

APPENDIX B: Biological Resources Technical Report

Biological Resources Technical Report
Sutters Landing Park ADA River Access Trail
Project

Sacramento County, California



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List of Abbreviations

°F	Fahrenheit
ADA	Americans with Disabilities Act
BMPs	Best Management Practices
BSA	Biological Study Area
Cal-IPC	California Invasive Plant Council
CCV	California Central Valley
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFG	California Fish and Game
CFR	Code of Federal Regulations
City	City of Sacramento Department of Youth, Parks, and Community Engagement
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CVFPB	Central Valley Flood Protection Board
CVSR	Central Valley Spring Run
CWA	Clean Water Act
DBH	Diameter at Breast Height
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
EO	Executive Order
EPA	Environmental Protection Agency
ESU	Evolutionary Significant Unit
FESA	Federal Endangered Species Act
FR	Federal Register
IPaC	Information for Planning and Consultation
LID	Low Impact Development
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resource Conservation Service
NWPT	Northwestern Pond Turtle
OHWM	Ordinary High Water Mark
Project	Sutters Landing Park ADA River Access Trail Project
ROW	Right-of-way
RWQCB	Regional Water Quality Control Board
Sq. ft	Square feet
SRWR	Sacramento River Winter-Run
SR	State Route

SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
TCEs	Temporary Construction Easements
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VELB	Valley Elderberry Longhorn Beetle
WOTUS	Waters of the United States

Summary

The City of Sacramento Department of Youth, Parks, and Community Engagement (City) proposes to construct an Americans with Disabilities Act (ADA) pedestrian access trail from the Sutters Landing Park parking lot to the Sutter's Landing Beach in the City of Sacramento California, as part of the Sutters Landing Park ADA River Access Trail Project (Project). The proposed Project also includes restoration and habitat enhancement of approximately 5 acres directly adjacent to Sutter's Landing Beach.

Literature research, habitat assessments, and biological surveys were completed to determine the potential for special-status species to occur within the Project area. Special-status species include any plant or animal species listed by a state or federal agency or by one or more special interest groups, such as the California Native Plant Society (CNPS). Based on the literature review, biological surveys, and habitat assessments, ten special-status species have the potential to occur, or are presumed present, within the Project area. Avoidance, minimization and mitigation measures have been incorporated for the general protection of wildlife species.

The Project area encompasses existing informal trails along the south bank of the American River, a jurisdictional water pursuant to the Clean Water Act (CWA) and the California Department of Fish and Wildlife (CDFW). The following permits will be obtained prior to construction: Section 404 Nationwide Permit from the United States (U.S.) Army Corps of Engineers (USACE), Section 408 Permit from the USACE, Section 401 Water Quality Certification from Regional Water Quality Control Board (RWQCB), Central Valley Flood Protection Board (CVFPB) Permit, and a Section 1602 Permit from CDFW.

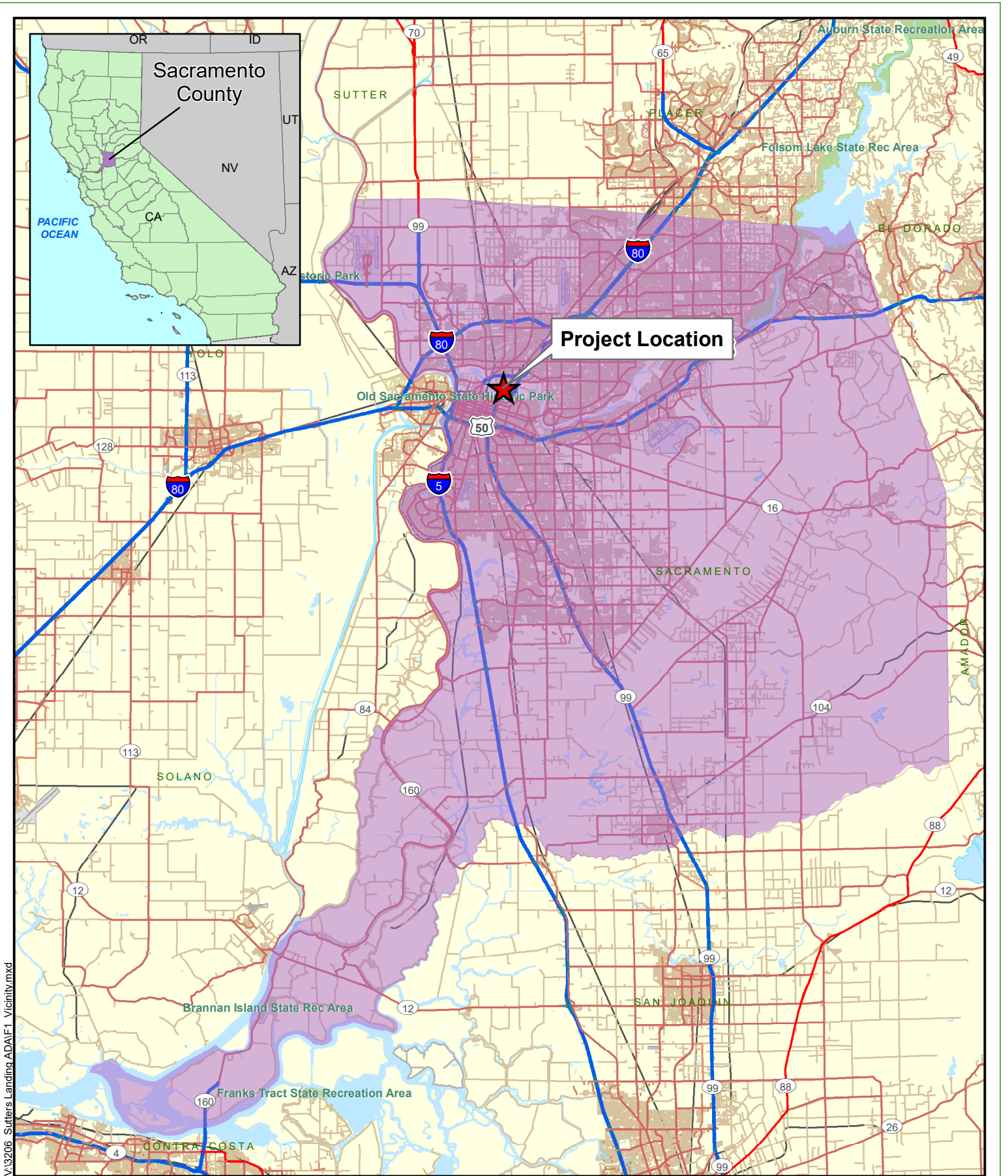
1. Introduction

The City is proposing to construct an ADA-compliant trail for recreational users to access Sutter's Landing Beach. The Project is located in the City of Sacramento, California, approximately 0.25 miles north of Interstate 80 Business Loop and approximately 0.78 miles south of State Route (SR) 160. The Project is located within the North Sacramento Community Plan Area within the boundary of the American River Parkway and is situated south of the American River. It is bound by Two Rivers/Sutter's Landing Trail to the south and is northwest of Sutter's Landing Regional Park (Figure 1. Project Vicinity and Figure 2. Project Location). The Project is located within the Sacramento East 7.5-Minute United States Geological Survey quadrangle (3812154).

This segment of the American River is also designated as a California State Wild and Scenic River, from the Nimbus Dam to its confluence with the Sacramento River. The designation protects the river's water quality, free-flowing condition, fishery, recreation, and scenic values under the California Wild and Scenic Rivers Act.

1.1 Project Description

The City proposes to construct an ADA compliant pedestrian access trail from the Sutters Landing Park parking lot to the Sutter's Landing Beach in the City of Sacramento California. The purpose of the proposed Project is to provide safe access to Sutter's Landing Beach for recreational users



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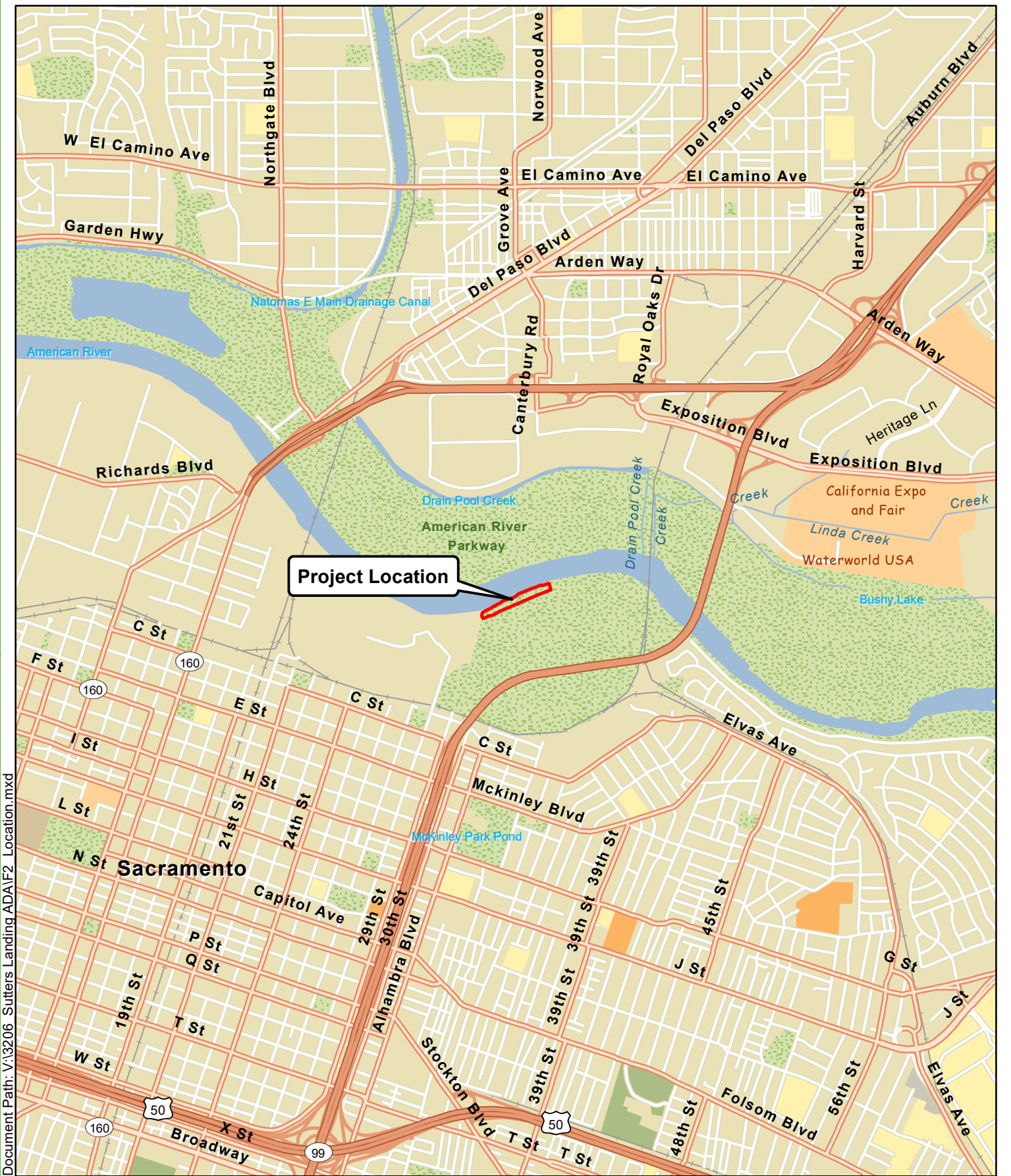
Source: ESRI 2008; Dokken Engineering 1/23/2025; Created By: k.jacobson



0 5 10 15 Miles

FIGURE 1
Project Vicinity

Sutter's Landing Park ADA River Access Trail Project
City of Sacramento, Sacramento County, California

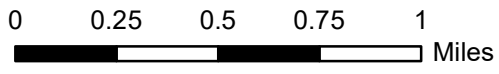


Document Path: V:\3206-Sutters Landing ADA\F2-Location.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 5/21/2025; Created By: kjacobson

FIGURE 2
Project Location

Sutter's Landing Park ADA River Access Trail
City of Sacramento, Sacramento County, California



of all ages and abilities. The proposed Project also includes restoration and habitat enhancement of approximately 5 acres directly adjacent to Sutter's Landing Beach.

The project consists of a set of concrete stairs down the face of the levee together with two ADA-compliant concrete trails located to the east and west of the stairs. The trails and the stairs converge at a concrete landing at the base of the levee where trash cans and safety vests will be available. A single concrete trail will continue north toward the river, providing access to two concrete pads that could support picnic tables. The concrete path will end at the entrance to the beach, at which point accessible mats will be installed/removed seasonally to provide access to the river's edge. The trail to the water's edge will be installed in a location selected to minimize impacts to large trees and sensitive riparian vegetation. The concrete trails will be 8 feet wide and designed to accommodate pedestrians only (Figure 3. Project Features).

All ground disturbing activities will take place within the proposed temporary construction areas depicted in the plans. Recreational access to the skate park and Sutters Landing Beach will be maintained as much as feasible; however, temporary closures may be required for safety purposes. There will be no full or partial right-of-way (ROW) acquisitions or utility easements; however, Temporary Construction Easements (TCEs) may be needed for construction of the Project. Construction will start in the spring of 2027 and is expected to last six months.

The proposed Project is locally funded through the California Wildlife Conservation Board grant; therefore, compliance with California Environmental Quality Act (CEQA) is required. The lead agency for CEQA compliance is the City. No federal funding is anticipated for this Project; therefore, National Environmental Policy Act (NEPA) compliance is limited to USACE regulatory permitting review.

Restoration

As part of the Project, the City will restore a 5-acre adjacent parcel currently dominated by invasive species (Figure 4. Habitat Enhancement Concept). The work will remove invasives from approximately 0.9 acres of open grassland and 4.1 acres of riparian forest. Existing infestations include one patch of giant reed and widespread yellow star-thistle. Removal methods may include mechanical clearing and herbicide treatment, with up to five treatment rounds per year for three years.

In the second year, the City will seed the open grassland and any riparian areas significantly disturbed by removal with a locally sourced native grass and forb mix. The City will also rehabilitate approximately 1,500 linear feet of major social trails by decompacting soil, installing temporary and permanent barriers, and planting about 4,000 native understory plants from plugs or other small containers. Plant species—developed in coordination with Friends of Sutter's Landing—will likely include dense, deterrent natives to discourage trail use.

Permanent signage will be placed at all potential trail entrances, indicating closure for restoration. Barriers such as boulders and large woody debris will be strategically positioned to deter cyclists and hikers who ignore signage. Temporary chain-link panel fencing will be used at high-use trailheads until plantings are established. Along the existing paved bike trail, permanent post-and-cable fencing will be installed to prevent grassland access, and—if approved by the flood board—





 Project Area (8.37 acres)

Project Features

 Proposed ADA Trails

 Paved Trail

 Stairs

 Cut and Fill Limits

American River

Two Rivers Trail

Restoration Area

Sutter's Landing Regional Park

VA\3206 Sutter's Landing ADA\Biology\F3 Project Features.062025.mxd

Source: ESRI Maps Online; Dokken Engineering 8/25/2025; Created By: kjacobson



0 80 160 240 320 400 Feet

Figure 3
Project Features

Sutter's Landing ADA River Access Trail Project
City of Sacramento, Sacramento County, California

- 5-Acre Restoration Area
- Barriers and Signs**
- Boulder
- ★ Large Woody Debris
- ✕ Signage
- Fencing**
- Permanent Post and Cable
- Temporary Chain Link Pannels
- Tree Planting**
- Tree Planting
- Social Trails**
- Trails to be Preserved
- Trails to be Removed
- Invasive Species Control**
- Giant Reed (*Arundo donax*) Removal
- Star Thistle Control (0.9 Acres)



V:\3206_Sutter's Landing ADA\Biology\Habitat Enhancement Concept Option3.mxd

Source: ESRI Maps Online; Dokken Engineering 3/6/2025; Created By: scotts

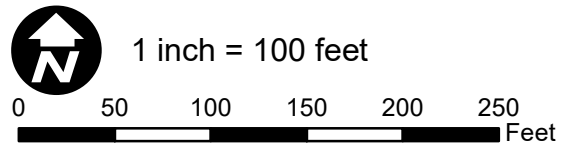


Figure 4. Habitat Enhancement Concept
 Invasive Species Removal, Tree Planting, and Trail Closures
 Sutter's Landing ADA River Access Trail Project
 City of Sacramento, Sacramento County, California

split-rail fencing may be added at key access points. Biological monitoring and reporting will be conducted for five years to assess restoration success.

1.2 Project Purpose and Need

The current access to Sutter's Landing Beach from the 28th & B Street Skate Park parking lot is informal and not ADA-compliant. The purpose of the proposed Project is to establish a formalized ADA-compliant access trail for recreational users of all ages and abilities to easily reach Sutter's Landing Beach.

2. Study Methods

2.1 Regulatory Requirements

This section describes the general federal, state, and local plans, policies, and laws that are relevant to biological resources within the Project area. Applicable approvals that could be required before construction of the Project are provided in Chapter 5.

2.1.1 Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 [16 United States Code (U.S.C.) section 1531 et seq.] provides for the conservation of endangered and threatened species listed pursuant to Section 4 of the Act (16 U.S.C. section 1533) and the ecosystems upon which they depend. These species and resources have been identified by the U.S. Fish and Wildlife Service (USFWS).

Clean Water Act

The CWA was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to Waters of the United States (WOTUS). The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The CWA empowers the U.S. Environmental Protection Agency (EPA) to set national water quality standards and effluent limitations and includes programs addressing both point source and nonpoint source pollution for all WOTUS.

On May 25, 2023, the U.S. Supreme Court issued its ruling on the Sackett v. EPA case redefining WOTUS. The ruling limits the scope of WOTUS to only those "wetlands with a continuous surface connection to bodies that are WOTUS in their own right." In addition, the Court's decision also holds that "only those relatively permanent, standing or continuously flowing bodies of water forming geographic features that are described in ordinary parlance as streams, oceans, river, and lakes" are considered WOTUS.

The CWA was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to WOTUS. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The CWA empowers the EPA to set national water quality standards and effluent limitations and includes programs addressing both point source and nonpoint source pollution. Point source pollution originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or routine maintenance site. Nonpoint source pollution originates over a broader area and includes urban contaminants in storm water runoff and sediment loading from upstream areas. The CWA operates on the principle that all discharges into the nation's waters are unlawful unless they are specifically authorized by a permit; permit review is CWA's primary regulatory tool.

Section 401

The RWQCB has jurisdiction under §401 of CWA and regulates any activity that may result in a discharge to surface waters. Typically, the areas subject to jurisdiction of the RWQCB coincide

with those of the USACE (i.e., WOTUS including any wetlands). The RWQCB also asserts authority over “Waters of the State” under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act.

Section 402

The State Water Resources Control Board (SWRCB) regulates construction projects that involve ground disturbance of 1 acre or greater. These projects must obtain coverage under the SWRCB General Permit for Storm Water Discharges Associated with Construction Activity (General Construction Permit). Operators of regulated construction sites are required to develop a Stormwater Pollution Prevention Plan; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the General Construction Permit.

Section 404

The USACE regulates discharges of dredged or fill material into WOTUS. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

Executive Order 13112: Prevention and Control of Invasive Species

Executive Order (EO) 13112 (signed February 3, 1999) directs all federal agencies to prevent and control the introduction of invasive species in a cost-effective and environmentally sound manner.

Executive Order 13186: Migratory Bird Treaty Act

EO 13186 (signed January 10, 2001) directs each federal agency taking actions that could adversely affect migratory bird populations, to work with USFWS to develop a Memorandum of Understanding that will promote the conservation of migratory bird populations. Protocols developed under the Memorandum of Understanding will include the following agency responsibilities:

- Avoid and minimize, to the maximum extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- Restore and enhance habitat of migratory birds, as practicable; and
- Prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

The EO is designed to assist federal agencies in their efforts to comply with the Migratory Bird Treaty Act (MBTA) [50 Code of Federal Regulations (CFR) 10 and 21] and does not constitute any legal authorization to take migratory birds. Take is defined under the MBTA as “the action of or attempt to pursue, hunt, shoot, capture, collect, or kill” (50 CFR 10.12) and includes intentional take (i.e., take that is the purpose of the activity in question) and unintentional take (i.e., take that results from, but is not the purpose of, the activity in question).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act, established in 1940, prevents the “take” of bald or golden eagles, including their parts (feathers, nests, eggs, etc.), (USFWS 16 U.S.C. 668-668d). Bald and golden eagles are known to occur in the Project vicinity, however bald/golden eagles or evidence of these species nesting was not observed within the Project area. To prevent take of these species, a pre-construction nesting bird survey will be completed prior to the start of Project activities (see Section 4). If an active bald or golden eagle nest is identified within the survey area the appropriate measures will be implemented to avoid take of the species.

National Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act of 1968 established the National Wild and Scenic Rivers System, protecting for future generations free-flowing waterways with extraordinary natural, cultural and recreational qualities. The system includes more than 220 rivers and covers more than 13,400 miles of rivers and streams. Designation protects each river’s unique characteristics and water quality, while ensuring these treasured rivers are protected for people’s use and enjoyment into the future. The National Wildlife Refuge System, managed by the USFWS, contains 14 wild and scenic rivers, extending 1,066 river miles. The Lower American River within the Project area is designated as a Wild and Scenic River, recognized for its outstandingly remarkable values related to fish and recreation. This river segment begins at Nimbus Dam and extends to its confluence with the Sacramento River.

2.1.2 State Regulations

California Environmental Quality Act

CEQA is a state law created to inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities and to work to reduce these negative environmental impacts. The City is the CEQA lead agency for the proposed Project.

California Endangered Species Act

The California Endangered Species Act (CESA) [California Fish and Game (CFG) Code Section 2050 et seq.] requires the CDFW to establish a list of endangered and threatened species (Section 2070) and to prohibit the incidental taking of any such listed species except as allowed by the Act (Sections 2080-2089). In addition, CESA prohibits take of candidate species (under consideration for listing).

CESA also requires CDFW to comply with CEQA (Pub. Resources Code Section 21000 et seq.) when evaluating Incidental Take Permit applications [CFG Code Section 2081(b) and California Code Regulations, Title 14, section 783.0 et seq.], and the potential impacts the project or activity, for which the application was submitted, may have on the environment. CDFW’s CEQA obligations include consultation with other public agencies that have jurisdiction over the project or activity [California Code Regulations, Title 14, Section 783.5(d)(3)]. CDFW cannot issue an Incidental Take Permit if issuance will jeopardize the continued existence of the species [CFG Code Section 2081(c); California Code Regulations, Title 14, Section 783.4(b)].

Section 3503 and 3503.5: Bird and Raptors

CFG Code Section 3503 prohibits the destruction of bird nests and Section 3503.5 prohibits the killing of raptor species and destruction of raptor nests.

Section 3513: Migratory Birds

CFG Code Section 3513 prohibits the take or possession of any migratory non-game bird as designated in the MBTA or any part of such migratory non-game bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. The act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates CWA and regulates discharges to waters of the State. Waters of the State include more than just WoUS, such as groundwater and surface waters that were recently precluded from the definition of WoUS by the Sackett ruling. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under CWA.

The RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state listed in accordance with CWA Section 303(d). If a state determines that waters are impaired, and the standards cannot be met through point source or nonpoint source controls (National Pollutant Discharge Elimination System) permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads which specify allowable pollutant loads from all sources (point, nonpoint, and natural) for a given watershed.

2.1.3 Local Regulations

Sacramento City General Plan

The City's General Plan serves as the long-term blueprint for guiding land use, development, and resource management within the City of Sacramento, California. It reflects the City's vision for growth and development over the coming decades while balancing economic, environmental, and social needs. The plan addresses key areas like housing, transportation, public services, and conservation, ensuring that future growth occurs in a sustainable and organized manner. The Project must remain consistent with the applicable policies and procedures outlined in the General Plan (City of Sacramento 2024).

Section 6 of the City's General Plan outlines policies related to the preservation of environmental resources such as water and biological resources including:

ERC-1: Responsible management of water resources that preserves and enhances water quality and availability. The City is committed to water resource protection goals and policies, including:

ERC-1.3: Runoff Contamination. The City shall protect surface water and groundwater resources from contamination from point (single location) and non-point (many diffuse locations) sources, as required by federal and State regulations.

ERC-1.4: Construction Site Impacts. The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, stormwater treatment, runoff reduction measures, best management practices (BMPs), Low Impact Development (LID), and hydromodification strategies to avoid or minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

ERC-2: Thriving rivers, wildlife, and natural open spaces that contribute to public health, livability, and protection of the environment for future generations. The City is committed to biological resource protection goals and policies, including:

ERC-2.1: Conservation of Water Resources in Open Space Areas. The City shall continue to preserve, protect, and provide appropriate access to designated open space areas along the American and Sacramento Rivers, floodways, and undevelopable floodplains, provided access would not disturb sensitive habitats or species, and shall support efforts to conserve and, where feasible, create or restore areas that provide important water quality and habitat benefits such as creeks, riparian corridors, buffer zones, wetlands, open space areas, levees, and drainage canals for the purpose of protecting water resources and habitats in the city's watersheds, creeks, and the Sacramento and American Rivers.

ERC-2.2: Biological Resources. The City shall ensure that adverse impacts on sensitive biological resources, including special-status species, sensitive natural communities, sensitive habitat, and wetlands are avoided, minimized, or mitigated to the greatest extent feasible as development takes place.

ERC-2.3: Onsite Preservation. The City shall encourage new development to preserve and restore onsite natural elements that contribute to the community's native plant and wildlife species value. For sites that lack existing natural elements, encourage planting of native species in preserved areas to establish or re-establish these values and aesthetic character.

ERC-2.8: Wildlife Corridors. The City shall preserve, protect, and avoid impacts to natural, undisturbed habitats that provides movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat shall be replaced with habitat of equivalent value or enhanced to enable the continued movement of species.

ERC-2.10: Agency Coordination. The City shall coordinate with State and Federal resource agencies (e.g., CDFW, USACE, and USFWS) to protect areas containing rare or endangered species of plants and animals.

2.2 Studies Required

2.2.1 Literature Search

In addition to field work, literature research was conducted through the USFWS Information for Planning and Consultation (IPaC) official species list generator (Appendix A. USFWS Species List), the CDFW California Natural Diversity Database (CNDDDB) (Appendix B. CNDDDB Species List), the CNPS Electronic Inventory of Rare and Endangered Plants (Appendix C. CNPS Species List), and the National Marine Fisheries Service (NMFS) West Coast Region Species List (Appendix D. NMFS Species List) to identify habitats and special-status species having the potential to occur within the Project area. Section 3.2 of this report provides a comprehensive list of the species generated from the online database searches and presents specific characteristics, habitat requirements, and potential of occurrence for each species.

2.2.2 Survey Methods

Prior to field surveys, the Biological Study Area (BSA) was defined as the Project area with an approximate 50-foot buffer to facilitate construction access, accommodate alternatives, and capture potential biological resources adjacent to Project limits. Habitat assessment and analysis of historic occurrences were conducted to determine the potential for each of these species to occur within the BSA.

Biological surveys and habitat assessment methods included walking meandering transects through the entire BSA, observing vegetation communities, compiling notes on observed flora and fauna, and assessing the potential for existing habitats to support sensitive plants and wildlife. All plant and wildlife observations were recorded and are discussed in Chapter 3.

2.2.3 Personnel and Survey Dates

A biological field survey was conducted on June 26, 2025, by Dokken Engineering biologists Katie Jacobson and Mark Fogiel. Habitat assessments were conducted within the BSA to assess the present vegetative communities, identify biological resources that may be impacted by the Project, and evaluate the potential for special-status species to occur on-site. The surveys consisted of a general assessment of biological conditions of the BSA, with special attention given to sensitive plant and wildlife species that were determined by the literature assessment to have a potential of occurring within the BSA. Methodology involved walking meandering transects throughout the BSA and recording observed vegetation and wildlife species as well as categorizing existing habitat communities.

In addition, a jurisdictional delineation was conducted along the south bank of the Lower American River, in accordance with technical methods outlined by USACE in the *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar & McColley 2008). The OHWM data sheet is included in the attached (Appendix G).

2.3 Agency Coordination and Professional Contacts

2.3.1 United States Fish and Wildlife Service

On June 30, 2025, an official species list was obtained from USFWS of federally listed species that could occur in the vicinity of the Project (Appendix A).

2.3.2 California Department of Fish and Wildlife

On June 30, 2025, a nine-quadrangle list of species with potential to occur in the Project vicinity was obtained from CDFW's CNDDDB (Appendix B).

2.3.3 California Native Plant Society

On June 30, 2025, a nine-quadrangle list of plant species with potential to occur in the Project vicinity was obtained from the CNPS Inventory of Rare and Endangered Plants of California (Appendix C).

2.3.4 National Marine Fisheries Service

On June 30, 2025, a list of federally listed fish species with the potential to occur in the Project vicinity was obtained from the NMFS West Coast Region Species List (Appendix D).

2.4 Limitations That May Influence Results

Sensitive wildlife species with the potential to occur in the BSA may be cryptic (difficult to detect) or transient, migratory species. The population size and locations of sensitive species may fluctuate through time. Because of this, the data collected for this biological resource technical report represents a "snapshot" in time and may not reflect actual future conditions.

The collection of biological field data is normally subject to environmental factors that cannot be controlled or reliably predicted. Consequently, the interpretation of field data must be conservative and consider the uncertainties and limitations imposed by the environment. Biological surveys were conducted in June, which is within the typical plant blooming period for many local species. No limitations were present that could substantially influence the results of this document. All surveys were conducted during appropriate weather and temperature conditions.

3. Results: Environmental Setting

3.1 Description of the Existing Biological and Physical Conditions Study Area

3.1.1 Study Area

The Project area, defined as the area of direct impact, is approximately 8.37 acres. Prior to field surveys, the BSA was defined as the area required for Project activities, plus an approximate 50-foot buffer to account for adjacent biological resources (Figure 3). From north to south, the BSA measures approximately 460 feet and from east to west measures approximately 1,575 feet at its widest point. The total area of the BSA is approximately 12.42 acres. The 2040 General Plan identifies the land use designation within the BSA as Parks and Recreation, and the Project is zoned as Agricultural Open Space Zone (A-OS-PC-SPD), American River Parkway-Floodplain Zone (ARP-F), and American River Parkway-Floodplain Zone (ARP-F-SPD).

3.1.2 Physical Conditions

Regionally, the Project is located within the Central Valley in Sacramento County, California. This Project is located within the Central Valley Floristic Province (Jepson 2025). Sacramento County experiences Mediterranean conditions including warm, dry summers and cool, wet winters. The nearby City of Sacramento experiences an average annual high temperature of approximately 74 degrees Fahrenheit (°F), an average annual low temperature of approximately 48°F, and an average of 18.52 inches of precipitation annually (U.S. Climate Data 2025). The elevation of the BSA is approximately 23 to 72 feet above mean sea level. According to the Natural Resources Conservation Service (NRCS) Custom Soil Report, there are two soil types within the BSA: dumps (80.7%) and water (19.3%) (NRCS 2025; Appendix E. NRCS Soil Report).

3.1.3 Biological Conditions in the Study Area

Plant and wildlife species identified during the June 2025 biological survey were used to classify vegetation communities within the BSA, based on their composition, abundance, and density (Table 1. Species Observed). Four primary vegetation communities were documented: annual grassland, native planting area, riparian scrub, and riparian woodland. There are also urban and barren areas within the BSA. Additionally, the American River, a jurisdictional WOTUS and state, is directly adjacent to and partially within the BSA (Figure 5. Vegetation Communities; Appendix F. Representative Photographs). A detailed description of each vegetation community is provided below.

Annual Grassland

Annual grassland habitats are open areas dominated primarily by annual plant species. In the BSA, this habitat type is found along the edges of the existing Two Rivers Trail and informal dirt trails, situated south of the riparian woodland. During the biological survey conducted in June 2025, the grasses appeared recently trimmed. Common species observed in this habitat include wild oat (*Avena sp.*), Bermuda grass (*Cynodon dactylon*) and yellow star thistle (*Centaurea solstitialis*). As part of the Project's restoration efforts, targeted removal of invasive species—specifically yellow star thistle—will take place north of the Two Rivers Trail. There are also several

- Biological Study Area (12.42 acres)
- Vegetation Communities**
- Annual Grassland (3.13 acres)
- Barren (0.69 acres)
- Native Planting Area (0.19 acres)
- Perennial Stream Channel (2.04 acres)
- Riparian Scrub (0.68 acres)
- Riparian Woodland (4.41 acres)
- Urban (1.28 acres)



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Source: ESRI Maps Online; Dokken Engineering 8/25/2025; Created By: kjacobson

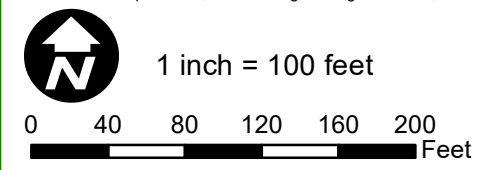


Figure 5
Vegetation Communities

Sutter's Landing ADA River Access Trail Project
City of Sacramento, Sacramento County, California

patches of elderberry shrubs (*Sambucus mexicana*) present in this habitat type. Annual grasslands cover approximately 3.13 acres within the BSA.

Barren

The BSA contains existing dirt trails that traverse riparian woodland and annual grassland habitats, both of which have been disturbed by frequent foot traffic. Barren areas are also present along the northern shoulder of the existing Two Rivers Trail, which runs northeast through the BSA. These areas are either entirely devoid of vegetation or support only sparse, disturbed plant growth. Due to the BSA's location within a heavily used recreational area, these barren zones experience significant human activity. Barren areas account for approximately 0.69 acres of the BSA.

Native Planting Area

The BSA includes a native planting area in its western region, covering approximately 0.19 acres. This area features a variety of planted native species, including broadleaf milkweed (*Asclepias latifolia*), deer grass (*Muhlenbergia rigens*), and California fuchsia (*Epilobium canum*). This area provides suitable foraging habitat for a variety of pollinators including the monarch butterfly.

Perennial Stream Channel

The BSA is located directly on the southern bank of the American River, a perennial stream channel that holds water year-round. The river originates in eastern Placer County in the Tahoe National Forest and flows southwest before converging with the Sacramento River. Given the BSA is approximately 14 miles downstream of the Nimbus Dam, flows within this portion of the American River are influenced by water releases generated by the Dam, regulated by the U.S. Bureau of Reclamation. This aquatic feature is classified as a WOTUS and state. The American River comprises approximately 2.04 acres of the BSA.

Riparian Scrub

Riparian scrub habitat occurs along waterways and is characterized by shrubs and small trees adapted to wet conditions and periodic flooding. Within the BSA, this habitat is primarily dominated by narrowleaf willow (*Salix exigua*), which grows in patches along the banks of the American River. In some areas, an understory of native California blackberry (*Rubus ursinus*) is also present. Riparian scrub covers approximately 0.68 acres of the BSA.

Riparian Woodland

The BSA includes a dense, mature riparian woodland habitat that encompasses the south bank of the American River. This community is dominated by a variety of native tree species including valley oak (*Quercus lobata*), box elder (*Acer negundo*), Oregon ash (*Fraxinus latifolia*), Fremont cottonwood (*Populus fremontii*), northern California black walnut (*Juglans hindsii*), California sycamore (*Plantanus racemosa*), arroyo willow (*Arroyo willow*), and Gooding's willow (*Salix goodingii*). Along Sutter's Landing Beach, the understory of the riparian woodland habitat is barren and lacks herbaceous vegetation due to recreational use. Upland of Sutter's Landing Beach, the understory is comprised of Himalayan blackberry (*Rubus armeniacus*), California rose (*Rosa californica*), and wild grape (*Vitis californica*). Elderberry shrub patches are also common throughout the community. Riparian woodland provides suitable habitat for a variety of wildlife

species including birds and mammals. Riparian woodland comprises approximately 4.41 acres of the BSA.

Urban

The BSA includes developed urban areas including a portion of the 28th & B Street Skate Park, a parking lot, the paved Two Rivers Trail and a second unnamed gravel trail. These areas are devoid of vegetation and regularly disturbed as a result of intensive recreational activity. Urban areas comprise approximately 1.28 acres of the BSA.

Table 1. Species Observed

Scientific Name	Common Name	Native (N)/ Non-Native (X) ¹
Plant Species		
<i>Acer negundo</i>	Boxelder	N
<i>Acer saccharinum</i>	Silver maple	X
<i>Artemisia douglasiana</i>	Mugwort	N
<i>Asclepias latifolia</i>	Broadleaf milkweed	N
<i>Avena sp.</i>	Wild oat	X [Moderate]
<i>Baccharis pilularis</i>	Coyote brush	N
<i>Bromus diandrus</i>	Rippgut brome	X [Moderate]
<i>Carduus pycnocephalus</i>	Italian thistle	X [Moderate]
<i>Carex barbarae</i>	Valley sedge	N
<i>Catalpa speciosa</i>	Northern catalpa	X
<i>Celtis sinensis</i>	Chinese hackberry	X
<i>Centaurea solstitialis</i>	Yellow star thistle	X [High]
<i>Cephalanthus occidentalis</i>	Common buttonbush	N
<i>Cercis occidentalis</i>	Western redbud	N
<i>Chenopodium album</i>	Lambs quarters	X
<i>Conium maculatum</i>	Poison hemlock	X [Moderate]
<i>Cynodon dactylon</i>	Bermuda grass	X [Moderate]
<i>Cyperus eragrostis</i>	Tall flatsedge	X [Moderate]
<i>Daucus carota</i>	Queen Anne's lace	X
<i>Elymus triticoides</i>	Beardless wild rye	N
<i>Epilobium brachycarpum</i>	Panicled willow herb	N
<i>Epilobium canum</i>	California fuchsia	N
<i>Equisetum laevigatum</i>	Smooth horsetail	N
<i>Eschscholzia californica</i>	California poppy	N
<i>Euthamia occidentalis</i>	Western goldenrod	N
<i>Festuca perennis</i>	Italian rye grass	X [Moderate]
<i>Foeniculum vulgare</i>	Sweet fennel	X [Moderate]
<i>Fraxinus latifolia</i>	Oregon ash	X
<i>Grindelia camporum</i>	Common gumweed	N
<i>Hirschfeldia incana</i>	Shortpod mustard	X [Moderate]
<i>Hordeum murinum</i>	Foxtail barley	X [Moderate]
<i>Hypericum perforatum</i>	Klamath weed	X [Limited]
<i>Juglans hindsii</i>	Northern california black walnut	N
<i>Lactuca serriola</i>	Prickly lettuce	X
<i>Lepidium latifolium</i>	Broadleaved pepperweed	X [High]
<i>Marah fabacea</i>	California manroot	N
<i>Marrubium vulgare</i>	White horehound	X [Limited]
<i>Mentha pulegium</i>	Pennyroyal	X [Moderate]
<i>Muhlenbergia rigens</i>	Deergrass	N
<i>Nicotiana acuminata</i>	Manyflower tobacco	X
<i>Platanus racemosa</i>	California sycamore	N
<i>Populus fremontii</i>	Fremont cottonwood	N
<i>Quercus lobata</i>	Valley oak	N
<i>Raphanus raphanistrum</i>	Wild radish	X
<i>Rosa californica</i>	California wild rose	X
<i>Rubus armeniacus</i>	Himalayan blackberry	X [High]
<i>Rubus ursinus</i>	California blackberry	N
<i>Rumex crispus</i>	Curly dock	X [Limited]
<i>Rumex salicifolius</i>	Willow leafed dock	N

<i>Salix exigua</i>	Narrowleaf willow	N
<i>Salix gooddingii</i>	Gooding's willow	N
<i>Salix lasiolepis</i>	Arroyo willow	N
<i>Sambucus mexicana</i>	Blue elderberry	N
<i>Saponaria officinalis</i>	Bouncing bet	X [Limited]
<i>Silybum marianum</i>	Milk thistle	X [Limited]
<i>Ulmus minor</i>	English elm	X
<i>Ulmus parvifolia</i>	Chinese elm	X
<i>Verbascum blattaria</i>	Moth mullein	X
<i>Verbena litoralis</i>	Brazilian verbena	X
<i>Vicia sp.</i>	Vetch	X
<i>Vitis californica</i>	California grape	N
Wildlife Species		
<i>Anas platyrhynchos</i>	Mallard	N
<i>Aphelocoma californica</i>	California scrub jay	N
<i>Branta canadensis</i>	Canada goose	N
<i>Buteo swainsoni</i>	Swainson's hawk	N
<i>Columba livia</i>	Rock pigeon	X
<i>Corvus brachyrhynchos</i>	American crow	N
<i>Haemorhous mexicanus</i>	House finch	N
<i>Mergus merganser</i>	Common merganser	N
<i>Mimus polyglottos</i>	Northern mockingbird	N
<i>Pipilo maculatus</i>	Spotted towhee	N
<i>Psaltriparus minimus</i>	Bushtit	N
<i>Sayornis nigricans</i>	Black phoebe	N
<i>Sciurus griseus</i>	Western gray squirrel	N
<i>Sialia mexicana</i>	Western bluebird	N
<i>Spinus psaltria</i>	Lesser goldfinch	N
<i>Sturnus vulgaris</i>	European starling	X
<i>Tachycineta bicolor</i>	Tree swallow	N
<i>Thryomanes bewickii</i>	Bewick's wren	N
<i>Zenaida macroura</i>	Mourning dove	N

¹California Invasive Plant Council (Cal-IPC) Rating

Wildlife

Wildlife observations within the BSA consisted of local bird species such as American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), California scrub jay (*Aphelocoma californica*), and black phoebe (*Sayornis nigricans*). In addition, several Swainson's hawks (at least three) were observed soaring over the American River and riparian habitat.

Habitat Connectivity

The CDFW Biogeographic Information & Observation System (CDFW 2025a) was reviewed to determine if the BSA is located within an Essential Habitat Connectivity Area. The BSA is within an area of Terrestrial Connectivity Rank 3–Connections with Implementation Flexibility. This ranking represents areas that have connectivity importance but are not classified as priority corridors that facilitate wildlife movement or species-specific habitat linkages. Although the area may support wildlife movement and contribute to ecological connectivity, its designation as Rank 3 indicates greater flexibility for conservation planning, as it is not part of an essential habitat linkage.

The Project is not expected to create new barriers or fragment existing wildlife corridors, as the trail will follow the alignment of an existing dirt path down to Sutter's Landing Beach. While construction of the trail and associated features may temporarily disturb terrestrial wildlife moving through the riparian area, these impacts will be short-term and will not result in permanent fragmentation of the riparian corridor or other sensitive habitats. Upon completion of the trail, wildlife movement and access through the area will be maintained. As such, the Project will not permanently disrupt wildlife corridors or habitat connectivity.

3.2 Regional Species and Habitats and Natural Communities of Concern

Plant and animal species have special-status if they have been listed as such by federal or state agencies or by one or more special interest groups, such as CNPS.

In addition to the field survey, literature searches were conducted using USFWS IPaC, CDFW CNDDDB, CNPS, and NMFS databases to identify regionally sensitive species with potential to occur within the BSA. Table 2. Special-Status Species with Potential to Occur in the Project Vicinity provides an updated list of regional special-status species returned by the database searches, describes the habitat requirements for each species, and states if the species has potential to occur within the BSA. Seventeen (17) special-status plant species and 29 special-status wildlife species were returned by the database searches. No special-status plant species were determined to have the potential to occur within the BSA.

Two special-status wildlife species have been determined to have a high potential to occur within the BSA: Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*). Four special-status wildlife species have been determined to have a low potential to occur within the BSA: monarch butterfly (*Danaus plexippus*), purple martin (*Progne subis*), song sparrow ("Modesto" population) (*Melospiza melodia pop. 1*), and northwestern pond turtle (*Actinemys marmorata*). Lastly, four species are presumed present within the BSA: chinook salmon Central Valley spring-run ESU (*Oncorhynchus tshawytscha pop. 11*), chinook salmon Sacramento River winter-run ESU (*Oncorhynchus tshawytscha pop. 7*), steelhead–Central Valley Distinct Population Segment (DPS) (*Oncorhynchus mykiss irideus pop. 11*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Burrowing owl	<i>Athene cunicularia</i>	Fed: State: CDFW:	-- CE SSC	The species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Can be associated with open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old small mammal burrows but may dig own burrow in soft soil. Nests are lined with excrement, pellets, debris, grass, and feathers. The species may use pipes, culverts, and nest boxes, and even buildings where burrows are scarce. Breeding occurs March through August (below 5,300 feet).	A	Presumed Absent: The BSA occurs within the riparian woodland habitat along the American River and lacks arid, open areas with sparse vegetation cover. One small rodent burrow was observed within the BSA near the existing trail, but it did not exhibit any signs of burrowing owl occupation. There is disturbed grassland located south of the BSA that may provide suitable habitat for the burrowing owl. However, no individuals of the species have ever been recorded there. The nearest CNDDDB occurrence was approximately 1.6 miles southeast of the BSA (1974). The most recent recorded occurrence from CNDDDB is approximately 9.5 miles southeast of the BSA (2016). Based on lack of suitable habitat within the BSA and lack of nearby occurrences, this species is presumed absent.
California black rail	<i>Laterallus jamaicensis coturniculus</i>	Fed: State: CDFW:	-- T FP	A rare, yearlong California resident of brackish and freshwater emergent wetlands in delta and coastal locations including the San Francisco Bay area, Sacramento–San Joaquin Delta, Morro Bay, the Salton Sea, and lower Colorado River. More than 90% of the species are found in the tidal salt marshes of the northern San Francisco Bay region, predominantly in San Pablo and Suisun Bays. Smaller populations occur in the San Francisco Bay, the Outer Coast of Marin County, and freshwater marshes in the foothills of the Sierra Nevada. The species is extirpated from San Diego County and the majority of coastal southern California. Occurs in tidal emergent wetlands	A	Presumed Absent: The BSA does not contain suitable brackish or freshwater emergent wetland habitat for this species. There is only one CNDDDB occurrence within 10 miles of the BSA, approximately 7.2 miles southwest (2017) within wetlands adjacent to the Sacramento River Deep Water Ship Channel. Due to the lack of suitable habitat as well as the lack of local occurrences, this species is presumed absent.

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			dominated by pickleweed, in brackish marshes dominated by bulrushes with pickleweed, and in freshwater wetlands dominated by bulrushes, cattails, and salt grass. Species prefer high wetland areas, away from areas experiencing fluctuating water levels. Requires vegetation providing adequate overhead cover for nesting. Eggs are laid from March through June.		
Golden eagle	<i>Aquila chrysaetos</i>	Fed: -- State: -- CDFW: FP	Inhabits rolling foothills, mountain areas, sage-juniper flats, and desert communities. Requires open terrain for hunting, often utilizing rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops, grasslands and early successional stages of forest and shrub habitats. Territory is estimated to average 36 mi ² in southern California and 48 mi ² in northern California. Nests on cliffs of all heights and in large trees in open areas may reuse previous nest sites. Breeds from late January through August (0–11,500 feet).	A	Presumed Absent: The BSA occurs within the riparian woodland habitat along the American River and lacks open terrain for hunting and nesting. There are no foothill, mountain, sage-juniper flats or desert communities present within the BSA. There is only one CNDDDB occurrence documented within 10 miles of the BSA, located approximately 8.8 miles southeast in annual grassland habitat (1991). Due to lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Fed: E State: E CDFW: --	Summer resident of southern California inhabiting low elevation riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite and other low, dense vegetation as nesting site. Forages in dense brush and occasionally treetops. The species is known to occur in all four southern California national forests, with the largest population in the Los Padres National Forest (below 2,000 feet).	A	Presumed Absent: The BSA contains dense riparian woodland habitat that may provide suitable nesting and foraging habitat for this species. However, the BSA is outside of the current USFWS designated range for this species. There is one CNDDDB historical occurrence approximately 3.3 miles west of the BSA (1877) and one occurrence approximately 10 miles southwest of the BSA in Yolo County. There are no other recorded occurrences of this species within 10 miles of the BSA. Due to the lack of local

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
					occurrences and the species current distribution, this species is presumed absent.
Purple martin	<i>Progne subis</i>	Fed: -- State: -- CDFW: SSC	Present in California as a summer migrant, arriving in March and departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats, and riparian habitats. Associated with closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities and may nest in human-made structures such as nesting boxes, under bridges and in culverts. Needs abundant aerial insect prey. Breeds April through August.	HP	Low Potential: The BSA contains riparian woodland habitat and is adjacent to the American River which may provide suitable foraging habitat for the species. Cavities in dead or living trees within the riparian woodland habitat may also be used as nesting habitat. Additionally, no individuals were observed during the June 2025 biological survey. However, two iNaturalist records from 2015 and 2017 document the species within Sutter's Landing Regional Park, which borders the BSA. These records indicate individuals were foraging (flying over) the area, not nesting. The nearest CNDDB occurrence is located approximately 2 miles northeast of the BSA, at the El Camino Overpass in which the birds were nesting in weep holes in the overpass (2003). Based on the suitable foraging habitat and nearby occurrences, this species has a low potential to occur within the BSA.
Song sparrow ("Modesto" population)	<i>Melospiza melodia pop. 1</i>	Fed: -- State: -- CDFW: SSC	An endemic bird found exclusively in the north-central portion of the Central Valley, with highest densities in the Butte Sink and Sacramento-San Joaquin River Delta. The species is usually found in open brushy habitats, along the borders of ponds or streams, abandoned pastures, desert washes, thickets, or woodland edges. In addition, there is a strong affinity for emergent freshwater marshes dominated by tules and cattails,	HP	Presumed Absent: The BSA occurs along the south bank of the American River within closed canopy riparian woodland habitat containing oaks and willows that may be suitable for the species. There are several large patches of blackberry, wild rose, and elderberry shrubs that may provide suitable nesting and cover habitat for the species. However, the area lacks freshwater

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			riparian willow thickets, and valley oak forests with a blackberry understory. Nests found in base of shrubs or clumps of grass, requiring low, dense vegetation for cover, usually near water. Breeds from March through August.		emergent marshes with emergent vegetation which this species prefers. No individuals of this species were observed within the BSA during the June 2025 biological survey. There is one historic (1900) CNDDDB occurrence documented within the BSA. The nearest, most recent CNDDDB occurrence is located approximately 9.7 miles southwest of the BSA along South Fork Putah Creek (2011). Due to lack of mixed brushland and emergent vegetation, this species is presumed absent.
Swainson's hawk	<i>Buteo swainsoni</i>	Fed: -- State: T CDFW: --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds March to late August.	HP	High Potential: The BSA contains a riparian woodland and areas with sparser, tall trees with an open understory suitable for foraging. At least two individuals were observed soaring over the BSA during the June 2025 biological survey. There is one CNDDDB occurrence of the species documented within the BSA in which a nest was observed in a large cottonwood tree from 2008-2011. There are also six iNaturalist occurrences of the species within Sutter's Landing Park directly adjacent to the BSA, with the most recent recorded in April 2025. Due to the presence of suitable habitat, abundance of local occurrences and the species observation during survey efforts, this species has a high potential to occur within the BSA during the nesting bird season.
Tricolored blackbird	<i>Agelaius tricolor</i>	Fed: -- State: T	Inhabits freshwater marsh, swamp and wetland communities, but may utilize	A	Presumed Absent: The BSA does not contain suitable marsh, swamp, and

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW: SSC	agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3–5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests in dense cattails, tules, willow, blackberry, wild rose, or tall herbs. Nests mid-March to early August but may extend until October or November in the Sacramento Valley region.		wetland communities or suitable, dense nesting habitat. The nearest CNDDDB occurrence is located approximately 5.4 miles northeast of the BSA between Dry Creek Road and Patrol Road (2014). Due to the lack of suitable habitat and lack of recent, nearby occurrences, this species is presumed absent.
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Fed: T State: E CDFW: --	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian forests, often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; it requires water near nesting site. Breeds June to August.	HP	Presumed Absent: The BSA occurs along the American River within riparian forest habitat with cottonwoods and other large trees that may provide suitable habitat for the species. However, the BSA is outside of the current USFWS and CDFW designated ranges. There is one CNDDDB occurrence within 10 miles of the BSA, however this is historic (1877) and noted as Extirpated. There are also no iNaturalist occurrences in the Sacramento area. Due to the species current range along with the lack of local occurrence records, and “Extirpated” determination, this species is presumed absent.
White-tailed kite	<i>Elanus leucurus</i>	Fed: -- State: -- CDFW: FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. In southern	HP	High Potential: The BSA contains potentially suitable nesting and foraging habitat, as well as abundant habitat adjacent to the BSA. The nearest CNDDDB occurrence is located approximately 0.63 miles northeast of

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			California, it will roost in saltgrass and Bermuda grass. Often found near agricultural lands. Nests are placed near the tops of dense oak, willow, or other tree stands. Breeds February through October.		the BSA along the north bank of the American River in which a nest was observed within a cottonwood tree. The nearest, most recent CNDDDB occurrence is approximately 4.25 miles southwest of the BSA in which an individual was nesting in a residential neighborhood (2017). There is also a recent iNaturalist occurrence of the species in the BSA in which the species was perched in a tree (2017), as well as three additional occurrences recorded in Sutter's Landing Regional Park between 2017 and 2024. No individuals were observed during the June 2025 biological survey. Due to the presence of potentially suitable habitat and local occurrences, this species has a high potential to occur.
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	Fed: -- State: -- CDFW: SSC	The species occurs primarily as a migrant and summer resident from April to early October. The species almost exclusively nests in marshes with tall emergent vegetation such as tules (<i>Scirpus</i> sp.) or cattails (<i>Typha</i> sp.), in open areas and edges over water at depths typically ranging from 1–4 feet deep. Frequently breeds within marshes edges of lakes, reservoirs, or larger ponds. Nesting colonies occur where large insects, such as Odonata, are present and emerging. Breeds from April through July.	A	Presumed Absent: The BSA lacks marsh habitat and emergent vegetation. There is one CNDDDB occurrence documented within 10 miles of the BSA, located approximately 9.7 miles southwest. Due to the lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Fish Species					
Chinook Salmon– Central Valley Spring-Run Evolutionarily	<i>Oncorhynchus tshawytscha</i> pop. 11	Fed: T State: T CDFW: --	Spring-run Chinook enter the Sacramento–San Joaquin River system to spawn, requiring larger gravel particle size and more water flow through their redds than other salmonids. The remaining runs occur in Butte, Mill, Deer,	CH	Presumed Present: The lower American River is known to support this species and is Critical Habitat for the species. The Nimbus Fish Hatchery located in Folsom, CA also raises

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale	
Significant Unit (ESU)			Antelope, and Beegum Creeks, tributaries to the Sacramento River. Known to occur in Siskiyou and Trinity counties.		Chinook salmon for release into the American River and being connected to the Sacramento River, the American River may support this species. The only CNDDDB occurrence within 10 miles of the BSA is located approximately 4.1 miles southwest within the Sacramento River Deep Water Ship Channel (2004), however there are other records from CDFW of this species within the American River. Due to the presence of suitable habitat along with the nearby occurrence, this species is presumed present.	
Chinook salmon– Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i> pop. 7	Fed: State: CDFW:	E E --	Winter-run Chinook are currently restricted within the Sacramento River below Keswick dam; species do not spawn in tributaries. Species require cold water over gravel beds to spawn.	HP	Presumed Present: The lower American River is known to support this species. The Nimbus Fish Hatchery located in Folsom, CA also raises chinook salmon for release into the American River and being connected to the Sacramento River, the American River is supportive to this species. The only CNDDDB occurrence within 10 miles of the BSA is located approximately 4.1 miles southwest within the Sacramento River Deep Water Ship Channel, however there are other records from CDFW of this species within the American River. Due to the presence of suitable habitat and the nearby occurrence, this species is presumed present.
Delta smelt	<i>Hypomesus transpacificus</i>	Fed: State: CDFW:	T E --	This species is endemic to California and can tolerate a wide range of salinity and temperatures but is most, commonly found in brackish waters. Juveniles require shallow waters with rich food resources. Adults require	A	Presumed Absent: This species is not known to occur in the American River and prefers brackish waters. Due to the lack of suitable habitat, this species is presumed absent.

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			adequate flow and suitable water quality for spawning in winter and spring. Occurs within the Sacramento–San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.		
Green sturgeon–southern District Population Segment (DPS)	<i>Acipenser medirostris</i> pop. 1	Fed: State: CDFW:	T -- SSC	A	Presumed Absent: This species is not known to occur within the American River. Though the species spawns within pockets of the Sacramento River, it is not known to utilize the American River. There are no CNDDDB records for this species within 10 miles of the BSA. Due to lack of occurrence and preferred habitat, this species is presumed absent.
Longfin smelt–San Francisco Bay Delta DPS	<i>Spirinchus thaleichthys</i> pop.2	Fed: State: CDFW:	E T --	A	Presumed Absent: This species is not known to occur in the American River and does not travel far north of Rio Vista, CA. This species prefers more turbid, slow-moving waters, the American River is a fast-moving freshwater channel. Due to lack of occurrences and habitat, this species is presumed absent.

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			make daily migrations, remaining deep during the day and rising to the surface at night.		
Sacramento perch	<i>Archoplites interruptus</i>	Fed: -- State: -- CDFW: SSC	Inhabits sloughs, lakes, and slow-moving rivers of the Central Valley. Prefers turbid lakes, reservoirs and ponds warmed by summer heat and absence of plants; may occasionally occur in clear water among beds of aquatic vegetation. Species tolerate high temperatures, high salinities, high turbidity, and low water clarity. Young requires aquatic and overhanging vegetation for cover. Spawns March-August in water temperatures between 64–84°F.	A	Presumed Absent: The BSA does not contain suitable habitat for this species. This species inhabits slow-moving waters, while the American River is a fast-moving channel. The only CNDDDB occurrence within 10 miles is approximately 6.8 miles southwest in Lake Greenhaven (1973). Due to lack of suitable habitat and local occurrences, this species is presumed absent.
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	Fed: -- State: -- CDFW: SSC	Historically inhabited slow-moving rivers, sloughs, and alkaline lakes of the Central Valley; now restricted to the Delta, Suisun Bay and associated marshes. Species are adapted to fluctuating environments with tolerance to water salinities from 10–18 ppt., low oxygen levels (< 1.0 mg/L) and temperatures of 41–75°F. Spawns late February-early July, with a peak in March through April; requires flooded vegetation for spawning activity and protective cover for young.	A	Presumed Absent: The BSA does not contain suitable habitat for this species. The American River is a fast-moving freshwater channel. Due to lack of suitable habitat, this species is presumed absent.
Steelhead–California Central Valley DPS	<i>Oncorhynchus mykiss irideus</i> pop. 11	Fed: T State: -- CDFW: SSC	This DPS includes naturally spawned anadromous <i>O. mykiss</i> (steelhead) originating below natural and manmade impassable barriers from the Sacramento and San Joaquin Rivers and their tributaries; excludes such fish originating from San Francisco and San Pablo Bays and their tributaries. Spawning occurs in watersheds while rearing occurs in freshwater or estuary habitats prior to emigrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with	CH	Presumed Present: The Lower American River is known to support this species and is Critical Habitat for the species. The Nimbus Fish Hatchery, located in Folsom, CA, also raises steelhead for release into the American River. Due to the presence of habitat and known occurrence, this species is presumed to be present.

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October to May with spawning occurring January to April.		
Invertebrate Species					
Crotch's bumble bee	<i>Bombus crotchii</i>	Fed: -- State: CE CDFW: --	This species is known to occupy underground nests in grassland, shrubland, and chaparral habitats throughout central California, south to Baja, California, and into Mexico. Most observations occur in southern California along coastal areas. Individuals of this species have a short tongue and primarily feed on these plants: <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> and <i>Salvia</i> .	A	Presumed Absent: Chaparral and shrubland habitats are absent from the BSA. Although some grassland is present, it has been regularly mowed and may not provide suitable habitat for the species. The June 2025 biological survey noted a general lack of foraging resources within the BSA, and no individuals of <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , or <i>Salvia</i> were observed. While some planted milkweed is present and could offer limited foraging habitat, there are no CNDDDB records of the species within 10 miles of the BSA, nor are there any nearby iNaturalist observations. Based on the lack of suitable habitat and absence of local occurrences, the species is presumed absent from the BSA.
Monarch butterfly	<i>Danaus plexippus</i>	Fed: C State: -- CDFW: --	Winter roosts along the coast from northern Mendocino to Baja California. Utilizes wind protected tree groves in proximity to nectar and water sources. Host plants include milkweed species such as <i>Asclepias latifolia</i> , <i>A. syriaca</i> , <i>A. incarnata</i> , and <i>A. speciosa</i> . Suitable habitat includes fields, meadows, weedy areas, marshes, and roadsides. Mass adult migrations occur from August to October.	HP	Low Potential: During biological survey efforts the species host plant, milkweed, was observed on site. There are no documented CNDDDB occurrences of the species within 10 miles. According to the Western Monarch Milkweed Mapper, there are no occurrences of the species within Sutter's Landing Regional Park, however, there is one occurrence located near McKinley Park approximately 0.75 miles south of the BSA (2025). Due to the presence of milkweed on site along with the nearby

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
					occurrence, this species has a low potential to occur.
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Fed: T State: -- CDFW: --	Species require red or blue elderberry (<i>Sambucus sp.</i>) as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. Adults are active, feeding, and breeding from March until June (sea level to 3,000 feet).	HP	Presumed Present: The BSA contains woodland habitat inland and on the banks of the American River that could provide suitable habitat for the species. 300+ elderberry shrubs were observed during the June 2025 biological survey. Exit holes, indicating the presence of VELB, were also observed. Due to the presence of suitable habitat and observance of exit holes, this species is presumed to be present.
Vernal pool fairy shrimp	<i>Brachinecta lynchi</i>	Fed: T State: -- CDFW: --	In California, the species inhabits portions of Tehama County, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. The species is associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	Presumed Absent: The BSA lacks vernal pool habitat. The nearest CNDDDB occurrence is approximately 3.0 miles northwest of the BSA along Natomas East Main Drainage Canal (1995). Due to lack of suitable habitat within the BSA, this species is presumed absent.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	Fed: E State: -- CDFW: --	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	A	Presumed Absent: The BSA lacks vernal pool habitat. The nearest CNDDDB occurrence is approximately 5.2 miles southeast of the BSA (1992). Due to lack of suitable habitat within the BSA, this species is presumed absent.
Mammal Species					
American badger	<i>Taxidea taxus</i>	Fed: -- State: --	An uncommon, nocturnal and diurnal, permanent resident throughout most of	HP	Presumed Absent: While the BSA contains suitable soil and along with

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	SSC	California, aside from the northern coastline. Most abundant in drier and open stages of most shrub, forest, and herbaceous habitats with friable soils. Habitat requirements include access to fossorial rodents and sometimes reptiles, insects, birds, and eggs. Friable soil is required for digging burrows, often a new one dug each night, and frequently reuse old burrows. Young are born in burrows that have relatively dry, often sandy, soil, usually in areas with sparse overstory cover.		riparian forest habitat, this species is not known to be common in the area. The only CNDDDB occurrence within 10 miles of the BSA is located approximately 4.8 miles southeast of the BSA (1991). There are no iNaturalist occurrences of the species within the City of Sacramento. Due to the lack of nearby occurrences, this species is presumed absent.
Reptile Species						
Giant garter snake	<i>Thamnophis gigas</i>	Fed: State: CDFW:	T T --	A highly aquatic species that inhabits marshes, swamps, wetlands (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. The species requires adequate water during the active season (April through November), emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season. Mating occurs in the spring and females bear live young.	A	Presumed Absent: This species prefers slow-moving water and is not known to occur in the fast-moving American River. There is also no emergent wetland vegetation within the BSA which is required for cover and foraging. The nearest CNDDDB occurrence is approximately 3.9 miles northwest of the BSA and noted as possibly extirpated (1986). Due to lack of suitable habitat and lack of nearby occurrences, this species is presumed absent.
Northwestern pond turtle	<i>Actinemys marmorata</i>	Fed: State: CDFW:	PT -- SSC	An aquatic turtle of ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with aquatic vegetation. Suitable habitat includes woodland, forests, and grasslands. Requires logs, rocks, cattail mats, and exposed banks for basking. Suitable upland habitat (sandy banks or grassy open	HP	Low Potential: Although northwestern pond turtle is known to occur within the American River, the river channel present within the BSA is not preferred habitat by the species due to fast moving flows, as well as a lack of basking habitat and emergent vegetation. The nearest

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			field) is required for reproduction, which begins in April and ends with egg laying as late as August (sea level to 4,700 feet).		documented CNDDDB occurrence of the species is approximately 5.6 miles northeast of the BSA at Don Julio Creek at the McClellan Air Base, recorded in 1995. There is also a recent iNaturalist occurrence of the species directly east of the BSA in which a pond turtle was observed basking on downed tree branches in the river (2021). However, there is more basking habitat available upstream and downstream of the BSA. Due to the nearby presence of suitable habitat, this species has a low potential to occur.
Plant Species					
Ahart's dwarf rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	Fed: -- State: -- CDFW: 1B.2	An annual grasslike herb inhabiting grassland swales, gopher mounds, freshwater wetlands, wetland-riparian habitats and foothill grassland communities. Flowers March–May (100–750 feet).	A	Presumed Absent: The BSA contains grassland communities, however, the grasslands within the BSA are disturbed by invasive species and lack clay soils per the NRCS soil report. There are no CNDDDB occurrences within 10 miles of the BSA, and no iNaturalist occurrences within the Sacramento area. Due to the lack of suitable habitat features and lack of recent, nearby species occurrences, this species is presumed absent.
Alkali-sink goldfields	<i>Lasthenia chrysantha</i>	Fed: -- State: -- CDFW: 1B.1	An annual herb native to California. Generally found in alkali sinks, valley grassland, vernal pools, saline flats, and wetland-riparian areas. Blooms February to June (<300 ft).	A	Presumed Absent: The BSA contains grassland and riparian communities. However, the grasslands within the BSA are disturbed and both the riparian and grassland habitats lack alkali soil. No individuals were observed within the BSA during the June 2025 biological survey. There are no CNDDDB occurrences within 10 miles of the BSA, and no iNaturalist occurrences within the Sacramento area. Due to the lack of

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale	
					suitable habitat features and lack of recent species occurrences, this species is presumed absent.	
Bogg lake hedge-hyssop	<i>Gratiola heterosepala</i>	Fed: State: CDFW:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes, swamps, lake margins, and vernal pools. Flowers April–August (30–7,800 feet).	A	Presumed Absent: The BSA does not contain marshes, swamps, lake margins, or vernal pools, and lacks clay soils per the NRCS soil report. The nearest presumed extant CNDDDB occurrence is approximately 9.6 miles southeast of the BSA at the Elliot Conservancy (2002). Due to the lack of suitable habitat features and lack of recent species occurrences, this species is presumed absent.
Bristly sedge	<i>Carex comosa</i>	Fed: State: CDFW:	-- -- 2B.1	A perennial grasslike herb native to California, inhabiting lake-margins and edges in freshwater wetlands, coastal prairie, valley grassland, foothill grassland, and wetland-riparian communities. Blooms May to September (0–2,050 feet).	A	Presumed Absent: The BSA contains riparian and disturbed, grassland habitat communities; however, this species prefers habitat that is more commonly wet. There are no CNDDDB or iNaturalist occurrences within 10 miles of the BSA. Due to lack of occurrences and preferred habitat, this species is presumed absent.
Dwarf downingia	<i>Downingia pusilla</i>	Fed: State: CDFW:	-- -- 2B.2	An annual herb inhabiting vernal pools and mesic soils in valley and foothill grassland communities. Flowers March to May (0–1,500 feet).	A	Presumed Absent: The BSA contains disturbed grassland habitat, however there are no recent records of this species nearby. The nearest CNDDDB occurrence is approximately 7.8 miles north of the BSA within vernal pool habitat (1997). Due to lack of suitable habitat and occurrences, this species is presumed absent.
Ferris' milk-vetch	<i>Astragalus tener</i> <i>var. ferrisiae</i>	Fed: State: CDFW:	-- -- 1B.1	An annual herb inhabiting vernal mesic meadows and seeps and subalkaline flats within valley and foothill grassland communities. Known only from six extant occurrences. Flowers April to May (0–250 feet).	A	Presumed Absent: The BSA lacks vernal mesic soils. The disturbed grassland habitat within the BSA may not provide suitable habitat for this species. There is only one historic CNDDDB occurrence within 10 miles of the BSA,

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
					located approximately 7.9 miles southwest of the BSA at the Yolo Causeway (1954). Due to lack of suitable habitat and occurrences, this species is presumed absent.
Heckard's peppergrass	<i>Lepidium latipes</i> <i>var. heckardii</i>	Fed: -- State: -- CDFW: 1B.2	An annual herb found in alkaline flats within valley or foothill grasslands. Flowers March to May (0–660 feet).	A	Presumed Absent: The BSA lacks alkali flats. There are also no CNDDDB occurrences within the 10 miles of the BSA. Due to lack of suitable habitat and occurrences, this species is presumed absent.
Legenere	<i>Legenere limosa</i>	Fed: -- State: -- CDFW: 1B.1	Legenere is not a state or federally listed species but is a CNPS rare plant rank 1B.1 species. Legenere grows in a variety of wetland habitats including vernal pools, vernal marshes, artificial ponds and floodplains of intermittent streams. Occupied vernal pool types include Northern Basalt Flow, northern claypan, northern hardpan, northern volcanic ash-flow and Northern Volcanic Mudflow. The blooming period for this plant species is between May and June. Once approved, legenere will be a covered species under the South Sacramento Habitat Conservation Plan.	A	Presumed Absent: The BSA does not contain wetland or vernal pool habitat. The nearest CNDDDB occurrence is approximately 5.5 miles north of the BSA within wetland habitat (1997). Due to lack of suitable habitat and nearby occurrences, this species is presumed absent.
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	Fed: -- State: -- CDFW: 1B.1	A perennial rhizomatous herb found exclusively in the Sacramento–San Joaquin River Delta and San Francisco Bay. Found in low elevation freshwater and brackish marshes adjacent to surface water. Flowers June to August (0–100 feet).	A	Presumed Absent: The BSA does not contain suitable marsh habitat required for this species. There is only one CNDDDB occurrence within the 10 miles of the BSA located approximately 9.8 miles southwest along the Sacramento Deep Water Ship Channel (2009). Due to a lack of suitable habitat and nearby occurrences, this species is presumed absent.
Pappose tarplant	<i>Centromadia parryi</i> ssp. <i>parryi</i>	Fed: -- State: -- CDFW: 1B.2	An annual herb inhabiting chaparral, coastal scrub, meadows, seeps, marshes, swamps (coastal salt), and valley foothill grasslands	A	Presumed Absent: The BSA lacks alkali soils. There is disturbed grassland habitat present within the BSA, but no

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			often with alkaline soils. Flowers May to November (0–1,375 feet).		individuals of this species were observed during the June 2025 biological survey. There is only one CNDDDB occurrence within 10 miles of the BSA, located approximately 9.8 miles southwest of the BSA (2011). Due to a lack of suitable habitat and nearby occurrences, this species is presumed absent.
Peruvian dodder	<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Fed: -- State: -- CDFW: 2B.2	An annual parasitic vine inhabiting freshwater marsh communities on herbs such as <i>Alternanthera</i> sp., <i>Dalea</i> sp., <i>Lythrum</i> sp., <i>Polygonum</i> sp., and <i>Xanthium</i> sp. Flowers July to October (50–1,640 feet).	A	Presumed Absent: The BSA lacks freshwater marsh habitat. There are no CNDDDB occurrences within 10 miles of the BSA, and no nearby iNaturalist occurrences. Due to lack of suitable habitat and occurrences, this species is presumed absent.
Sacramento Orcutt grass	<i>Orcuttia viscida</i>	Fed: E State: E CDFW: 1B.1	An annual herb inhabiting vernal pools. Flowers April to July (100–330 feet).	A	Presumed Absent: The BSA lacks vernal pool habitat. There are no CNDDDB occurrences within 10 miles of the BSA. Due to a lack of suitable habitat and occurrences, this species is presumed absent.
Slender Orcutt grass	<i>Orcuttia tenuis</i>	Fed: T State: E CDFW: 1B.1	An annual herb inhabiting vernal pools, often within gravelly soils. Flowers May to October (115–5,775 feet).	A	Presumed Absent: The BSA lacks vernal pool habitat and gravelly soils. There are no CNDDDB occurrences within 10 miles of the BSA. Due to a lack of suitable habitat and occurrences, this species is presumed absent.
Saline clover	<i>Trifolium hydrophilum</i>	Fed: -- State: -- CDFW: 1B.2	An annual herb inhabiting mesic, alkaline soils of salt marsh, marshes and swamps, vernal pools, and valley and foothill grasslands. Flowers April to June (0–1,000 feet).	A	Presumed Absent: The BSA lacks alkaline soils. There is some disturbed grassland habitat in the BSA, but no individuals of this species were observed during the June 2025 biological survey. There are no CNDDDB occurrences within 10 miles of the BSA. Due to a lack of suitable habitat and occurrences, this species is presumed absent.

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	Fed: -- State: -- CDFW: 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds, and ditches. Flowers May to October (0–2,130 feet).	A	Presumed Absent: The BSA lacks marsh, swamp, vernal pool, pond, or ditch habitat for this species. The American River is not known to support individuals of this species which prefers smaller water bodies. The nearest CNDDB occurrence is approximately 0.50 miles north of the BSA (1993) across the American River in a flooded ditch along the bike trail. No individuals of this species were observed within the BSA during the June 2025 biological survey. Due to a lack of suitable habitat, this species is presumed absent.
Suisun marsh aster	<i>Symphotrichum lentum</i>	Fed: -- State: -- CDFW: 1B.2	A perennial rhizomatous herb inhabiting wetlands, freshwater marsh, and brackish-marsh communities. Flowers May to November (0–10 feet).	A	Presumed Absent: The BSA lacks wetland and marsh habitat. There is only one CNDDB occurrence within 10 miles of the BSA, located approximately 8.3 miles southwest of the BSA. Due to a lack of suitable habitat and nearby occurrences, this species is presumed absent.
Woolly rose-mallow	<i>Hibiscus lasiocarpus var. occidentalis</i>	Fed: -- State: -- CDFW: 1B.2	A perennial rhizomatous herb inhabiting freshwater wetlands, wet banks, and marsh communities. Often found in between riprap on levees. Flowers June to September (0–400 feet).	A	Presumed Absent: The BSA lacks wetland and marsh habitat. Although the American River has significant banks within the BSA, these banks are not always saturated and were dry at the time of the June 2025 biological survey. The nearest CNDDB occurrence is historic and approximately 4.3 miles northwest of the BSA (1988). No individuals were observed during the June 2025 biological survey. Due to lack of suitable habitat and nearby occurrences, this species is presumed absent.

<p>Federal Designations (Fed): (FESA, USFWS) E: Federally listed, endangered T: Federally listed, threatened DL: Federally listed, delisted</p>	<p>State Designations (CA): (CESA, CDFW) E: State listed, endangered T: State listed, threatened</p>
<p>Other Designations CDFW_SSC: CDFW Species of Special Concern CDFW_FP: CDFW Fully Protected</p> <p>California Native Plant Society (CNPS) Designations: <i>*Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.</i> 1A: Plants presumed extinct in California. 1B: Plants rare and endangered in California and throughout their range. 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range. 3: Plants about which need more information; a review list.</p> <p>Plants 1B, 2, and 4 extension meanings: _1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) _2 Fairly endangered in California (20-80% occurrences threatened) _3 Not very endangered in California (<20% of occurrences threatened, or no current threats known)</p>	
<p>Habitat Potential Absent [A] - No habitat present and no further work needed. Habitat Present [HP] - Habitat is or may be present. The species may be present. Critical Habitat [CH] – Project is within designated Critical Habitat.</p>	
<p>Potential for Occurrence Criteria: Present: Species was observed on site during a site visit or focused survey. High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 miles of the site. Low: Low quality habitat (may include soil and elevation factors) for the species that occurs on site and a known occurrence exists within 5 miles of the site Moderate: Suitable habitat strongly associated with the species occurs on site, but no records were found within the database search. Presumed Absent: Focused surveys were conducted, and the species was not found, or species was found within the database search, but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.</p>	
<p>Source: (CDFW 2025b), (CNPS 2025), (Calflora 2025), (Jepson 2025), (USFWS 2025), (NMFS 2025).</p>	

4. Results: Biological Resources, Discussion of Impacts, and Mitigation

4.1 Habitats and Natural Communities of Special Concern

Habitats are considered to be of special concern based on federal, state, or local laws regulating their development; limited distributions; and/or the habitat requirements of special-status plants or animals occurring on site. Wetlands and WOTUS are also considered sensitive by both federal and state agencies. Within the BSA, the perennial stream channel (American River), riparian woodland and riparian scrub habitats have been identified as natural communities of special concern. Figure 6. Project Impacts outlines the impacts to sensitive habitat communities within the BSA. Project impacts and the associated avoidance, minimization, and mitigation measures for the American River and associated riparian vegetation are discussed in their respective sections below. In addition, the City will be undertaking a 5-acre habitat enhancement project, described in Section 1.1 that will compensate for any Project impacts.

4.1.1 Discussion of American River

The American River originates in eastern Placer County in the Tahoe National Forest. It flows initially to the west and then southwest, passing through Folsom Lake and into the City of Sacramento. The BSA is just upstream of the American River's confluence with the Sacramento River. Flows within this portion of the American River are influenced by water releases generated by the Nimbus Dam regulated by the U.S. Bureau of Reclamation. The American River supports a diverse range of wildlife and serves as a popular destination for recreational activities.

Project Impacts to the American River

No temporary or permanent impacts to the American River are anticipated as a result of construction. All work will be performed above the OHWM of the channel.

Avoidance and Minimization Efforts for American River

The following avoidance and minimization measures will be incorporated into the Project to reduce potential impacts to jurisdictional waters and natural communities of special concern:

BIO-1: Every individual working on the Project must attend a biological awareness training session conducted by the Project biologist. This training program will include information regarding the sensitive habitats and an overview of special-status wildlife species that may be encountered within the work area. During the environmental awareness training, construction personnel will be briefed on the status of the beetle, the need to avoid damage to the elderberry host plant, and the possible penalties for not complying with these requirements.

BIO-2: Prior to the start of construction activities, the Project limits adjacent to the American River and riparian corridor will be marked with flagging, staking, or high visibility fencing to ensure construction will not further encroach into adjacent sensitive resources.

BIO-3: Best Management Practices will be incorporated into Project design and Project management to minimize impacts on the environment including erosion and the release of pollutants (e.g., oils, fuels):



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Source: ESRI Maps Online; Dokken Engineering 8/25/2025; Created By: kjacobson

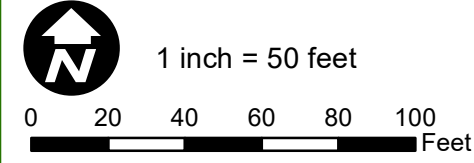


Figure 6
Project Impacts

Sutter's Landing ADA River Access Trail Project
City of Sacramento, Sacramento County, California

- Equipment used in and around jurisdictional waters must be in good working order and free of dripping or leaking contaminants.
- All erosion control measures and storm water control measures will be properly incorporated and maintained.
- All construction materials will be hauled off-site after completion of construction.
- A chemical spill kit must be kept on site and available for use in the event of a spill.

BIO-4: Secondary containment consisting of plastic sheeting or other impermeable material will be used during refueling to prevent petroleum products or other potentially harmful chemicals from contaminating the soil or directly or indirectly entering the American River and associated riparian corridor. Secondary containment must have a raised edge (e.g. sheeting wrapped around wattles).

4.1.2 Discussion of Riparian Woodland

The BSA includes a riparian woodland habitat that encompasses the south bank of the American River. This community is dominated by a variety of native, mature trees including valley oak, box elder, Oregon ash, Fremont cottonwood, northern California black walnut, California sycamore, arroyo willow, and Gooding's willow. The understory is comprised of Himalayan blackberry, California rose, wild grape, and various grasses. Elderberry shrub patches are also common throughout the community. During the June 2025 biological survey, there was a high level of bird activity observed throughout the riparian woodland habitat.

Project Impacts to Riparian Woodland

Construction of the paved trail down to Sutter's Landing Beach as well as the two ADA trails will permanently impact approximately 0.05 acres of riparian woodland habitat. Permanent impacts are due to paving the trail within riparian habitat which will require tree removal and/or trimming. In addition, cut and fill limits associated with the ADA trails will result in approximately 0.05 acres of temporary impacts to riparian woodland habitat (Figure 6).

Avoidance and Minimization Measures for Riparian Woodland

Avoidance and minimization measures **BIO-1 through BIO-4**, along with **BIO-5**, below will be implemented as part of the Project to reduce impacts on riparian woodland habitat. Mitigation will be required for all trees removed with a diameter at breast height (DBH) greater than 4 inches. Final mitigation requirements will be determined in coordination with CDFW during the acquisition of the 1602 Lake and Streambed Alteration Agreement.

BIO-5: After construction, temporary disturbed areas will be re-seeded with native grasses and forbs.

4.1.3 Discussion of Riparian Scrub

In addition to riparian woodland, the south bank of the American River within the BSA also supports riparian scrub habitat. This habitat type typically occurs along waterways and is characterized by dense growth of shrubs and small trees adapted to wet conditions and periodic flooding. Within the BSA, riparian scrub is primarily dominated by narrowleaf willow, which forms

bands along the riverbank. In some areas, an understory of native California blackberry is also present. Riparian scrub covers approximately 0.68 acre of the BSA and extends below the OHWM of the American River.

Project Impacts to Riparian Scrub

No temporary or permanent impacts to riparian scrub habitat are anticipated as a result of the proposed Project.

Avoidance and Minimization Measures for Riparian Scrub

Avoidance and minimization measures **BIO-1 through BIO-5** will be implemented as part of the Project to avoid and minimize impacts on riparian scrub habitat.

4.2 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 site. In addition to field surveys, a list of regional special-status plant species with potential to occur within the Project vicinity was compiled from database searches. The potential for each species to occur within the BSA was determined by analyzing the habitat requirements of each species and comparing the habitat requirements to available habitat within the BSA. After a careful comparison between habitat requirements and the habitat available within the BSA, no special-status plant species have potential to occur within the BSA.

4.3 Special-Status Wildlife 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 wildlife occurring on site. In addition to field surveys, a list of regional special-status wildlife species with potential to occur within the Project vicinity was compiled from database searches. The potential for each species to occur within the BSA was determined by analyzing the habitat requirements of each species and comparing the habitat requirements to available habitat within the BSA. After a careful comparison between habitat requirements and the habitat available within the BSA, ten special-status wildlife species have potential to occur within the BSA.

The BSA also contains >300 elderberry shrubs. This is the host plant for the valley elderberry longhorn beetle (VELB). Exit holes, indicating the presence of VELB, were observed on elderberry shrubs during biological surveys.

4.3.1 Discussion of Monarch Butterfly

The western North American migratory monarch population is generally found west of the Rocky Mountains. These butterflies can migrate annually 300 to 1,000 miles. The western population overwinters in hundreds of groves along the California coast and into northern Baja California, Mexico. Utilizes wind protected tree groves in proximity to nectar and water sources. Host plants include various milkweed as described in Table 2. Suitable foraging habitat includes fields, meadows, weedy areas, marshes, and roadsides containing milkweed and flowering plants. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they lay eggs

exclusively on milkweed plants as that is the only food the caterpillars can eat. Mass adult migrations occur from August to October (Xerces Society 2018).

Potential for Occurrence

During biological survey efforts the species host plant, broadleaf milkweed, was observed within the BSA within the Native Planting Area, which provides suitable breeding habitat for the monarch butterfly. According to the Western Monarch Milkweed Mapper, there are no occurrences of the species within Sutter's Landing Regional Park; however, there is one occurrence located near McKinley Park approximately 0.75 miles south of the BSA (2025). There are no documented CNDDB occurrences of the species within 10 miles. Due to the presence of milkweed on site along with the nearby occurrence, this species has low potential to occur within the BSA.

Potential Impacts to Monarch Butterfly

No impacts to the native planting area within the BSA are proposed, therefore no impacts to milkweed, the monarch butterfly's host plant, are expected. No other milkweed was observed anywhere within the BSA.

Avoidance and Minimization Measures for Monarch Butterfly

Avoidance and minimization measure **BIO-6 and BIO-7** will be implemented to reduce impacts to monarch butterfly and its associated breeding habitat.

BIO-6: The contractor must not apply rodenticide or herbicide within the Project area during construction-related activities.

BIO-7: Individual milkweed (*Asclepias*) plants within the BSA must be protected in place and not removed during construction. If necessary, individual plants may be relocated to an area outside of the Project area.

4.3.2 Discussion of Chinook Salmon–Central Valley Spring-Run ESU

Chinook salmon–Central Valley Spring-Run (CVSR) ESU is listed as threatened under the FESA (70 Federal Register [FR] 37160, June 28, 2005) and is under the jurisdiction of NMFS. Chinook salmon–CVSR ESU are anadromous fish that spend part of their life cycle in freshwater and part in salt water. Adults typically leave the ocean between January and May, entering freshwater from March to July. After migrating up rivers, they hold in deep pools with cool, well-oxygenated water during the summer months before spawning in the fall, usually between September and October. Eggs hatch in late fall or early winter, and the fry emerge from the gravel nests (redds) about 4 to 6 weeks later. Juvenile Chinook salmon–CVSR ESU typically spend 3 to 12 months in freshwater before migrating downstream through the Sacramento River system and into the Delta, eventually reaching the ocean. Once in the ocean, they mature over a period of 2 to 4 years before returning to their natal streams to spawn and complete their life cycle (NOAA 2025).

Historically, Chinook salmon–CVSR ESU were abundant in the rivers and tributaries of the Sacramento and San Joaquin River systems. Population numbers have drastically declined due to habitat loss, water diversions, and barriers such as dams. Many populations were thought to be extirpated from the San Joaquin River, but restoration efforts have led to the reintroduction of

small populations in some tributaries. Upon entering freshwater, salmon hold in deep pools until flows increase enough to allow access to upstream spawning areas.

Chinook salmon–CVSR ESU are semelparous, meaning they die after spawning once. The species can tolerate a range of water temperatures, but optimal holding temperatures range between 52°F to 60°F, while ideal temperatures for egg incubation and juvenile rearing range from 50°F to 55°F (NOAA 2025).

Potential for Occurrence

The Lower American River is known to support this species and is designated as Critical Habitat for the species. The Nimbus Fish Hatchery, located in Folsom, California, also raises Chinook Salmon–CVSR ESU for release into the American River. The only CNDDDB occurrence in the 10-mile buffer is located approximately 4.1 miles southwest within the Sacramento River Deep Water Ship Channel; however, there are other records from CDFW of this species within the American River. This species is presumed present within the American River.

Potential Impacts to Chinook Salmon–CVSR ESU

Construction work for the Project will primarily occur within riparian habitat, outside of suitable aquatic habitat for the species. No dewatering or in-water work is proposed as part of the trail construction, as work will be scheduled during periods of low water levels in accordance with measure **BIO-8** described below. In addition, during the June 2025 biological survey, the mapped OHWM of the American River was observed to be dry and inaccessible to Chinook salmon–CVSR ESU.

The adjacent riparian woodland is considered essential fish habitat (EFH) for Chinook salmon–CVSR ESU, as it plays a crucial role in providing shade, stabilizing the bank, and provides a source of food and shelter for juvenile Chinook salmon–CVSR ESU. Temporary removal of riparian vegetation may reduce shading, elevate water temperatures, and destabilize the riverbank, collectively diminishing habitat quality for Chinook salmon–CVSR ESU.

Construction activities associated with the Project have the potential to indirectly impact Chinook salmon–CVSR ESU. Direct impacts, such as physical injury or mortality, are not anticipated, as no in-water work or dewatering will occur. If any fish are present within the adjacent American River during construction of the Project, construction-related noise and vibration, particularly from heavy equipment, may disrupt migration routes or spawning behavior, potentially resulting in delayed migration, habitat avoidance, or unsuccessful reproduction. Additionally, accidental spills of fuel or other contaminants could degrade water quality.

Informal Section 7 consultation under the FESA may be required for this species. Implementation of species-specific avoidance and minimization measures, as well as compliance with all measures prescribed by the NMFS in the final Biological Opinion, will reduce potential impacts to Chinook salmon–CVSR ESU and their habitat to the extent feasible.

Avoidance and Minimization Measures for Chinook Salmon–CVSR ESU To avoid direct and indirect effects of the Project on Chinook Salmon Central Valley Spring-Run ESU, the following measure will be implemented.

BIO-8: Work within or near the American River will be scheduled during periods of low water levels or within designated in-water work windows as determined through consultation with the National Marine Fisheries Service.

4.3.3 Discussion of Chinook Salmon–Sacramento River Winter-Run ESU

The Chinook salmon–Sacramento River Winter-Run (SRWR) ESU is listed as endangered under FESA (59 FR 440, June 28, 1994) and is under the jurisdiction of the NMFS. Chinook salmon–SRWR ESU are anadromous fish, meaning they migrate between freshwater and salt water during their life cycle. Adults typically leave the ocean between November and May, entering freshwater from December through early July. After migrating upriver, they hold in deep, cold-water pools with high oxygen levels during the summer months before spawning in the late summer, usually between May and August. Their eggs incubate in the gravel beds and hatch in late summer or early fall, with fry emerging from the redds about 4 to 6 weeks later. Juvenile Chinook salmon–SRWR ESU typically spend 5 to 10 months in fresh water before migrating downstream through the Sacramento River system and into the Delta, eventually reaching the ocean. Once in the ocean, they mature over a period of 2 to 4 years before returning to their natal streams to spawn and complete their life cycle (NOAA 2014).

Historically, Chinook salmon–SRWR ESU were abundant in the upper Sacramento River and its cold-water tributaries, particularly areas that are now blocked by Shasta and Keswick Dams. Their populations have drastically declined due to habitat loss, water diversions, and migration barriers.

Unlike other Chinook salmon runs, Chinook salmon–SRWR ESU rely on the cold-water releases from Shasta Reservoir to sustain their summer holding and spawning periods, as they require cooler water temperatures for successful reproduction. Restoration efforts, such as the use of the Livingston Stone National Fish Hatchery and habitat enhancement projects, have aimed to stabilize and support the remaining populations. Upon entering fresh water, Chinook salmon–SRWR ESU hold in deep pools until suitable spawning conditions become available in the upper Sacramento River.

SRWR Chinook salmon are semelparous, meaning they die after spawning once. The species can tolerate a range of water temperatures, but optimal holding temperatures range between 50°F to 58°F, while ideal temperatures for egg incubation and juvenile rearing range from 50°F to 55°F (NOAA 2014).

Potential for Occurrence

The Lower American River is known to support this species. The Nimbus Fish Hatchery, located in Folsom, California, also raises Chinook Salmon–SRWR ESU for release into the American River. The only CNDDDB occurrence in the 10-mile buffer is located approximately 4.1 miles southwest within the Sacramento River Deep Water Ship Channel; however, there are other records from CDFW of this species within the American River. This species is presumed present within the American River.

Potential Impacts to Chinook Salmon–SRWR ESU

Construction work for the Project will primarily occur within riparian habitat, outside of suitable aquatic habitat for the species. No dewatering or in-water work is proposed as part of the trail

construction, as work will be scheduled during periods of low water levels in accordance with measure **BIO-8**. In addition, during the June 2025 biological survey, the mapped OHWM of the American River was observed to be dry and inaccessible to Chinook salmon–SRWR ESU.

The adjacent riparian woodland is considered EFH for Chinook salmon–SRWR ESU, as it plays a crucial role in providing shade, stabilizing the bank, and provides a source of food and shelter for juvenile Chinook salmon–SRWR ESU. Temporary removal of riparian vegetation may reduce shading, elevate water temperatures, and destabilize the riverbank, collectively diminishing habitat quality for Chinook salmon–SRWR ESU.

Construction activities associated with the Project have the potential to indirectly impact Chinook salmon–SRWR ESU. (Direct impacts, such as physical injury or mortality, are not anticipated, as no in-water work or dewatering will occur.) If any fish are present within the adjacent American River during construction of the Project, construction-related noise and vibration, particularly from heavy equipment, may disrupt migration routes or spawning behavior, potentially resulting in delayed migration, habitat avoidance, or unsuccessful reproduction. Additionally, accidental spills of fuel or other contaminants could degrade water quality.

Informal Section 7 consultation under the FESA may be required for this species. Implementation of species-specific avoidance and minimization measures, as well as compliance with all measures prescribed by the NMFS in the final Biological Opinion, will reduce potential impacts to Chinook salmon–SRWR ESU and their habitat to the extent feasible.

Avoidance and Minimization Measures for Chinook Salmon–SRWR ESU

Avoidance and minimization measures **BIO-8** will serve to protect water quality and reduce potential impacts to the Chinook Salmon–SRWR ESU.

4.3.4 Discussion of Northwestern Pond Turtle

The northwestern pond turtle (NWPT; *Actinemys marmorata*) is a freshwater turtle that occurs in northern California south along the Sierra Nevada Mountains and the Coast Range down to Monterey and Kern Counties. The species is semi-aquatic, requiring both aquatic and terrestrial habitats that are within proximity and connected to one another. NWPTs occur in a range of permanent and ephemeral water bodies in a variety of habitat types ranging from urban to rural. Aquatic habitat such as ponds, lakes, rivers, streams, creeks, marshes, wetlands and irrigation ditches are required by the species for breeding, foraging, overwintering, basking and sheltering. Preferred aquatic habitats have abundant basking sites, underwater shelter sites (undercut banks, submerged vegetation, mud, rocks and/or logs), and standing or slow-moving water. Upland terrestrial habitat is required for nesting, aestivation, basking and dispersal. Suitable upland habitat is characterized by having sparse vegetation with short grasses and little to no canopy cover to allow for exposure to direct sunlight (USFWS 2023). Essential habitat components for NWPT consist of aquatic habitat, upland habitat and basking sites. NWPTs engage in both emergent and aquatic basking, which is essential for thermoregulation and physiological functions such as metabolism, digestion, reproduction and growth. Emergent basking takes place on logs, rocks, emergent vegetation, shorelines and other substrate located within and/or adjacent to aquatic habitat. Aquatic basking takes place in shallow waters or in submerged vegetation (USFWS 2023). The NWPT is known to exhibit courtship behaviors from April through November

with nesting occurring from late May until the middle of July. Gravid female turtles leave the water and move into upland habitats to excavate a nest in compact, dry soils that are 3 to 400 meters from water. In northern California, hatchlings overwinter in the nest chamber and emerge in spring to begin migration from their nests to aquatic habitat (Holland 1994).

The NWPT was federally proposed to be listed as a threatened species on October 3, 2023, under FESA (88 FR 68370). Extensive land conversion from agricultural and urban development has fragmented and degraded aquatic and upland habitat for the species throughout its range. Impacts of development include increased channelization and siltation, a reduction in aquatic vegetation and fewer or less favorable basking sites (USFWS 2023). Competition for basking sites and food resources with invasive species such as the red-eared slider also threatens the NWPT.

Potential for Occurrence

Although NWPT is known to occur within the American River, the river channel present within the BSA is not preferred habitat by the species due to fast-moving flows, as well as a lack of basking habitat (logs, rocks, cattail mats) and emergent vegetation. The nearest documented CNDDB occurrence of the species is approximately 5.6 miles northeast of the BSA at Don Julio Creek at the McClellan Air Base, recorded in 1995. There is also a recent iNaturalist occurrence of the species directly east of the BSA in which a pond turtle was observed basking on downed tree branches in the river (2021). However, there is more basking habitat available upstream and downstream of the BSA. Due to the nearby presence of suitable habitat, this species has a low potential to occur. No individuals were observed within the BSA during the June 2025 biological survey.

Potential Impacts to NWPT

Construction activities associated with the Project, particularly below the OHWM of the American River and within the riparian corridor, such as grading, vegetation clearing, equipment staging, and temporary access could disturb or degrade potential nesting sites, or temporarily disturb areas used by turtles for dispersal or foraging. While the immediate BSA is not ideal turtle habitat, individuals could still pass through from higher-quality habitat upstream. With proper avoidance measures such as pre-construction clearance surveys and biological monitoring these potential impacts can be effectively minimized. Construction activities may temporarily impact potentially suitable upland habitat for the northwestern pond turtle.

Avoidance and Minimization Measures for NWPT

To avoid direct and indirect effects of the Project on the NWPT, the following measure will be implemented.

BIO-9: The Project biologist will complete a clearance survey for northwestern pond turtle immediately prior to initiating work near the American River as well as initiating clearing/grubbing in the riparian corridor.

If a northwestern pond turtle is encountered during construction activities, construction activities will be suspended in a 100-foot radius of the animal until the animal leaves the Project site on its own volition. If necessary, the Project biologist will notify the Wildlife Agencies to determine the

appropriate procedures related to relocation. Any worker who inadvertently injures or kills a northwestern pond turtle or who finds one dead, injured, or entrapped must immediately report the incident to the Project biologist.

4.3.5 Discussion of Purple Martin

The purple martin (*Progne subis*) is not a state or federally listed species but is a CDFW species of SSC. Purple martin migrates and is present in California during the summer. This species can inhabit valley foothills and montane hardwood/hardwood-conifer, coniferous, or riparian habitats. Purple martin prefers nesting in tall, old, isolated trees or snags, or former woodpecker cavities in open forest or woodland in proximity to a body of water and is associated with closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. The species also frequently nests within former woodpecker cavities and may nest in human-made structures such as nesting boxes, under bridges and in culverts.

Potential for Occurrence

The BSA contains riparian woodland habitat and is adjacent to the American River which may provide suitable foraging habitat for the species. Although purple martins may occur within the BSA, nesting is unlikely due to their reliance on human-made structures for nesting within Sacramento and Placer Counties. Additionally, no individuals were observed during the June 2025 biological survey. However, there are two iNaturalist records from 2015 and 2017 document the species within Sutter's Landing Regional Park, which borders the BSA. These records indicate individuals were foraging (flying over) the area, not nesting. The nearest CNDDDB occurrence is located approximately 2 miles northeast of the BSA, at the El Camino Overpass in which the birds were nesting in weep holes in the overpass (2003). Based on the suitable foraging habitat and nearby occurrences, this species has a low potential to occur within the BSA.

Potential Impacts to Purple Martin

In Sacramento, purple martins often nest in crevices under elevated freeway structures or in large cavities in standing trees. The purple martin has the potential to occur within snags, or mature trees within the BSA. Vegetation removal required for trail construction includes trimming and/or removal of trees within riparian woodland habitat, which could result in the loss of potential nesting or roosting sites, as well as reduce foraging habitat by altering insect-rich open space adjacent to the river. To minimize potential impacts, pre-construction nesting bird surveys should be conducted to identify and protect any active nests in compliance with the MBTA.

Avoidance and Minimization Measures to Purple Martin

To avoid direct and indirect effects of the Project on the purple martin, the following measure will be implemented.

BIO-10: If vegetation removal or ground disturbance is planned to occur during the nesting season (February 1st–August 31st), the Project biologist will conduct a pre-construction nesting bird survey within 5 days prior to vegetation removal or ground disturbance. Within 2 weeks of the nesting bird survey, all vegetation cleared by the Project biologist will be removed from the Project site.

If an active nest is discovered, the Project biologist will determine the appropriate no-work buffer. The buffer will remain in place until after the young have fledged, as determined by the Project

biologist. Alternatively, the buffer may be removed if the Project biologist determines the nest is no longer active (e.g., predated, failed, abandoned, etc.).

4.3.7 Discussion of Steelhead–California Central Valley DPS

Steelhead–California Central Valley (CCV) DPS is listed as threatened under FESA (63 FR 13347, March 19, 1998) and is under the jurisdiction of NOAA Fisheries. This DPS consists of steelhead in the Sacramento and San Joaquin River basins in the Central Valley. Steelhead Steelhead–CCV DPS are anadromous fish that spend part of their life cycle in freshwater and part in salt water. The species was once abundant in California coastal and Central Valley drainages. Population numbers have declined significantly, especially in the tributaries of the Sacramento River (NOAA 2014). The species spawns in small, freshwater streams where the young remain from one to several years before migrating to the ocean to feed and grow. Adults return to their natal streams to spawn and complete their life cycle. Juvenile steelhead–CCV DPS typically migrate to marine waters after spending two years in cool, clear, fast-flowing permanent streams and rivers where they reside for 2 or 3 years prior to returning to their natal stream to spawn at 4 or 5 years old (Williams 2006). All steelhead–CCV DPS today are winter-run fish, beginning their upstream migrations to freshwater during peak flows between December and February. Upon entering fresh water, they remain until flows are high enough in tributaries to enter for spawning. Spawning typically occurs from February to April (California Trout 2022). Steelhead–CCV DPS may survive a wide temperature gradient, but optimal immigration and holding temperatures are 46°F to 52°F and optimal growing temperatures for juveniles are 59°F to 64.4°F (NOAA 2014).

Potential for Occurrence

The Lower American River is known to support this species and is designated as Critical Habitat for the species. The Nimbus Fish Hatchery, located in Folsom, California, also raises steelhead–CCV DPS for release into the American River. Due to the presence of habitat and known occurrence, this species is presumed present.

Project Impacts to Steelhead–CCV DPS

Construction work for the Project will primarily occur within riparian habitat, outside of suitable aquatic habitat for the species. No dewatering or in-water work is proposed as a result of the trail construction, as work will be scheduled during periods of low water levels in accordance with measure **BIO-8**. In addition, during the June 2025 biological survey, the impacted area within the American River was observed to be dry and inaccessible to steelhead–CCV DPS.

Construction activities associated with the Project have the potential to indirectly impact steelhead–CCV DPS. (Direct impacts, such as physical injury or mortality, are not anticipated, as no in-water work or dewatering will occur.) If any fish are present within the adjacent American River during construction of the Project, construction-related noise and vibration, particularly from heavy equipment, may disrupt migration routes or spawning behavior, potentially resulting in delayed migration, habitat avoidance, or unsuccessful reproduction. Additionally, accidental spills of fuel or other contaminants could degrade water quality. Temporary removal of riparian

vegetation may reduce shading, elevate water temperatures, and destabilize the riverbank, collectively diminishing habitat quality for steelhead–CCV DPS.

Informal Section 7 consultation under the FESA may be required for this species. Implementation of species-specific avoidance and minimization measures, as well as compliance with all measures prescribed by the NMFS in the final Biological Opinion, will reduce potential impacts to steelhead and their habitat to the extent feasible.

Avoidance and Minimization Measures for Steelhead–CCV DPS

Avoidance and minimization measures **BIO-8** will serve to protect water quality and reduce potential impacts to steelhead–CCV DPS.

4.3.8 Discussion of Swainson’s Hawk

Swainson’s hawk (*Buteo swainsoni*) is a raptor species listed as threatened under CESA. This species migrates annually from wintering areas in South America to breeding locations in northwestern Canada, the western U.S., and Mexico. In California, Swainson’s hawk nest throughout the Sacramento and San Joaquin Valley in large trees in riparian habitats and in isolated trees in or adjacent to agricultural fields. The breeding season extends from late March through late August, with peak activity from late May through July (England et al. 1997). Swainson’s hawks forage in large, open agricultural habitats, including alfalfa and hay fields. The breeding population in California has declined by an estimated 91% since 1900; this decline is attributed to the loss of riparian nesting habitats and the conversion of native grassland and woodland habitats into agriculture and urban development (CDFG 1994).

Potential for Occurrence

During the June 2025 biological survey, at least two Swainson’s hawks were observed soaring over the American River and adjacent riparian habitat. No active nests were observed within the BSA. The BSA includes riparian woodland and open areas with tall, scattered trees and sparse understory, providing suitable foraging habitat. There is one CNDDDB occurrence of the species documented within the BSA in which a nest was observed in a large cottonwood tree from 2008–2011. There are also six iNaturalist occurrences of the species within Sutter’s Landing Park directly adjacent to the BSA, with the most recent recorded in April 2025. Due to the presence of suitable habitat, abundance of local occurrences and the species observation during survey efforts, this species has a high potential to occur within the BSA during the nesting bird season.

Potential Impacts to Swainson’s Hawk

Vegetation removal required for trail construction includes trimming and/or removal of trees within the riparian woodland habitat, which could result in the loss of potential nesting sites for the species. In addition, if Swainson’s hawks are nesting near the BSA, this may result in temporary increase in noise, vibration and human presence, including construction equipment. To minimize potential impacts and avoid take of the species, pre-construction Swainson’s hawk protocol-level surveys will be performed to identify and protect any active nests.

Avoidance and Minimization Measures for Swainson’s Hawk

To avoid direct and indirect effects of the Project on the Swainson's hawk, the following measure will be implemented.

BIO-11: During the spring/summer season prior to construction the Project biologist must conduct pre-construction Swainson's hawk protocol-level surveys within the Project area plus a 0.25 mile buffer in accordance with California Department of Fish and Wildlife's guide for Swainson's Hawk Technical Advisory Committee. Pre-construction surveys will determine if active nests are present within the Project area or within 0.25 mile of Project activities. If an active nest is discovered within the survey area the Project biologist will determine the appropriate avoidance strategies (e.g., monitoring, no-work buffers, work windows, temporary sound/noise barriers, etc.) to avoid take of the nest and will coordinate with CDFW as needed.

4.3.9 Discussion of Valley Elderberry Longhorn Beetle

The VELB (*Desmocerus californicus dimorphus*) is a federally protected species endemic to California's Central Valley. It plays a crucial role in the ecosystem by pollinating and dispersing seeds of the elderberry plant (*Sambucus spp.*). Elderberry shrubs are obligate hosts for VELB larvae. Elderberry shrubs are often associated with species common to the riparian forests and adjacent uplands in the Central Valley and foothills the elderberry inhabits, such as, cottonwood (*Populus spp.*), willow, ash (*Fraxinus spp.*), oak (*Quercus spp.*), and walnut (*Juglans spp.*) (Barr 1991). The VELB's range has been reduced and greatly fragmented due to a loss of elderberry inhabited communities, most especially riparian habitat loss. Habitat loss is derived from agricultural development, urbanization, levee maintenance, and pesticide drift where aerial application or fogging of crops occurs near riparian habitats (USFWS 1984 and Barr 1991). Adult VELB feed on elderberry foliage and are present from March through early June. During this time, the adults mate within the canopy and females lay their eggs, either singularly or in small clusters, in living elderberry bark crevices or at the junction of stem/trunk or leaf petiole/stem (Barr 1991). After eggs hatch, the first instar larvae burrow into the host elderberry stems to feed on pith for one to two years. As the larvae become ready to pupate, it chews outward from the center of the stem through the bark. After the larvae plugs the newly constructed emergent hole with shavings, it returns to the pupal chamber to metamorphose and will emerge in mid-March through June as adults. Elderberry stems with emergence holes indicate current and/or previous VELB presence. VELB utilize stems greater than 1-inch diameter and produce circular to oval emergent holes 7 to 10 millimeters in diameter with the majority occurring 4 feet or less above the ground (Barr 1991).

Critical Habitat for the species was designated by the USFWS on August 8, 1980 (45 FR 52803). The BSA does not encompass Critical Habitat for this species, therefore no impacts to VELB Critical Habitat will result from the Project.

Potential for Occurrence and Survey Results

In accordance with the Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017), the riparian woodland habitat inland and on the banks of the American River within the BSA provides suitable habitat for VELB. During the biological survey >300 elderberry shrubs were identified within the BSA (Figure 7. Elderberry Shrub Impacts). Exit holes were observed in most shrubs, indicating the current or historic presence of VELB. Due to the presence of suitable habitat and observance of exit holes, this species is presumed to be present within the BSA.

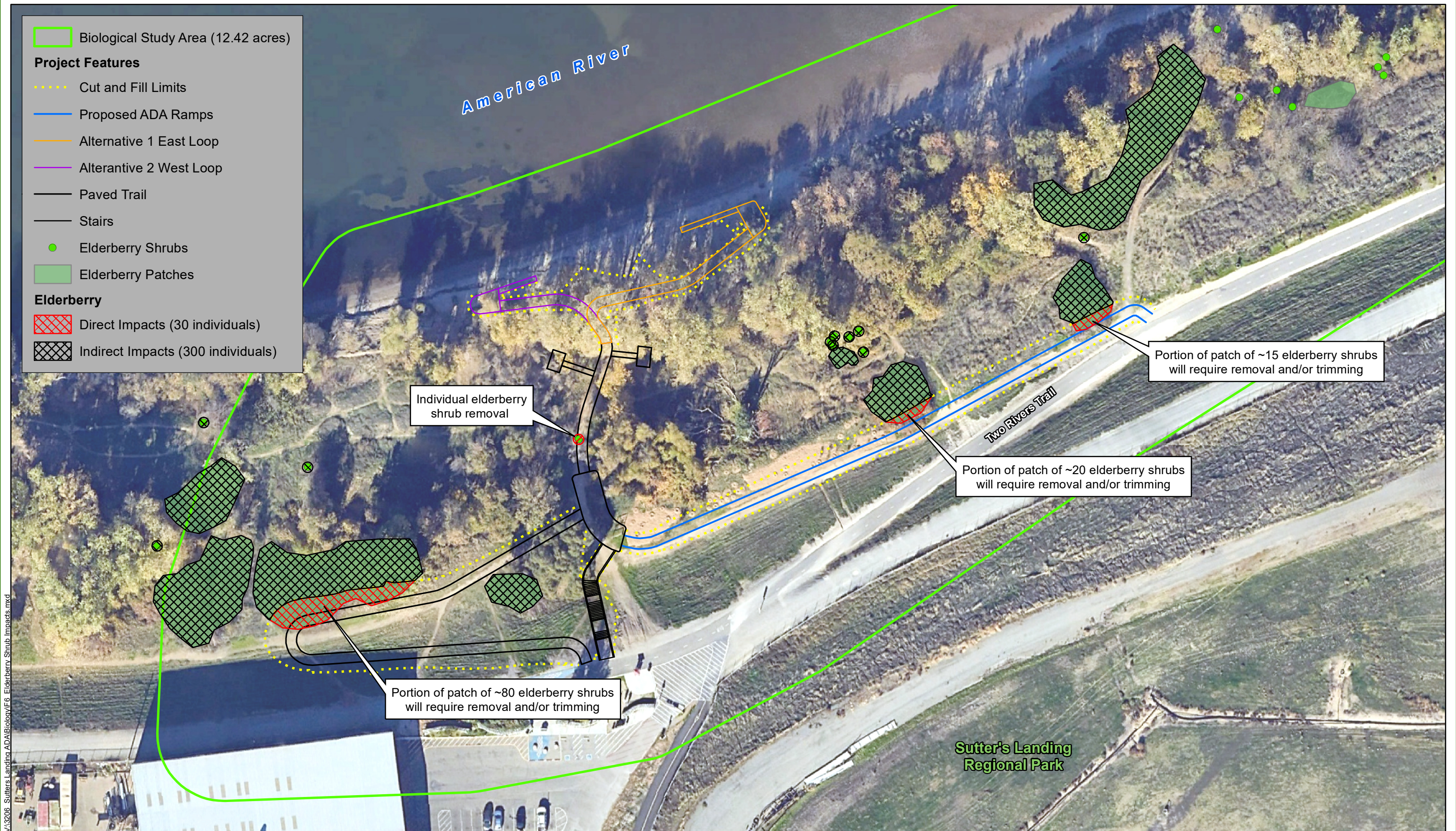
Biological Study Area (12.42 acres)

Project Features

- Cut and Fill Limits
- Proposed ADA Ramps
- Alternative 1 East Loop
- Alternative 2 West Loop
- Paved Trail
- Stairs
- Elderberry Shrubs
- Elderberry Patches

Elderberry

- Direct Impacts (30 individuals)
- Indirect Impacts (300 individuals)



V:\3206 Sutters Landing ADA\Biolog\F6 Elderberry Shrub Impacts.mxd

Source: ESRI Maps Online; Dokken Engineering 7/17/2025; Created By: kjacobson

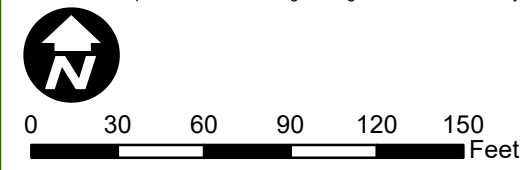


Figure 7
Elderberry Shrub Impacts

Sutter's Landing ADA River Access Trail Project
City of Sacramento, Sacramento County, California

Potential Impacts on Valley Elderberry Longhorn Beetle

The Project will result in direct impacts to elderberry shrubs including removal of one shrub and a portion of three elderberry clusters (approximately 30 individuals), all over 1-inch diameter as a result of the proposed trail construction and associated cut and fill. The Project will have indirect impacts on several patches and individual elderberry shrubs (approximately 300 shrubs) in the riparian areas due to the shrubs being located within 165 feet of Project activities (Figure 7). These indirect impacts may include increased dust, vibration, soil compaction, accidental encroachment from equipment, and root zone disturbance. Furthermore, construction noise and increased human presence may alter microhabitat conditions near these shrubs, potentially affecting the beetle's lifecycle or dispersal. Formal Section 7 consultation under the FESA will be required for this species.

Table 3. Impacts to VELB Habitat

Impact Type	Habitat Type	No. of Shrubs	Mitigation Ratio
Direct	Riparian	30	3:1
Indirect	Riparian	300	2:1

Avoidance and Minimization Measures for VELB

To avoid direct and indirect effects of the Project on VELB, measure **BIO-6** will be implemented. In addition, the following measure will be implemented and Section 7 consultation with USFWS will be initiated.

BIO-12: To avoid and minimize adverse effects to VELB, removal or trimming of elderberry shrubs will occur between November and February.

BIO-13: Prior to initiating construction, an ESA fence will be installed with a 20-foot buffer around elderberry shrubs that will be protected in place within or adjacent to the Project area if the outer edges of their outer dripline extend within 20 feet of the Project impact area. The ESA will be positioned as far from the shrubs as practicable and will be installed under the direction of a USFWS-approved biologist.

BIO-14: To prevent fugitive dust from drifting into adjacent habitat, all clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, demolition activities, or other dust generating activities will be effectively controlled for fugitive dust emissions utilizing application of water or by presoaking.

BIO-15: A USFWS-approved biologist will be present to oversee all elderberry shrub relocation, trimming or removal.

BIO-16: No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant will be used within 100 feet of elderberry shrubs with one or more stems measuring one inch or greater in diameter at ground level.

BIO-17: In accordance with the American River Parkway Plan, any elderberry shrub that the

project cannot avoid must be excavated and relocated to a suitable area within the American River Parkway. Additional elderberry seedlings and associated native plants must be planted at a ratio prescribed in Table 3.

4.3.10 Discussion of White-Tailed Kite

The white-tailed kite (*Elanus leucurus*) is not a state or federally listed species but is a fully protected species under CDFW. The white-tailed kite is a year-round species of California and occurs in coastal and valley lowlands, most often in association with agricultural areas. The white-tailed kite forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands and seldom hunt more than 0.5 miles from nest while breeding. Breeding occurs from February to October, preferably in isolated, dense-topped trees close to open grasslands, meadows or marsh foraging sites (Zeiner 1990).

Potential for Occurrence

Although white-tailed kite was not observed during biological surveys, the species has a high potential to occur within the BSA. The BSA contains potentially suitable nesting and foraging habitat, as well as abundant habitat adjacent to the BSA. The nearest CNDDDB occurrence is located approximately 0.63 miles northeast of the BSA along the north bank of the American River in which a nest was observed within a cottonwood tree. The nearest, most recent CNDDDB occurrence is approximately 4.25 miles southwest of the BSA in which an individual was nesting in a residential neighborhood (2017). There is also a recent iNaturalist occurrence of the species in the BSA in which the species was perched in a tree (2017), as well as three additional occurrences recorded in Sutter's Landing Regional Park between 2017 and 2024. Due to the presence of potentially suitable habitat and local occurrences, this species has a high potential to occur.

Potential Impacts to White-tailed Kite

Vegetation removal required for trail construction includes trimming or removal of mature trees within the riparian woodland habitat, which could result in the loss of potential nesting sites for the species. In addition, if white-tailed kites are nesting near the BSA, this may result in temporary increase in noise, vibration and human presence, including construction equipment. To minimize potential impacts and avoid take of the species, pre-construction nesting bird surveys, including a 0.5 mile buffer for raptors, will be performed to identify and protect any active nests.

Avoidance and Minimization Measures for White-tailed Kite

In order to avoid and minimize Project-related impacts to the white-tailed kite, measure **BIO-10** will be implemented prior to construction.

5. Conclusions and Regulatory Determinations

5.1 Federal Endangered Species Act Consultation Summary

An official list of federally listed plant and wildlife species was obtained from USFWS on June 30, 2025 (Appendix A). The database search returned eight federally listed wildlife species that may occur within the vicinity of the Project. In addition, an official list of federally listed fish species was obtained from NMFS on June 6, 2025 (Appendix D). The database search returned four federally listed fish species that may occur within the Sacramento East Quadrangle. Table 4. Federally Listed Species Determinations lists these species, their potential to occur within the BSA, their status, and the Project determination for effects on those species with potential to occur. Two species, NWPT and monarch butterfly, have low potential to occur within the BSA while four species are presumed present: CVSR Chinook salmon–CVSR ESU, Chinook salmon–SRWR ESU, steelhead–CCV DPS and VELB. Informal consultation with NMFS may be required for Chinook salmon–CVSR ESU, Chinook salmon–SRWR ESU and steelhead–CCV DPS. Formal consultation with USFWS will be required for VELB. The Section 7 consultation lead will be USACE.

Upon official listing of the monarch butterfly and NWPT under FESA, informal Section 7 consultation may be required with USFWS.

Table 4. Federally Listed Species Determinations

Species Name	Federal Status	Potential	Determination
Delta smelt (<i>Hypomesus transpacificus</i>)	Threatened	Absent	No Effect
Green sturgeon–southern DPS (<i>Acipenser medirostris</i> pop. 1)	Threatened	Absent	No Effect
Northwestern pond turtle (<i>Actinemys marmorata</i>)	Proposed Threatened	Low Potential	No determination at this time
Chinook salmon–California Central Valley spring-run ESU (<i>Oncorhynchus tshawytscha</i> pop. 11)	Threatened	Presumed Present/Critical Habitat	May Affect, Not Likely to Adversely Affect
Chinook salmon–Sacramento River winter-run ESU (<i>Oncorhynchus tshawytscha</i> pop. 7)	Endangered	Presumed Present	May Affect, Not Likely to Adversely Affect
Western spadefoot (<i>Spea hammondi</i>)	Proposed Threatened	Absent	No Effect
Longfin smelt–San Francisco Bay Delta DPS (<i>Spirinchus thaleichthys</i> pop.2)	Endangered	Absent	No Effect
Monarch butterfly (<i>Danaus plexippus</i>)	Candidate	Low Potential	No determination at this time
Steelhead–Central Valley DPS (<i>Oncorhynchus mykiss irideus</i> pop. 11)	Threatened	Presumed Present/Critical Habitat	May Affect, Not Likely to Adversely Affect
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	Threatened	Presumed Present	May Affect, Likely to Adversely Affect
Vernal pool fairy shrimp (<i>Brachinecta lynchi</i>)	Threatened	Absent	No Effect
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	Endangered	Absent	No Effect

5.2 Essential Fish Habitat Consultation Summary

Essential fish habitat is defined as waters and substrate necessary for fish spawning, breeding, feeding, and growth to maturity (Magnuson-Stevens Fishery Conservation and Management Act §3). According to the National Oceanic and Atmospheric Administration habitat conservation Essential Fish Habitat View Tool, the BSA falls within an area that is considered essential fish habitat for both CVSR and SRWR Chinook salmon and Groundfish (NOAA 2025). As part of trail construction, the Project may require removal of large riparian trees and vegetation along the American River, which currently provide important shade and bank stability functions. The loss of this vegetation could result in increased solar exposure, leading to localized increases in water temperature, which may adversely affect the thermal suitability of habitat for juvenile Chinook salmon species. Additionally, removal of vegetation may contribute to reduced input of large woody debris, decreased cover for predator avoidance, and potential changes to near-bank aquatic invertebrate communities, thereby impacting food resources and shelter critical for fish development.

While removal of riparian trees and vegetation along the American River may reduce shade, woody debris input, and bank stability, these effects are not expected to measurably alter aquatic habitat conditions within designated EFH for Chinook salmon. No direct impacts to the American River, which provides aquatic EFH, are anticipated. With implementation of avoidance and minimization measures, adverse effects to EFH are not expected, and EFH consultation is not anticipated to be required.

5.3 Wetlands and Other Waters Coordination Summary

Under Section 401 and Section 404 of the CWA, certain surface waters are regulated by USACE and the RWQCB. CDFW also claims jurisdiction over the bed, bank and channel of waters and associated riparian vegetation. The BSA encompasses the American River, a stream channel that is a jurisdictional water feature pursuant to the CWA and CDFW. No temporary or permanent impacts to the American River are anticipated as a result of the Project. Potential indirect impacts will be avoided to the greatest extent feasible with implementation of avoidance and minimization measures BIO-1 through BIO-4.

Prior to working near the river, the City will obtain a Section 1602 permit from CDFW, a 401 Water Quality Certification from RWQCB, and a 404 NWP from USACE.

5.4 Invasive Species

In February 1999, EO 13112 was signed, requiring federal agencies to work on preventing and controlling the introduction and spread of invasive species. Measure **BIO-18** will be incorporated into the Project to ensure that invasive species are not introduced or spread.

BIO-18: To prevent the spread of noxious weeds, all construction equipment that may accumulate excessive vegetation, debris, or mud containing invasive plant material or seeds shall be thoroughly cleaned before arriving at and upon leaving the Project site.

5.5 Other

5.5.1 General Wildlife

To minimize and avoid potential effects to local wildlife, the following measures **BIO-19** through **BIO-21** will be incorporated into the Project.

BIO-19: All food-related trash shall be placed into secure, closed containers and disposed of off-site. Construction personnel must not feed or otherwise engage in activities that attract wildlife to the Project area.

BIO-20: If any wildlife is encountered during construction, said wildlife will be allowed to leave the construction area unharmed.

BIO-21: The use of plastic or synthetic monofilament netting is prohibited. All erosion control materials will be comprised of natural fibers.

6. References

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Appendix A: USFWS Species List



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:

06/30/2025 21:17:19 UTC

Project Code: 2025-0116006

Project Name: Sutter's Landing ADA Access Trail 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: 2025-0116006

Project Name: Sutter's Landing ADA Access Trail Project

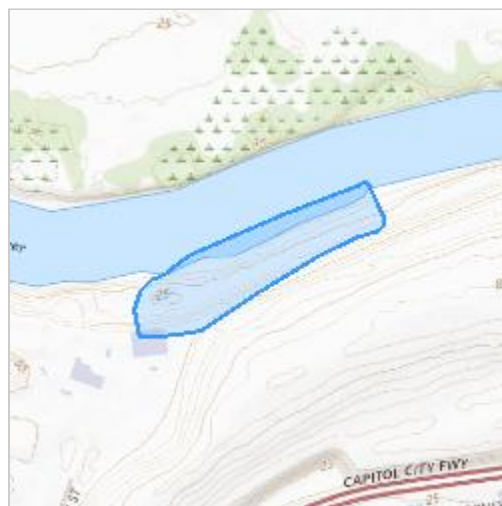
Project Type: Recreation - New Construction

Project Description: In an area south of the 28th & B Street Skate Park, the City is planning to construct a concession stand that will include paddleboard and kayak rentals. Sutter's Landing Beach is anticipated to be the launch site for people utilizing these rentals; however, the current access is informal and not ADA-compliant. The purpose of the Sutters Landing Park ADA River Access Trail Project (Project) is to establish a formalized ADA-compliant access path for recreational users to easily reach Sutter's Landing Beach. The proposed project also includes restoration and habitat enhancement of approximately 5 acres of oak woodland and riparian habitat directly adjacent to Sutter's Landing Beach.

Two alternatives are being considered for the Project. Both alternatives would include stairs down the face of the levee with ADA access ramps to the east and west leading to a plaza and personal watercraft ramp at the water's edge. The plaza and personal watercraft ramp would be constructed in one of two locations to minimize impacts to large trees and sensitive riparian vegetation. Habitat restoration would be a component of both alternatives.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.58835245,-121.46078479152933,14z>



Counties: Sacramento County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 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 Fisheries¹, 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.

-
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.

REPTILES

NAME	STATUS
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot <i>Spea hammondi</i> Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

FISHES

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Longfin Smelt <i>Spirinchus thaleichthys</i> Population: San Francisco Bay-Delta DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9011	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> 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	Proposed Threatened
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

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: Dokken Engineering

Name: Katie Jacobson

Address: 110 Blue Ravine Rd #200

City: Folsom

State: CA

Zip: 95630

Email: kjacobson@dokkenengineering.com

Phone: 9168449581

Appendix B: CNDDDB Species List



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad (Clarksburg (3812145) OR Florin (3812144) OR Elk Grove (3812143) OR Sacramento East (3812154) OR Sacramento West (3812155) OR Carmichael (3812153) OR Taylor Monument (3812165) OR Rio Linda (3812164) OR Citrus Heights (3812163))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	PMJUN011L1	None	None	G2T1	S1	1B.2
alkali-sink goldfields <i>Lasthenia chrysantha</i>	PDAST5L030	None	None	G2	S2	1B.1
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
American bumble bee <i>Bombus pensylvanicus</i>	IIHYM24260	None	None	G3G4	S2	
An andrenid bee <i>Andrena subapasta</i>	IIHYM35210	None	None	G1G2	S1S2	
bank swallow <i>Riparia riparia</i>	ABPAU08010	None	Threatened	G5	S3	
black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010	None	None	G5	S4	
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	PDSCR0R060	None	Endangered	G2	S2	1B.2
bristly sedge <i>Carex comosa</i>	PMCYP032Y0	None	None	G5	S2	2B.1
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
California black rail <i>Laterallus jamaicensis coturniculus</i>	ABNME03041	None	Threatened	G3T1	S2	FP
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
chinook salmon - Central Valley spring-run ESU <i>Oncorhynchus tshawytscha</i> pop. 11	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
chinook salmon - Sacramento River winter-run ESU <i>Oncorhynchus tshawytscha</i> pop. 7	AFCHA0205B	Endangered	Endangered	G5T1Q	S2	
Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040	None	None	G5	S4	WL
Crotch's bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	Candidate Endangered	G2	S2	
Delta smelt <i>Hypomesus transpacificus</i>	AFCHB01040	Threatened	Endangered	G1	S1	
double-crested cormorant <i>Nannopterum auritum</i>	ABNFD01020	None	None	G5	S4	WL



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
dwarf downingia <i>Downingia pusilla</i>	PDCAM060C0	None	None	GU	S2	2B.2
Elderberry Savanna <i>Elderberry Savanna</i>	CTT63440CA	None	None	G2	S2.1	
Ferris' milk-vetch <i>Astragalus tener var. ferrisiae</i>	PDFAB0F8R3	None	None	G2T1	S1	1B.1
ferruginous hawk <i>Buteo regalis</i>	ABNKC19120	None	None	G4	S3S4	WL
giant gartersnake <i>Thamnophis gigas</i>	ARADB36150	Threatened	Threatened	G2	S2	
golden eagle <i>Aquila chrysaetos</i>	ABNKC22010	None	None	G5	S3	FP
great blue heron <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
great egret <i>Ardea alba</i>	ABNGA04040	None	None	G5	S4	
Great Valley Cottonwood Riparian Forest <i>Great Valley Cottonwood Riparian Forest</i>	CTT61410CA	None	None	G2	S2.1	
Great Valley Valley Oak Riparian Forest <i>Great Valley Valley Oak Riparian Forest</i>	CTT61430CA	None	None	G1	S1.1	
green sturgeon - southern DPS <i>Acipenser medirostris pop. 1</i>	AFCAA01031	Threatened	None	G2T1	S1	SSC
hairy water flea <i>Dumontia oregonensis</i>	ICBRA23010	None	None	G1G3	S1	
Heckard's pepper-grass <i>Lepidium latipes var. heckardii</i>	PDBRA1M0K1	None	None	G4T1	S1	1B.2
hoary bat <i>Lasiurus cinereus</i>	AMACC05032	None	None	G3G4	S4	
least Bell's vireo <i>Vireo bellii pusillus</i>	ABPBW01114	Endangered	Endangered	G5T2	S3	
legenere <i>Legenere limosa</i>	PDCAM0C010	None	None	G2	S2	1B.1
longfin smelt - San Francisco Bay-Delta DPS <i>Spirinchus thaleichthys pop. 2</i>	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
Mason's lilaepsis <i>Lilaepsis masonii</i>	PDAPI19030	None	Rare	G2	S2	1B.1
merlin <i>Falco columbarius</i>	ABNKD06030	None	None	G5	S3S4	WL
midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	ICBRA03150	None	None	G2	S2S3	
Northern Claypan Vernal Pool <i>Northern Claypan Vernal Pool</i>	CTT44120CA	None	None	G1	S1.1	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool <i>Northern Volcanic Mud Flow Vernal Pool</i>	CTT44132CA	None	None	G1	S1.1	
northwestern pond turtle <i>Actinemys marmorata</i>	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
pappose tarplant <i>Centromadia parryi ssp. parryi</i>	PDAST4R0P2	None	None	G3T2	S2	1B.2
Peruvian dodder <i>Cuscuta obtusiflora var. glandulosa</i>	PDCUS01111	None	None	G5T4?	SH	2B.2
purple martin <i>Progne subis</i>	ABPAU01010	None	None	G5	S3	SSC
Ricksecker's water scavenger beetle <i>Hydrochara rickseckeri</i>	IICOL5V010	None	None	G2?	S2?	
Sacramento Orcutt grass <i>Orcuttia viscida</i>	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Sacramento perch <i>Archoplites interruptus</i>	AFCQB07010	None	None	G1	S1	SSC
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	AFCJB34020	None	None	G3	S3	SSC
Sacramento Valley tiger beetle <i>Cicindela hirticollis abrupta</i>	IICOL02106	None	None	G5TH	SH	
saline clover <i>Trifolium hydrophilum</i>	PDFAB400R5	None	None	G2	S2	1B.2
Sanford's arrowhead <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
slender Orcutt grass <i>Orcuttia tenuis</i>	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
snowy egret <i>Egretta thula</i>	ABNGA06030	None	None	G5	S4	
song sparrow ("Modesto" population) <i>Melospiza melodia pop. 1</i>	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus pop. 11</i>	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
stinkbells <i>Fritillaria agrestis</i>	PMLIL0V010	None	None	G3	S3	4.2
Suisun Marsh aster <i>Symphyotrichum lentum</i>	PDASTE8470	None	None	G2	S2	1B.2
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S4	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S2	SSC



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T3	S3	
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp <i>Lepidurus packardi</i>	ICBRA10010	Endangered	None	G3	S3	
western ridged mussel <i>Gonidea angulata</i>	IMBIV19010	None	None	G3	S2	
western spadefoot <i>Spea hammondi</i>	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-tailed kite <i>Elanus leucurus</i>	ABNKC06010	None	None	G5	S3S4	FP
woolly rose-mallow <i>Hibiscus lasiocarpus var. occidentalis</i>	PDMAL0H0R3	None	None	G5T3	S3	1B.2
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 69

Appendix C: CNPS Species List



CALIFORNIA
NATIVE PLANT SOCIETY





CNPS Rare Plant Inventory







Search Results




17 matches found. Click on scientific name for details

Search Criteria: , [CRPR](#) is one of [1A:1B:2A:2B] , [Quad](#) is one of

[3812145:3812144:3812143:3812154:3812155:3812153:3812165:3812164:3812163]

▲ COMMON NAME	SCIENTIFIC NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Ahart's dwarf rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984- 01-01	 © 2004 Carol W. Witham
alkali-sink goldfields	<i>Lasthenia chrysantha</i>	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019- 09-30	 © 2009 California State University, Stanislaus
Boggs Lake hedge- hyssop	<i>Gratiola heterosepala</i>	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974- 01-01	 ©2004 Carol W. Witham
bristly sedge	<i>Carex comosa</i>	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994- 01-01	 Dean Wm. Taylor 1997

dwarf downingia	<i>Downingia pusilla</i>	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980- 01-01		© 2013 Aaron Arthur
Ferris' milk- vetch	<i>Astragalus tener var. ferrisiae</i>	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	Yes	1994- 01-01	No Photo Available	
Heckard's pepper- grass	<i>Lepidium latipes var. heckardii</i>	Brassicaceae	annual herb	Mar-May	None	None	G4T1	S1	1B.2	Yes	1994- 01-01		2018 Jennifer Buck
legenere	<i>Legenere limosa</i>	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974- 01-01		©2000 John Game
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	Yes	1974- 01-01	No Photo Available	
pappose tarplant	<i>Centromadia parryi ssp. parryi</i>	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.2	Yes	2004- 01-01		© 2016 John Doyen
Peruvian dodder	<i>Cuscuta obtusiflora var. glandulosa</i>	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011- 08-24	No Photo Available	
Sacramento Orcutt grass	<i>Orcuttia viscida</i>	Poaceae	annual herb	Apr- Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974- 01-01		© Rick York and CNPS
saline clover	<i>Trifolium hydrophilum</i>	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001- 01-01		© 2005 Dean Wm Taylor

Sanford's arrowhead	<i>Sagittaria sanfordii</i>	Alismataceae	perennial rhizomatous herb (emergent)	May- Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984- 01-01		©2013 Debra L. Cook
slender Orcutt grass	<i>Orcuttia tenuis</i>	Poaceae	annual herb	May- Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974- 01-01		© 2013 Justy Leppert
Suisun Marsh aster	<i>Symphotrichum lentum</i>	Asteraceae	perennial rhizomatous herb	(Apr)May- Nov	None	None	G2	S2	1B.2	Yes	1974- 01-01	No Photo Available	
woolly rose- mallow	<i>Hibiscus lasiocarpos</i> var. <i>occidentalis</i>	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974- 01-01		© 2020 Steven Perry

Showing 1 to 17 of 17 entries

[Go to top](#)**Suggested Citation:**

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Appendix D: NMFS Species List

Quad Name **Sacramento East**

Quad Number **38121-E4**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat - **X**

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232**

MMPA Cetaceans -

MMPA Pinnipeds -

Appendix E: NRCS Soil Report



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Sacramento County, California**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

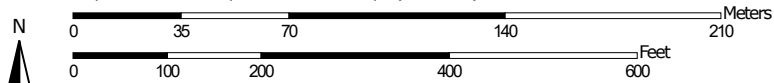
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:2,450 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sacramento County, California
 Survey Area Data: Version 25, Sep 8, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
136	Dumps	9.7	80.7%
247	Water	2.3	19.3%
Totals for Area of Interest		12.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sacramento County, California

136—Dumps

Map Unit Composition

Dumps: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dumps

Typical profile

H1 - 0 to 60 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

247—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: Unranked

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Custom Soil Resource Report

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Appendix F: Representative Photographs



Photo 1. Representative of the barren informal trails which pass through the riparian woodland habitat within the BSA. Taken facing west (June 2025).



Photo 2. Representative of the native planting area featuring broadleaf milkweed, the monarch butterfly's host plant. Taken facing north (June 2025).



Photo 3. Representative of the urban areas within the BSA featuring a paved parking lot, skate park and trail. Taken facing south (June 2025).



Photo 4. Representative of south bank of the American River within the BSA. Taken facing east (June 2025).



Photo 5. Representative of the riparian scrub habitat on the south bank of the American River, taken facing northeast (June 2025).



Photo 6. Representative of the riparian woodland habitat within the BSA. Taken facing northwest (February 2025).



Photo 7. Representative of the annual grassland habitat within the BSA. The grasses on the southeast slope of the Two Rivers Trail appear to have been recently trimmed. Taken facing southwest (June 2025).



Photo 8. Representative of one of the large elderberry patches present within the BSA. Taken facing northeast (June 2025).



Photo 9 and 10. Representative of exit holes observed on the branches of an elderberry shrub within the BSA (June 2025).

Appendix G: OHWM Datasheet

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

Project: <i>Sutters Landing</i> Project Number: <i>3206</i> Stream: <i>American River</i> Investigator(s): <i>Mark Fogiel and Katie Jacobson</i>	Date: <i>6/26/25</i> Town: <i>Sacramento</i> Photo begin file#: <i>1:35 PM</i>	Time: <i>1:50 PM</i> State: <i>CA</i> Photo end file#: <i>2:32 PM</i>
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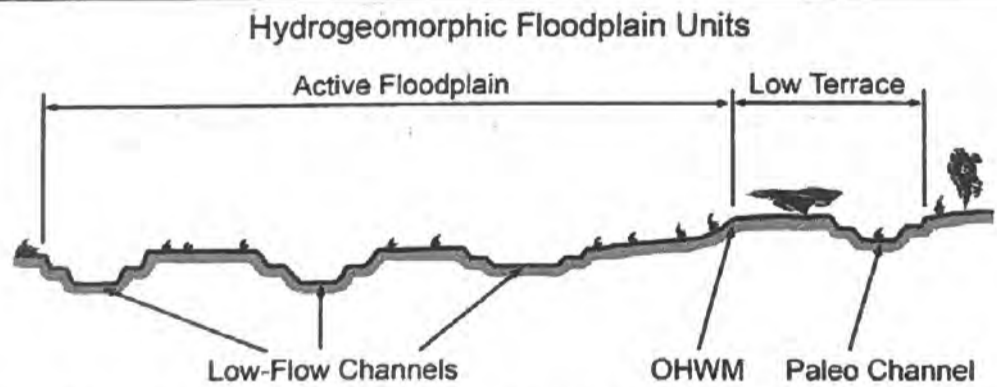
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed?	Location Details: <i>S. Bank American River at Sutters Landing</i> Projection: <i>WGS84</i> Datum: Coordinates: <i>38.588163, -121.462404</i>
--	--

Potential anthropogenic influences on the channel system:
Long history of bank and levee manipulation. At present, much foot traffic and recreational usage

Brief site description:
Riparian Woodland (Goodings Willow & Box Elder dominant); Willow scrub in openings and somewhat in understory near rivers. Much barren bank & slope from recreational use.

Checklist of resources (if available):

<input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input checked="" type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies	<input checked="" type="checkbox"/> Stream gage data Gage number: <i>11446500</i> Period of record: <i>(5 years)</i> <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event
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Procedure for identifying and characterizing the floodplain units to assist in identifying the OHW M:

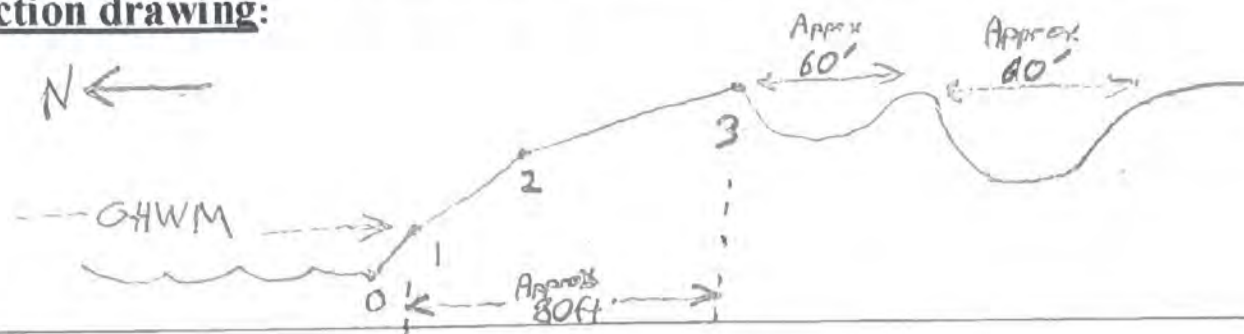
1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
 - a) Record the floodplain unit and GPS position.
 - b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
 - c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHW M and record the indicators. Record the OHW M position via:

<input type="checkbox"/> Mapping on aerial photograph	<input checked="" type="checkbox"/> GPS
<input type="checkbox"/> Digitized on computer	<input type="checkbox"/> Other:

Project ID: 3206 Cross section ID: 01

Date: 6/26/25 Time: 1:50 PM

Cross section drawing:



OHWM

GPS point: 38.588163, -121.462404 (Pt. 1 in drawing)

Indicators:

- Change in average sediment texture
- Change in vegetation species
- Change in vegetation cover
- Break in bank slope
- Other: _____
- Other: _____

Comments:

Cross section taken in vegetated bank area adjacent to more heavily used area. River banks most likely with long history of manipulation.

Floodplain unit: 0-1 Low-Flow Channel Active Floodplain Low Terrace

GPS point: 38.588163, -121.462404 (1)

Characteristics of the floodplain unit:

Average sediment texture: fine sand/med silt
 Total veg cover: 0 % Tree: % Shrub: % Herb: % (Roots)
 Community successional stage:
 NA Mid (herbaceous, shrubs, saplings)
 Early (herbaceous & seedlings) Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

Unit is from 0 to 1 in drawing. From 0, north is relatively horizontal riverbed, unvegetated except for exposed roots of upper river bank vegetation. From 0 to 1 bank is steep, sparsely vegetated with early successional growth or extension of ground cover from above. Indications of ± frequent scouring. Photos: PXL-20250626-21312126.jpg ... -213130169.jpg

Project ID: 3206 Cross section ID: 01 Date: 6/26/2025 Time: 1:50 PM

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: 38.588181, -121.462409 (0)

Characteristics of the floodplain unit:

Average sediment texture: _____
 Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:
 NA Mid (herbaceous, shrubs, saplings)
 Early (herbaceous & seedlings) Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Comments:

GPS point taken at edge of open water at time of survey. See description in Floodplain Unit 0-1.

Photos: PXL_20250626_211321098.jpg

Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace

GPS point: 38.588076, -121.462379 (2)
 38.587947, -121.462340 (3)

Characteristics of the floodplain unit:

Average sediment texture: _____
 Total veg cover: 30% Tree: 10% Shrub: 20% Herb: 5%

Community successional stage:
 NA 1-2 Mid (herbaceous, shrubs, saplings)
 Early (herbaceous & seedlings) 2-3 Late (herbaceous, shrubs, mature trees)

Indicators:

- Mudcracks
- Ripples
- Drift and/or debris
- Presence of bed and bank
- Benches
- Soil development
- Surface relief
- Other: _____
- Other: _____
- Other: _____

Photos
 1-2 20250626-213134683.jpg
 " " 50545.jpg
 Transition " " 53772.jpg
 2-3 " 213209891.jpg

Comments:

Points taken at elevations along bank cross section.
 Unit 1-2: about 30' horizontal, relatively steep, but less so than 0-1. Relative dense with shrubby willows (Salix exigua) + occasional riparian trees. Appears to contain ± normal flood stages
 Unit 2-3: ~50' horizontal. Mature Riparian trees w/ varied understory, including upland weeds. Appears to contain high flood stages
 South of 3: 2 wide (~40') deep constructed swales to capture exceptional flooding events before reaching adjacent built environments

USGS Stream Gage Data (1 and 5 Year)

(Sutters Landing Project- 6/26/25 survey date indicated by dashed vertical line and red arrow)

