentagramma triangularis	gold back fern	native
Phoradendron leucarpum	American mistletoe	native
Pinus sabiniana	gray pine	native
Plantago lanceolata	English plantain	Cal-IPC: L
Polypogon monspeliensis	rabbitsfoot grass	Cal-IPC: L
Quercus douglasii	blue oak	native
Quercus wislizeni	interior live oak	native
Rubus armeniacus	Himalayan blackberry	Cal-IPC: H
Rubus ursinus	Pacific blackberry	native
Rumex conglomeratus	clustered dock	non-native
Rumex crispus	curly dock	Cal-IPC: L
Salix laevigata	red willow	native
Sanicula crassicaulis	Pacific sanicle	native
Silybum marianum	milk thistle	Cal-IPC: L
Stipa miliacea	smilo grass	non-native
Torilis arvensis	field hedge parsley	Cal-IPC: M
Typha latifolia	broadleaf cattail	native
Verbascum thapsus	woolly mullein	Cal-IPC: L
Veronica persica	bird's eye speedwell	non-native
Vicia villosa	hairy vetch	non-native
Vinca major	greater periwinkle	Cal-IPC: M
Xanthium strumarium	rough cockleburr	native