
Appendix C

Biological Resources Assessment

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California State University Stanislaus Stockton Campus Master Plan

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BGEPA	Bald and Golden Eagle Protection Act
BRA	Biological Resources Assessment
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DCH	Designated Critical Habitat
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Environmentally sensitive area
FESA	Federal Endangered Species Act
IPaC	Information for Planning and Consultation
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
NWI	National Wetlands Inventory
NWP	Nationwide Permit
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SWANCC	Solid Waste Agency of Northern Cook County
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 Introduction

This Biological Resources Assessments (BRA) for the California State University, Stanislaus Stockton Center Proposed Master Plan Update (proposed project) describes the existing conditions, regulatory setting, and existing biological resources within the Biological Study Area (BSA) and provides a preliminary analysis of project impacts (Appendix A: Figure 1. Project Location and Figure 2. Project Site). As part of the BRA, Dudek biologists conducted an updated desktop literature review and database search specific to biological resources. Dudek also performed a reconnaissance-level biological field survey in February 2024. The “project site” refers to the area that would be physically affected by construction activities associated with the proposed project (including temporary disturbance) and the location of permanent structures. The project site also includes all staging areas. The BSA encompasses the project site as described above as well as a 250-ft buffer around the project site to capture resources within the limits of potential impact.

This BRA includes (1) a description of existing conditions on the site, (2) regulatory overview, (3) methods for biological studies, and (4) a description of any sensitive habitats or resources observed on the site. Details pertaining to the BSA are provided below:

- **County:** San Joaquin
- **Public Land Survey System:** Section 20; Township 1 North; Range 6 East
- **U.S. Geological Survey (USGS) 7.5-Minute Quadrangle:** Stockton West
- **Latitude, Longitude (decimal degrees):** 37.96436, -121.284708° (centroid)
- **APN:** 1391 -7505, -8019, -8020, -8021, -8023, -8037, -8038, -8039, -8040, -8041, -8042, -8062, 8063; and 13921008
- **Elevation Range (feet):** 5 to 40 feet above mean sea level (amsl)
- **BSA:** 47.03 acres

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2 Project Setting

2.1 Project Description

The proposed project consists of a Master Plan that would provide space and facility needs to support a planned increase in enrollment to 2,000 full-time-equivalent students at Stockton Center. Stockton Center is an off-campus extension of the California State University, Stanislaus (CSU Stanislaus) located in Stockton, California. Stockton Center offers upper-division college courses, allowing students to complete their degrees without commuting to the main CSU Stanislaus campus in Turlock, California. The proposed Master Plan involves the renovation of 2 existing buildings and construction of 6 new buildings, including new and renovated building space for academics, administration, library, student recreation, shared uses, and parking, for a total net increase of 148,100 gross square feet of building space.

2.2 Regional Land Use Setting

Stockton Center is located within University Park, which is a 102-acre former State Hospital site located in the City of Stockton (City) within San Joaquin County (County), California. University Park is zoned and designated in the Envision Stockton 2040 General Plan for Mixed Use. A short distance south is the City's downtown, which is the historic core of the City. State Route 4 is located south of downtown and links the two primary California north-south freeways, Interstate 5 and State Route 99 (Appendix A: Figure 1. Project Location and Figure 2. Project Site).

University Park is bound by East Harding Way to the north, railroad tracks and light industrial development to the east, Park Street to the south, and North California Street to the west. University Park includes many older buildings dating to 1900, some of which have undergone renovation to accommodate new health, educational, and non-profit organizations on site. Within University Park and north of East Magnolia Street, there is the Stockton Regional Rehabilitation Hospital, various other medical offices and associated parking lots, a rose garden, and a manmade lake surrounded by a pedestrian trail. The Stockton Fire Department Station 9 is also located within University Park adjacent to East Harding Way. Within University Park and south of East Acacia Street, there is the Pittman Charter School, KIPP University Park Middle School, a running track, and a Department of Motor Vehicles Driver Safety Office. The western portion of University Park (west of North Grant Street and North Aurora Street) includes the Health Careers Academy High School, a daycare center, a Grupe Huber Company office building, and the Valley Mountain Regional Center non-profit. The 88,000-square-foot Acacia Court building is centrally located within University Park and is bound by East Magnolia Street to the north, North Grant Street to the west, East Acacia Street to the south, and American Street to the east. CSU Stanislaus currently occupies the Acacia Court building, which houses enrollment services, classroom and laboratory space, offices, student lounge and study space, and student services, and Magnolia Mansion.

2.3 Climate and Rainfall

The BSA is within a Mediterranean climate where average annual temperatures range from 46.3°F to 74.5°F (WRCC 2024). According to the Stockton Fire Station 4 (048560) Weather Station Gauge, yearly precipitation averages 15.37 inches, with the highest average rainfall recorded in January (3.06 inches) (WRCC 2024).

2.4 Soil and Terrain

The BSA is relatively flat, with elevation ranging from 5 to 40 feet amsl. According to the Natural Resources Conservation Service (USDA 2024a), one soil type is mapped on the study area: Jacktone-Urban 0% to 2% slopes. The Jacktone-Urban series consists of moderately deep to hardpan, somewhat poorly drained soils formed in alluvium from mixed sources. Jacktone-Urban is a hydric soil.

2.5 Hydrology and Watershed

The BSA occurs within the McLeod Lake-Mormon Slough watershed (Hydrologic Unit Code 180400030303; USGS 2024), which occurs within the San Joaquin Delta watershed (Hydrologic Unit Code 18040003). The BSA is situated in a natural basin that receives runoff from the Sierra Nevada Mountains flowing into a matrix of rivers, streams, catchments, and canals that generally drain west toward the San Joaquin River. McLeod Lake is approximately 0.50 mile southwest of the BSA which drains into the San Joaquin River, approximately 2.70 miles southwest of the BSA. Surface run off in the BSA is generally directed into constructed drainage ditches (Appendix A: Figure 3. Hydrologic Setting; USGS 2024).

There are no aquatic features mapped in the BSA by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) or the Environmental Protection Agency (EPA) Waters GeoViewer (interactive map) (USFWS 2024a). In addition, the BSA is located within Zone X, an area of reduced flood risk due to a levee according to Federal Emergency Management Agency (FEMA 2024) (Figure 3, Hydrologic Setting).

3 Regulatory Setting

3.1 Federal

3.1.1 Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3(a)) has changed multiple times over the past few decades starting with the *United States v. Riverside Bayview Homes, Inc.* court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*), 2006 (*Rapanos v. United States*), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule, NWPR), and 2021 (*Pasqua Tribe et al v. United States Environmental Protection Agency* resulting in remand and vacatur of the NWPR and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation. On December 30, 2022, the agencies announced the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004-3144). The Rule was published in the Federal Register on January 18, 2023, and became effective on March 20, 2023, restoring federal jurisdiction over waters that were protected prior to 2015 under the Clean Water Act for traditional navigable waters, the territorial seas, interstate waters, and upstream water resources that significantly affect those waters. The Rule represents a re-expansion of federal jurisdiction over certain water bodies and wetlands previously exempt pursuant to the 2020 Navigable Waters Protection Rule. The Rule also considers various subsequent court decisions including two notable Supreme Court decisions.

There are two key changes that the Rule incorporates. Firstly, the Rule reinstates the "Significant Nexus" test. The "Significant Nexus" test refers to waters that either alone, or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas (86 FR 69372-69450). The "Significant Nexus" test attempts to establish a scientific connection between smaller water bodies, such as ephemeral or intermittent tributaries, and larger, more traditional navigable waters such as rivers. Significant nexus evaluations take into consideration hydrologic and ecologic factors including, but not limited to, volume, duration, and the frequency of surface water flow in the resource and its proximity to a traditional navigable water, and the functions performed by the resource on adjacent wetlands. Second, the Rule adopts the "Relatively Permanent Standard" test. To meet the "Relatively Permanent Standard" water bodies must be relatively permanent, standing, or continuously flowing and have a continuous surface connection to such waters.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in *Sackett v. EPA.*, in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface connection to traditional navigable waterways would be afforded federal protection under the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water[s] of the United States' (i.e., a relatively permanent body of water connected to traditional interstate navigable waters) and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins.

On August 29, 2023, the EPA and USACE announced the final rule amending the 2023 definition of "waters of the United States", conforming with the *Sackett v. EPA* decision. Some of the key changes include removing the significant nexus test from consideration when identifying tributaries and other waters as federally protected and revising the adjacency test when identifying federally jurisdictional wetlands. Under the EPA's new "waters of the United States" definition, a "waters of the United States" is a relatively permanent, standing, or continuously flowing body of water that has an apparent surface connection to a "traditionally navigable water" to fall within federal purview. The new rule applies to wetlands and streams throughout the U.S. Although the *Sackett* opinion did not specifically reference streams, the EPA's new rule extends the "continuous surface connection" standard to streams, thereby removing non-permanent, ephemeral streams that do not meet these standards from federal jurisdiction.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

3.1.2 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended (16 USC 1531 et seq.), serves as the enacting legislation to list, conserve, and protect threatened and endangered species, and the ecosystems on which they depend, from extinction. In addition, for those wildlife species listed as federally endangered, FESA provides for the ability to designate critical habitat, defined as that habitat considered "essential to the conservation of the species" and that "may require special management considerations or protection."

Under FESA Section 7, if a project that would potentially result in adverse impacts to threatened or endangered species includes any action that is authorized, funded, or carried out by a federal agency, that agency must consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any such action is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat (DCH) for that species. FESA Section 9(a)(1)(B) prohibits the taking, possession, sale, or transport of any endangered fish or wildlife species. "Take" is defined to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC 1532[19]). With respect to any

endangered species of plant, Sections 9(a)(2)(A) and 9(a)(2)(B) prohibit the possession, sale, and import or export, of any such species, and prohibits any action that would “remove and reduce to possession any such species from areas under federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law.” Pursuant to FESA Section 10(a)(1)(B), USFWS may issue a permit for the take of threatened or endangered species if such taking is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity” (USFWS 2024b).

Designated Critical Habitat

The FESA also enables USFWS to designate critical habitat, which is defined specific geographic areas, whether occupied by listed species or not, that contain “physical or biological features essential to the conservation of the species” and that “may require special management considerations or protection” (50 CFR 424.12). Designated critical habitat units, published in the Federal Register by USFWS, are often large and may contain areas that do not provide habitat for the species: only areas within the critical habitat units that support the species’ *primary constituent elements* (PCEs) are subject to ESA consultation and analysis of critical habitat effects. PCE was a term introduced in the critical habitat designation regulations to describe aspects of “physical or biological features.” On May 12, 2014, the Services proposed to revise these regulations to remove the use of the term “primary constituent elements” and replace it with the statutory term “physical or biological features” (79 FR 27066). However, the shift in terminology does not change the approach used in conducting a “destruction or adverse modification” analysis, which is the same regardless of whether the original designation identified PCE, physical or biological features, or both (81 FR 7220, 2/11/16; USFWS 2024b).

3.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50, Section 10.13 of the CFR. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50, Section 20 of the CFR. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors) (USFWS 2024c).

3.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BAGEPA) (16 USC 668 et seq.) provides for the protection of both bald and golden eagles and prohibits the take, possession, and transportation of these species except pursuant to federal regulations. The BAGEPA defines “take” as any action that would “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” bald and golden eagles, including parts, nests, or eggs. The term “disturb” is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” (50 CFR 22.63). Under BAGEPA, it is also illegal to “sell, purchase, barter, trade, import, or export, or offer for sale, purchase, barter, or trade, at any time or in any manner, any bald eagle or any golden eagle, or the parts, nests, or eggs” of these birds (50 CFR 22.12).

Pursuant to 50 CFR 22.26, an amendment to BAGEPA was published in December 2016, allowing for a permit to be obtained that authorizes take of bald eagles and golden eagles where the take is “compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided.” In February 2024, the latest amendment to the BAGEPA (89 FR 9920–9965) revised the regulations for the issuance of permits for eagle incidental take and eagle nest take. These regulations provided a number of revisions including, creating general permit “options for qualifying wind-energy generation projects, power line infrastructure, activities that may disturb breeding bald eagles, and bald eagle nest take.” The general permit options are intended to “simplify and expedite the permitting process for activities that have relatively consistent and low risk to eagles and well-established avoidance, minimization, and compensatory mitigation measures.” Projects that do not meet the eligibility criteria for general permits may still apply for specific permits. The revised regulations created a tier structure within specific permits with tier levels related to the complexity of the project. In addition, the regulations provide allowances for fulfilling compensatory mitigation requirements through the purchase of “eagle credits” from USFWS approved in-lieu fee programs and conservation banks that will be authorized for particular Eagle Management Units. Other revisions include narrowing the definition of “eagle nest” to exclude nest structures on failed nesting substrates that fail due to natural circumstances, such as a fallen tree, which result in a nest structure that will no longer and never again be functional or used by eagles; revising the definition for ‘in-use nest’ to clarify that the “eggs in an ‘in-use nest’ must be viable” and do not include non-viable eggs that are present, for example, in an alternate nest outside of the breeding season; and revised permit fees (USFWS 2024d).

3.1.5 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. Sections 1801–1884) of 1976, as amended in 1996 and reauthorized in 2007, is intended to protect fisheries resources and fishing activities within 200 miles of shore. The amended law, also known as the Sustainable Fisheries Act (Public Law 104-297), requires all federal agencies to consult with the Secretary of Commerce on proposed projects authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The main purpose of the EFH provisions is to avoid loss of fisheries due to disturbance and degradation of the fisheries habitat.

3.2 State

3.2.1 Porter-Cologne Water Quality Control Act

The Porter–Cologne Act delegates responsibility to the State Water Resource Control Board (SWRCB) for water rights and water quality protection and directs the nine statewide Regional Water Quality Control Boards (RWQCBs) to develop and enforce water quality standards within their jurisdiction. The Porter–Cologne Act requires any entity discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state to file a “report of waste discharge” with the appropriate RWQCB. The appropriate RWQCB then must issue a permit, referred to as a Waste Discharge Requirement. Waste Discharge Requirements implement water quality control plans and take into consideration the beneficial uses to be protected, the water quality objectives required for that purpose, other waste discharges, and the need to prevent nuisances (SWRCB 2021 and 2023).

SWRCB defines a water of the state as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code Section 13050[e]). As of April 2019, SWRCB has defined “wetland” to include the following (SWRCB 2023):

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state,
3. Artificial wetlands that meet any of the following criteria:
 - a) Approved by an agency as compensatory mitigation for impacts to other Waters of the State, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b) Specifically identified in a Water Quality Control Plan as a wetland or other water of the state;
 - c) Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
 - d) Greater than or equal to one acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, “under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation” (SWRCB 2023, EPA 2024a-c).

3.2.2 California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Wildlife (CDFW) has the responsibility of maintaining a list of threatened and endangered species. CESA prohibits the take of state-listed threatened or endangered animals and plants unless otherwise permitted pursuant to CESA. “Take” under CESA is defined as any of the following: “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (CFGC Section 86). Species determined by the state to be candidates for listing as threatened or endangered are treated as if listed as threatened or endangered and are, therefore, protected from take. Pursuant to CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species, or candidate species, could be potentially impacted by that project (CDFW 2024a).

3.2.3 California Fish and Game Code

Divisions of the California Fish and Game Code (CFGC) establish the basis of fish, wildlife, and native plant protections and management in the state.

3.2.3.1 California Fish and Game Code, Section 1940

Section 1940 of the CFGC requires CDFW to develop and maintain a vegetation mapping standard for the state. More than half of the vegetation communities in the state have been mapped through the Vegetation Classification and Mapping Program

Natural vegetation communities are evaluated by CDFW and are assigned global (G), and state (S) ranks based on rarity of and threats to these vegetation communities in California. Sensitive natural communities are defined by CDFW as vegetation alliances with state ranks of S1–S3 (S1: critically imperiled, S2: imperiled, S3: vulnerable), as identified in the 2010 List of Vegetation Alliances and Associations and subsequent updates. Natural communities with ranks of S1–S3 are considered sensitive natural communities to be addressed in the environmental review processes of the California Environmental Quality Act (CEQA) and its equivalents. Additionally, all vegetation associations within the alliances with ranks of S1–S3 are considered sensitive habitats. CEQA requires that impacts to sensitive natural communities be evaluated and mitigated to the extent feasible.

Sensitive natural communities are communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain special-status species or their habitats. For purposes of this assessment, sensitive natural communities are considered to include vegetation communities listed in CDFW’s California Natural Diversity Database (CNDDDB) and communities listed in the California Natural Community List with a rarity rank of S1- S3 (CDFW 2024b and CDFW 2024c, respectively).

3.2.3.2 Lake and Streambed Alteration Program

Under Sections 1600–1616 of the CFGC, CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW’s jurisdiction are defined in the code as the “bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.” In practice, CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider (CDFW 2024d).

3.2.3.3 Native Plant Protection Act

The Native Plant Protection Act was enacted in 1977 and is administered by CDFW, per CFGC Section 1900 et seq. The Native Plant Protection Act prohibits take of endangered, threatened, or rare plant species native to California, apart from special criteria identified in the CFGC. A “native plant” means a plant growing in a wild uncultivated state that is normally found native to the plant life of the state. A “rare” species can be defined as species that are broadly distributed but never abundant where found, narrowly distributed, or clumped yet abundant where found, and/or narrowly distributed or clumped and not abundant where found. If potential impacts are identified for a project activity, then consultation with CDFW, permitting, and/or other mitigation may be required (CLI 2023).

3.2.3.4 Nesting Migratory Birds and Raptors

Section 3503 of the CFGC states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

3.2.3.5 Non-game Mammals

CFGC Section 4150 states a mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a non-game mammal. A non-game mammal may not be taken or possessed under this code. All bat species occurring naturally in California are considered non-game mammals and are therefore prohibited from take as stated in CFGC Section 4150.

3.2.3.6 Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the CFGC outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the “take” of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Pursuant to Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Birds of prey refer to species in the orders Falconiformes and Strigiformes. Nests of all other birds (except English sparrow [*Passer domesticus*, also referred to as house sparrow] and European starling [*Sturnus vulgaris*]) are protected under Sections 3503 and 3513 of the California Fish and Game Code.

On July 10, 2023, Senate Bill 147 (SB147) was signed into law and amends the CFGC to allow a 10-year permitting mechanism for a defined set of projects within the renewable energy, transportation, and water infrastructure sectors. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

3.2.4 California Environmental Quality Act

CEQA, PRC Section 21000 et seq., requires public agencies undertaking discretionary actions to approve a project to first determine whether a project may have a significant effect on the environment, and then to prepare an environmental impact report if there is substantial evidence that the project may have a significant effect on the environment. Where an environmental impact report has been prepared, CEQA further requires public agencies to adopt findings with respect to each significant effect that “changes or alterations have been required in, or incorporated, into the project which mitigate or avoid the significant effects on the environment; that those changes are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report” (PRC Section 21081[a]).

The California Natural Resources Agency has adopted regulations (i.e., guidelines) to implement CEQA. Pursuant to CEQA Guidelines Section 15380, protection is provided for federal and/or state-listed species, as well as species not listed federally or by the state that may be considered rare, threatened, or endangered. Species that meet these criteria can include candidate species, species proposed for listing, and Species of Special Concern (SSC). Plants listed in the California Native Plant Society (CNPS) Rare Plant Program are considered to meet CEQA's Section 15380 criteria as well. Section 15380 also addresses a potential situation in which a public agency is to review a project that may have a significant effect on, for example a candidate species, which has not yet been listed by USFWS or CDFW. Therefore, CEQA enables an agency to protect a species from significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted. Impacts to these species would therefore be considered significant, requiring mitigation.

3.3 Local

3.3.1 San Joaquin County General Plan 2035

The County maintains a comprehensive general plan which provides guidelines for development within the County. The current 2035 (2016) San Joaquin County General Plan (General Plan) includes objectives for aquatic, including water quality, and biological resource protections. General Plan policies that are relevant to the Project are outlined below (San Joaquin County 2016).

Natural and Cultural Resources (NCR) Element

GOAL NCR-1: To conserve and enhance the County's open space resources.

NCR-1.1 Preserve Natural Areas - The County shall protect, preserve, and enhance important natural resource habitat, biological diversity, and the ecological integrity of natural systems in the County. (RDR/PSP)

NCR-1.2 Open Space in Urban Communities - The County shall ensure that open space within urban communities is provided through the development and maintenance of open space and recreation areas. (PSP)

NCR-1.3 Open Space Opportunities - The County shall support efforts to create opportunities for the public to experience and appreciate open space resources. (PSP)

GOAL NCR-2: To preserve and protect wildlife habitat areas for the maintenance and enhancement of biological diversity and ecological integrity.

NCR-2.1 Protect Significant Biological and Ecological Resources - The County shall protect significant biological and ecological resources including: wetlands; riparian areas; vernal pools; significant oak woodlands and heritage trees; and rare, threatened, and endangered species and their habitats. (RDR/PSP)

NCR-2.2 Collaboration for Species Protection - The County shall collaborate with the California Department of Fish and Wildlife during the review of new development proposals to identify methods to protect listed species. (RDR/IGC)

NCR-2.3 San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) - The County shall continue to implement the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan to mitigate biological impacts resulting from open space land conversion. (RDR/PSP/IGC)

NCR-2.4 Preservation of Significant Oak Groves - The County shall require new development in the vicinity of significant oak groves to be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. (RDR)

NCR-2.5 No Net Loss of Wetlands - The County shall not allow development to result in a net loss of riparian or wetland habitat. (RDR)

NCR-2.6 Criteria for Development Impacts to Wetlands - The County shall not approve new development projects that have the potential to fill wetlands, unless:

- a) no suitable alternative site exists for the land use, and the use is considered necessary to the public;
- b) there is no degradation of the habitat or numbers of any rare, threatened, or endangered plant or animal species as a result of the project; and
- c) habitat of greater quantity and superior or comparable quality will be created or restored to compensate for the loss. (RDR)

NCR-2.7 Protect Waterfowl Habitat - The County shall strive to preserve, protect, and enhance feeding areas and winter habitat for migratory waterfowl. (PSP)

NCR-2.8 Natural Open Space Buffer - The County shall require a natural open space buffer to be maintained along any natural waterway to provide nesting and foraging habitat and to protect waterway quality. (RDR)

NCR-2.9 Protect Fisheries - The County shall encourage and support efforts to protect fisheries, including:

- a) reducing the level of pesticides and fertilizers and other harmful substances in agricultural and urban runoff;
- b) designing and timing waterway projects to protect fish populations; and
- c) operating water projects to provide adequate flows for spawning of anadromous fish. (PSP)

NCR-2.10 Support Fishery Restoration Plans - The County shall work with the California Department of Fish and Wildlife and other agencies or organizations to support development and implementation of feasible restoration plans for anadromous fisheries. (PSP/IGC)

NCR-2.11 Ecological Information Programs - The County shall support programs that encourage and teach respect for the environment. (PSP/PI)

NCR-2.12 Encourage Native Landscaping - The County shall encourage the use of native plants for landscaping to provide suitable habitat for native wildlife. (RDR)

NCR-2.13 Project Referral to Environmental Organizations - The County shall encourage private resource and conservation organizations to review and comment on projects that could affect the County's biological resources. (RDR/JP)

GOAL NCR-3 To ensure the quality of water for municipal and industrial uses, agriculture, recreation, and fish and wildlife.

NCR-3.1 Preserve Groundwater Recharge Areas - The County shall strive to ensure that substantial groundwater recharge areas are maintained as open space. (PSP)

NCR-3.2 Groundwater Recharge Projects - The County shall encourage the development of groundwater recharge projects of all scales within the County and cities to increase groundwater supplies. (PSP)

NCR-3.3 Multi-Jurisdictional Groundwater Management Evaluation - The County shall support multi-jurisdictional groundwater management that involves adjacent groundwater basins. (IGC)

NCR-3.4 Eliminate Pollution - The County shall support efforts to eliminate sources of pollution and clean up the County's waterways and groundwater. (PSP)

NCR-3.5 Low Impact Development - The County shall require new development to minimize or eliminate stormwater quality and hydro-modification impacts through site design, source controls, runoff reduction measures, best management practices (BMPs), and Low Impact Development (LID). (RDR)

NCR-3.6 Prohibit Discharge of Sewage Sludge - The County shall prohibit the discharge of sewage sludge or septage to surface waters or surface water drainage sources, including wetlands and waterways. (RDR)

NCR-3.7 Septic Tank Regulation - The County shall enforce its septic tank and onsite system regulations consistent with Central Valley Regional Water Quality Control Board policy that recognizes the County as the responsible agency to protect the water quality of surface water and groundwater. (RDR)

NCR-3.8 Support Sufficient River Flows - The County support properly timed flows of sufficient quality in local waterways necessary to sustain healthy fisheries. (PSP)

NCR-3.9 Require Water Projects to Mitigate Impacts - The County shall require water projects to incorporate safeguards for fish and wildlife and mitigate erosion and seepage to adjacent lands. (RDR)

NCR-3.10 Coordination for Waterway Protection - The County shall coordinate with city, State, and Federal agencies to implement policies regarding protection and enhancement of waterways and levees. (IGC)

GOAL NCR-5 To increase energy independence through the use of renewable energy sources and improved energy conservation and efficiency.

NCR-5.1 Nonrenewable Energy and Energy Efficiency - The County shall support the efforts of residents, businesses, and energy providers to reduce the consumption of nonrenewable energy and shall promote energy providers' programs to increase energy efficiency and implement demand response programs. (PSP)

NCR-5.2 Alternative Energy - The County shall encourage residents, businesses, and energy providers to develop and use alternative, renewable energy sources, including but not limited to, biomass, solar, wind, and geothermal. (RDR/PSP)

NCR-5.9 Shaded Parking Lots The County shall require parking lots to be shaded in the summertime but allow winter solar access to adjacent buildings and sidewalks. (RDR)

NCR-5.11 Green Building Practices The County shall encourage green building practices in new construction. (RDR)

NCR-5.14 Natural Daylighting in Commercial Operations The County shall encourage commercial and employment operations to incorporate natural daylighting by the use of windows and skylights to reduce energy demand for lighting. (RDR)

3.3.2 San Joaquin County Tree Protection

The County currently addresses management of tree resources through the County Municipal Code (San Joaquin County 2024). Below are the existing regulations relative to the Project to manage tree resources.

Title 9. Development Title: Division 15. Natural Resources Regulations

9-1505.2 APPLICABILITY. The provisions of this chapter shall apply to all development projects requiring discretionary approval which have Native Oak Trees, Heritage Oak Trees, or Historical Trees on the property. (Ord.3675)

9-1505.3 REMOVAL REQUIREMENTS. The removal of a Native Oak Tree, Heritage Oak Tree, or Historical Tree shall require an approved Improvement Plan application, as specified in Chapter 9-884 of this Title, and shall be subject to the provisions of this Chapter, unless exempted by Sections 9-1505.8 or 9-1505.9.

a) Heritage Oak Tree, Historical Tree. The removal of a Heritage Oak or Historical Tree shall not be permitted unless the Review Authority finds that one or more of the following situations exists:

(1) That the removal is in the public interest;

(2) That the tree interferes with an existing structure, utility service, or road, and no reasonable alternative exists to correct the interference other than removal of the tree;

(3) That removal is necessitated because the tree is endangering another plant in the area with infection or infestation;

(4) The removal is necessitated because the tree interferes with the maintenance of flood control facilities. Replacement of any tree removed under this subsection shall be as specified in Section 9-1505.4.

b) Native Oak Tree. Removal of a Native Oak Tree shall be permitted subject to an approved Improvement Plan application processed by Staff Review procedure. Replacement of any tree removed under this subsection shall be as specified in Section 9-1505.4. (Ord. 3675; 3697; Ord. 3843 § 19 (part), 1995)

9-1505.4 REPLACEMENT. Trees removed under the provisions of this Chapter shall be replaced subject to the following requirements:

a) Replacement Stock. Replacement stock shall be of healthy commercial nursery stock or acorns, of the species removed or other approved species, and shall be established and maintained for at least three (3) years.

b) Location. Replacement trees shall be planted as near as possible to the location of the removed tree or in an alternative location acceptable to the Review Authority.

c) Timing. Replacement stock shall be planted between October 1 and December 31, and no later than twelve (12) months after the date of tree removal.

d) Number and Maintenance of Replacement Trees. The number and maintenance of replacement stock shall be as follows:

(1) Each Heritage Oak Tree or Historical Tree that has been removed under the provisions of Section 9- 1505.3(a) shall be replaced with five (5) trees or acorns, or combination thereof.

(2) Each Native Oak Tree that has been removed under the provisions of Section 9-1505.3(b) shall be replaced with three (3) trees or acorns, or combination thereof.

(3) The applicant shall be required to demonstrate to the satisfaction of the Review Authority that replacement stock will be planted and maintained in such a manner as to ensure that the survival of said stock at the end of a three (3) year period commencing from the date of planting.

(e) Replanting Security. The Review Authority may require, as a Condition of Approval, the applicant to provide a performance bond or other financial security to replant any replacement tree found not to be alive at the end of the required three (3) year maintenance period. The form of the bond or other financial security shall be found acceptable by the County Counsel and the amount shall be sufficient to cover the County's cost to replant said trees. The Director shall, upon written request of the applicant at the end of the maintenance period, determine the health of the replacement

trees and release the security, in the event that all replacement trees are alive. In the event that the replacement trees are not alive, the Director shall use all or part of the security to replant said trees. The applicant may be required to provide additional 590 security to ensure maintenance of said trees for an ensuing three (3) year maintenance period. (Ord. 3675; Ord. 3843 § 19 (part), 1995)

9-1505.5 DEVELOPMENT CONSTRAINTS. To protect and preserve Heritage Oak Trees, Historical Trees, and Native Oak Trees from development and construction activity, the following standards shall be applicable unless otherwise specified:

a) Grade Changes. Grade changes near or within the dripline of said trees shall comply with the following restrictions:

(1) No grade changes shall occur within six (6) feet of the trunk of the tree.

(2) No grade changes shall occur that entail removing or adding more than six (6) inches of soil in the protected zone of the tree.

(3) Extensive cuts or fills that are necessary beyond the protected zone shall have adequate drainage to mitigate adverse effects caused by changes in grade elevation.

(4) Any grade changes within the protected zone of the tree shall be accomplished so as to prevent soil compaction and injury to or removal of the tree's roots.

b) Fencing. Before grading operations may commence, a minimum five (5) foot high chain link fence or other comparable protective fencing shall be installed at the outermost edge of the protected zone of each tree or group of trees. Fencing, however, to protect trees on slopes that will not be graded is not required.

(1) Fences shall remain in place throughout the entire construction period.

(2) No material, machinery, or objects of any kind may be stored within the fenced area.

c) Trenching. No trenching whatsoever shall be allowed within the protected zone of subject trees. If underground utility lines must be installed within the protected zone, the conduit shall be installed by boring or drilling through the soil.

d) Retaining Walls. In cases where retaining walls are required within the protected zone of the tree, the property owner shall complete said improvement before the completion of grading operations and before commencement of any construction.

e) Paving. Paving within the dripline of affected trees shall be stringently minimized. If paving is necessary, porous materials such as gravel, loose boulders, and cobbles, brick with sand joints, wood chips, or bark mulch shall be used.

f) Exceptions. The Development Constraints in this section shall not apply to nonnal agricultural practices. (Ord.3675)

9-1505.6 LANDSCAPING. Unless otherwise specified, landscaping beneath Heritage Oak Trees, Historical Trees, and Native Oak Trees shall be subject to the following requirements:

a) Nonplant Materials. Nonplant materials such as loose boulders and cobbles, wood chips, or similar materials, may be used under trees.

b) Permitted Plants. Only plant species that are tolerant of the natural semi-arid environment of said trees, or the natural environment of Historical Trees, whichever is applicable, shall be permitted under trees.

c) Nonplanting Areas. No plants or lawn shall be planted within a ten (10) foot radius of the trunk of any subject tree. Only nonplant materials shall be used within said area.

d) Irrigation Systems. Permanent irrigation systems within the protective zone of subject trees shall be limited to bubbler, drip, or subterranean systems only. No irrigation system shall be allowed within a ten (10) foot radius of the trunk of a subject tree.

e) Exceptions. The Landscaping Requirements in this section shall not apply to normal agricultural practices. (Ord.3675)

9-1505.7 EXPERT OPINION. The Review Authority may require the opinion of an individual with special expertise in the care and maintenance of Native Oak Trees, Historical Trees, or Heritage Oak Trees in any of its deliberations concerning said trees. The Review Authority shall require the applicant to pay for the cost of obtaining the services of such an individual. (Ord.3675)

9-1505.8 GENERAL EXEMPTIONS. The provisions of this Chapter shall not apply to:

a) Cases of emergency requiring the immediate removal of said trees for the safety of structures or human life, as determined by the Director of the Community Development Department, the Director of Public Works, the Director of Parks and Recreation, or the Chief of the applicable fire district.

b) Removals by a public utility that are necessary to protect electric power or communication lines or other property owned by said public utility.

c) Removals required for the repair and maintenance of existing roads, flood control facilities, and/or other 591 public facilities. Where flood channels consist of all or portions of natural waterways, the portion to be exempted shall be limited to the watercourses and such portions of the adjacent land area between the levees required to discharge the 100-year flood.

d) Removals required by other codes, ordinances, or laws of San Joaquin County, the State of California, or the United States.

e) Trees that are dead or diseased. (Ord.3675)

9-1505.9 EXISTING LOT EXEMPTIONS. The prohibition against the removal of Native Oak Trees specified in Section 9-1505.3(b) shall not apply to:

a) Existing lots containing less than ten thousand (10,000) square feet and an existing residential use; and

b) Existing lots containing less than one (1) acre and an existing commercial or industrial use. (Ord.3675)

3.3.3 2.3.3 San Joaquin County Multi-Species Habitat Conservation Plan

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the FESA or the CESA; providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large (SJMSCP 2000).

The proposed project is in a highly developed area and does not expect significant impacts to biological resources. Additionally, it is anticipated that the proposed project will participate in the CEQA process, and therefore does not anticipate the necessity or requirement for coverage under the SJMSCP.

3.3.4 2.3.4 Envision Stockton 2040 General Plan

GOAL LU-5: Protected Resources

POLICY LU-5.2 Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

Action LU-5.2A Continue to coordinate with the San Joaquin Council of Governments and comply with the terms of the Multi-Species Habitat Conservation and Open Space Plan to protect critical habitat areas that support endangered, threatened, and special-status species.

Action LU-5.2B For projects on or within 100 feet of sites that have the potential to contain special-status species or critical or sensitive habitats, including wetlands, require preparation of a baseline assessment by a qualified biologist following appropriate protocols, such as wetland delineation protocol defined by the US Army Corps of Engineers. If such sensitive species or habitats are found to be present, development shall avoid impacting the resource, and if avoidance is not feasible, impacts shall be minimized through project design or compensation identified in consultation with a qualified biologist.

Action LU-5.2C Require new development to implement best practices to protect biological resources, including incidental take minimization measures and other federal and State requirements and recommendations that are consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.

Action LU-5.2H Comply with applicable water conservation measures.

Action LU-5.2I Coordinate with water agencies and non-profit organizations to promote public awareness on water quality and conservation issues and consistency in water quality impacts analyses.

POLICY LU-5.4 Require water and energy conservation and efficiency in both new construction and retrofits.

Action LU-5.4A Require all new development, including major rehabilitation, renovation, and redevelopment, to adopt best management practices for water use efficiency and demonstrate specific water conservation measures.

Action LU-5.4B Require all new development, including major rehabilitation, renovation, and redevelopment, to incorporate feasible and appropriate energy conservation and green building practices, such as building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.

Action LU-5.4C Update the Citywide Design Guidelines to strengthen energy conservation and green building provisions.

4 Methods

4.1 Database and Literature Review

Prior to conducting the field survey, Dudek reviewed pertinent literature and online sources. This review consisted of the following online databases and reports: the USFWS Information, Planning, and Conservation (IPaC) Trust Resource Report, CDFW California Natural Diversity Database (CNDDDB), and the CNPS online Inventory of Rare and Endangered Vascular Plants. Additionally, iNaturalist and eBird were reviewed only to supplement the above listed databases (Appendix B: Database Search Results). "Threatened" and "verifiable" filters were applied to the iNaturalist search. The IPaC report was based on a query for the BSA (USFWS 2024e). Based on the capabilities of the databases a five-mile buffer around the BSA was searched on iNaturalist and eBird. CNDDDB and CNPS databases were queried for the nine USGS 7.5-minute quadrangles containing and immediately surrounding the BSA (*Stockton West, Stockton East, Waterloo, Lodi South, Terminous, Holt, Union Island, Lathrop, and Manteca*).

4.1.1 Key Definitions

Following a review of the above resources, Dudek biologists determined the potential for special-status plant and wildlife species to occur within the BSA. Determinations were based on a review of habitat types, soils, and elevation preferences, as well as the known geographic range and nearest occurrence records of each species. No protocol-level surveys for special-status species were conducted; the field survey was focused on evaluating the potential for the BSA to provide habitat for these species. The potential for occurrence of each species was summarized according to the categories listed below.

- **Known to occur:** the species has been documented in the BSA by a reliable source.
- **High potential to occur:** the species has not been documented in the BSA but is known to recently occur in the vicinity and suitable habitat is present.
- **Moderate potential to occur:** the species has not been documented in the BSA or vicinity, but the site is within the known range of the species and suitable habitat for the species is present.
- **Low potential to occur:** the species has not been documented in the BSA or vicinity, but the site is within the known range of the species; however, suitable habitat for the species is of low quality.
- **Not expected to occur:** the BSA is outside the known geographic or elevational range of the species and/or the site does not support suitable habitat for the species.

For the purposes of this analysis, special plant species are defined as plants that are legally protected or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. These species fall into one or more of the following categories:

- Listed by the federal government under the FESA of 1973 or the State of California under the CESA of 1970 as endangered, threatened, or rare.
- A candidate for federal or state listing as endangered or threatened.
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation.

- Population(s) in California that may be peripheral to the major portion of a taxon's range but are threatened with extirpation in California; and
- Taxa strongly associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats).

Taxa considered to be "rare, threatened, or endangered in California" as defined by CDFW are assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, as follows:

- **CRPR 1A:** Plants presumed to be extinct in California.
- **CRPR 1B:** Plants that are rare, threatened, or endangered in California and elsewhere.
- **CRPR 2A:** Plants presumed to be extinct in California, but more common elsewhere.
- **CRPR 2B:** Plants that are rare, threatened, or endangered in California, but more common elsewhere.
- **CRPR 3:** Plants about which more information is needed (a review list).
- **CRPR 4:** Plants of limited distribution (a watch list).

Plants ranked as CRPR 1A, 1B, 2A, or 2B may qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380. CDFW recommends that potential impacts to CRPR 1 and 2 species be evaluated in CEQA review documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to CEQA Guidelines Section 15380, but these species may be evaluated on a case-by-case basis (CDFW 2018).

Special-status wildlife species include species that meet any of the following criteria (some species may meet several criteria):

- Listed, proposed for listing, or candidates for listing as threatened or endangered under FESA.
- Listed or candidates for listing as threatened or endangered under CESA.
- Designated as Species of Special Concern by the CDFW.
- Designated as a fully protected species by the CFGC.
- Meet the definition of rare, threatened, or endangered as described in the CEQA Guidelines, Section 15380.

Sensitive Natural Communities

Natural vegetation communities are evaluated by CDFW and are assigned global (G), and state (S) ranks based on rarity of and threats to these vegetation communities in California. Sensitive natural communities are defined by CDFW as vegetation alliances with state ranks of S1–S3 (S1: critically imperiled, S2: imperiled, S3: vulnerable), as identified in the 2010 List of Vegetation Alliances and Associations and subsequent updates. Natural communities with ranks of S1–S3 are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents. Additionally, all vegetation associations within the alliances with ranks of S1–S3 are considered sensitive habitats. CEQA requires that impacts to sensitive natural communities be evaluated and mitigated to the extent feasible.

Sensitive natural communities are vegetation communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain special-status species or their habitats. For purposes of this assessment, sensitive natural communities are considered to include vegetation communities listed in CDFW's California Natural Diversity Database (CNDDDB) and communities listed in the California Natural Community List with a rarity rank of S1- S3 (CDFW 2023c).

4.2 Field Surveys

4.2.1 Reconnaissance Survey

Dudek biologist Elliot Maldonado performed a field survey of the approximately 47-acre BSA on February 21, 2024. The survey was conducted on foot to visually cover the entire BSA. Field notes, an aerial photograph with an overlay of the BSA, and a Trimble Geo 7X GPS unit were used to map vegetation communities and record any sensitive biological resources within the BSA. Because the field visit was conducted outside of the blooming season for special-status plants and the breeding season for wildlife species known to occur in the proposed project region, no protocol-level or focused surveys for special-status species were conducted. As such, the focus of the field visit was to assess overall habitat suitability for the target species identified in the literature and database review described in Section 4.1. Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was also scanned with binoculars to aid in the identification of wildlife.

4.2.2 Aquatic Resources Delineation

A preliminary aquatic resources/wetland assessment was conducted during the reconnaissance survey on February 21, 2024, to generally identify and coarsely map aquatic resources that may require further protocol jurisdictional delineations. The artificial pond is not mapped on the NWI or the EPA Waters GeoViewer (interactive map).

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5 Results

5.1 Vegetation Communities and Land Cover Types

Land cover in the BSA consists of terrestrial non-vegetative land covers and landscaped vegetation communities. The BSA consists of landscaped/horticultural vegetation with no native or natural communities present. Due to a lack of natural vegetation communities, land cover classification has been adapted from the CDFW Wildlife Habitats – California Wildlife Habitat Relationships System and cover classification. Three land cover types were documented in the BSA (CDFW 2024e; Table 1; Appendix A: Figure 4, Vegetation Communities and Land Covers). Representative photographs are presented in Appendix C.

Table 1. Vegetation Communities and Land Cover Types in the Study Area

CDFW Alliance Code	Vegetation Community or Land Cover Type	Rarity Rank		Acreage
		Global	State	
Land Cover Types				
N/A	Barren	N/A	N/A	1.72
N/A	Open Water	N/A	N/A	1.28
N/A	Urban/Developed	N/A	N/A	44.03
Total:				47.03

Notes: N/A = Not applicable.

5.1.1 Barren

Barren refers to areas where soil has been recently or repeatedly disturbed by grading, compaction, or clearing of vegetation. Structures are typically not present within barren land cover, and these areas provide relatively low value for most plant and wildlife species. Barren land cover occurs at the southeast portion of the BSA in a mostly vacant lot. The vacant lot has one dilapidated structure in the northwestern portion.

5.1.2 Open Water/Freshwater Pond (Lacustrine)

Freshwater pond (“artificial pond” for the purposes of this project) is described as ponded bodies of water persisting year-round that consist of less than 10% vegetative cover. Open water may support submerged aquatic communities and can contain various substrate compositions, largely determined by the surrounding environment (CDFW 2024e). Areas mapped as freshwater pond includes the artificial pond in the northern and central portions of the BSA. The purpose of the artificial pond is for campus aesthetics. The pond may provide marginal nesting habitat for waterfowl listed in Appendix D Species Observed.

5.1.3 Urban

Urban or developed land covers refer to areas that have been constructed on or otherwise physically altered to the point where vegetation is no longer present. Urban or developed areas are characterized by permanent or semi-permanent structures, hardscapes, and landscaped areas that require irrigation. The majority of the BSA is

urban/developed land cover (CDFW 2024e). The BSA consists of Stanislaus campus facilities, a hospital and other health facilities, portions of other school campuses, vacant dilapidated buildings, and associated roads and pathways. This land cover primarily supports ruderal and landscaped vegetation. Areas between facilities and campuses are landscaped with maintained grasses and some planting beds.

5.2 Observed Plant and Wildlife Species

Plant species in the BSA are horticultural, landscaped and maintained. Three nonnative plant species were documented within the BSA: the Bermuda buttercup (*Oxalis pes-caprae*) was observed at the base of some trees and buildings and watercress (*Nasturtium officinale*) and bur clover (*Medicago polymorpha*) were observed near the pond.

A detailed account of special-status wildlife on site is provided in Section 5.3.2 below. A common raven (*Corvus corax*), a species covered by the MBTA and CFGC, was observed nest building on the water tower just to the east of the bridge over the artificial pond. No other special-status wildlife species were observed during the biological field surveys. Over 50 State invasive red-eared slider (*Trachemys scripta elegans*) individuals (adults and juveniles) were observed basking and swimming in the artificial pond.

Note that potential limitations of the biological field survey include a diurnal bias for most wildlife species. The biological field surveys were conducted during the daytime to maximize visibility and detection of plants and most animals. As such, birds represent the largest component of vertebrate fauna recorded during the survey, as they are usually most active during daytime hours. In contrast, daytime surveys usually result in few observations of mammals, many of which may only be active at night, particularly rodent and bat species. Therefore, identification of mammals primarily relied on detection of surface sign such as scat, burrows, and tracks. Many reptile and amphibian species are similarly nocturnal and/or secretive in their habits and are difficult to observe using standard meandering transects. Despite these limitations, the biological field surveys performed were sufficient to conduct the biological assessment of plant and wildlife present and with the potential to occur in the BSA, which is based primarily on evaluating habitat on site.

5.3 Special-Status Species

5.3.1 Special-Status Plants

Based on the literature review and database searches, a total of 20 special-status plants have been recorded within the nine quads surrounding the BSA (Appendix A: Figure 4, Special-Status Species Occurrences; Appendix E, Special-Status Species' Potential to Occur within the BSA) (CDFW 2024b; CNPS 2024). All 20 plant species were removed from further consideration due to lack of suitable habitat within or adjacent to the BSA, no known occurrences within 5 miles of the BSA, and/or because the BSA is outside of the species' known geographic or elevation range.

5.3.2 Special-Status Wildlife

Based on the updated literature review and database searches, a total of 33 special-status wildlife species have been recorded within 5 miles of the Project site and/or within the 9 quadrangles in the vicinity of the BSA (Appendix

A: Figure 4; Appendix E) (CDFW 2024b; USFWS 2024e). Of these species, 31 were removed from further consideration due to lack of suitable habitat within or adjacent to the BSA, no known occurrences within 5 miles of the BSA, and/or because the BSA is outside of the species' known geographic or elevation range. These species are not addressed further in this report.

Two special-status wildlife species were determined to have a moderate potential, or are known to occur within the BSA: Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*).

5.3.2.1 Swainson's hawk (*Buteo swainsoni*)

Swainson's hawk is a California State threatened species. They are mainly limited to a few areas of the Central Valley and the Great Basin. In historic times (ca. 1900) There are hundreds of records of Swainson's hawks for San Joaquin County, including many nests in isolated trees. However, the best habitat is concentrated along permanent waterways with a more or less continuous canopy of trees with grassland, irrigated pasture, alfalfa or grain fields nearby. Swainson's hawks require large trees in which to nest, and nearby open grasslands, pastures, grain or alfalfa fields in which to forage. Vineyards, orchards, rice and cotton crops are unsuitable foraging habitat (SJCOG 2000). No Swainson's hawks were observed during the field surveys.

Swainson's hawk is known to occur in and around the BSA. The BSA is within the known geographic range of the species and contains suitable trees for nesting. There is marginal nesting habitat less than a mile north at the Stockton Rural and San Joaquin Catholic cemeteries. The city of Stockton is surrounded in all directions by agricultural land, suitable foraging/hunting habitat, within 5 miles of the BSA. There are onsite occurrence records of Swainson's hawk on CNDDDB and iNaturalist (CDFW 2024b, iNaturalist 2024). The iNaturalist occurrence is more recent, recorded in 2022. The two onsite CNDDDB occurrences were recorded in 1907. Additionally, there are multiple occurrence records within five miles on CNDDDB, iNaturalist, and eBird. No Swainson's hawks were observed during the field survey in February 2024.

5.3.2.2 Burrowing owl (*Athene cunicularia*)

Burrowing owl is a California Species of Special Concern with moderate potential to occur on the BSA. This species nests and forages in grassland, open scrub, and agricultural lands that contain ground squirrel burrows or burrow surrogates (e.g., concrete debris piles, culverts, riprap) for nesting and shelter.

There are several documented occurrences within five miles of the BSA on CNDDDB, eBird, and iNaturalist. The nearest record is on CNDDDB approximately 1 mile southwest of the BSA. The vacant lot in the southeast corner of the BSA contains barren habitat that could be utilized by this species as nesting and foraging. Burrows observed along the western border of this lot provide suitable nesting habitat for burrowing owl. No burrowing owl or their sign were noted during the February 2024 field survey.

5.3.4 Other Wildlife

5.3.4.1 Nesting Birds and Raptors

The BSA provides habitat for nesting birds protected by the federal MBTA and CFGC. Common raven, mallard, and other bird species were observed foraging on site and the vicinity. One common raven was observed nest building within the BSA during the survey.

5.3.4.2 Bats

There are no special status bat species listed in the database query results. However, tile roofing, dilapidated buildings, and trees provide roosting habitat for many common bat species. Additionally, the artificial pond provides foraging/hunting habitat for bats.

5.3.5 Invasive and Non-Native Species

Per Executive Order 13112 (Section 1. Definitions) an "invasive species" is a species that is:

- 1) non-native (or alien) to the ecosystem under consideration and,
- 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Non-native species are plants and animals living in areas where they do not naturally exist. "Non-native species" and "invasive species" cannot be used interchangeably. Many commonly grown fruits and vegetables are not native to the U.S. For example, tomatoes and hot peppers originated from South America, while lettuce was first grown by the Egyptians. Domestic cows are non-native to North America and were introduced as a food source, and considered to be a beneficial organism in an agricultural setting (USDA 2024b).

Invasive plants are those plants rated as moderate or high on the California Invasive Plant Council's Inventory (Cal-IPC 2024).

5.3.5.1 Invasive Plant Species

One invasive plant species was observed within the BSA: Bermuda buttercup. Bermuda buttercup has a Cal-IPC rating of Moderate, meaning it can have substantial and apparent, but not severe, ecological impacts on native habitats. Bermuda buttercup occurs around the base of some of the trees and buildings in the BSA.

5.3.5.2 Invasive Wildlife Species

Three invasive wildlife species were observed in the BSA including two bird species, house sparrow, and European starling, and one reptile species, red-eared slider.

5.4 Other Sensitive Resources

5.4.1 Designated Critical Habitat

Designated Critical Habitat (DCH) is designated by USFWS when a species is federally listed and represents areas of the species' range (or potential range) that contain essential features for the species' conservation (USFWS 2017). Due to the proximity of the San Joaquin River, DCH for delta smelt (*Hypomesus transpacificus*) occurs within 5 miles of the BSA. There is no DCH within the BSA.

5.4.2 Essential Fish Habitat

Essential Fish Habitat for spring run chinook salmon Central Valley evolutionarily significant unit (ESU) covers the BSA, due to the occurrence within the San Joaquin Delta watershed. There is no habitat for chinook salmon within the BSA.

5.4.3 Sensitive Natural Communities

There are no sensitive natural communities within the BSA or within five miles of the BSA.

5.4.4 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal. Because many wildlife species have specific habitat requirements for survival and dispersal, corridors may also be species specific. At a minimum, corridors promote local colonization or recolonization of distinct habitat patches and potentially increase genetic variability within and between populations. In addition, increased exposure to an inhospitable urban matrix due to reductions in connectivity can increase general mortality. All these factors can contribute significantly to local species extinctions. Thus, corridors help species populations, distributed in and among habitat patches, to persist over time.

The BSA has been subject to considerable disturbance from rapid and dense urban development since the 1940s. However, the artificial pond does provide marginal habitat for waterfowl protected by the MBTA and CFGC. The artificial pond also likely provides a reliable water resource to wildlife during periods of the year when nearby natural water resources are low or dry.

5.4.5 Aquatic Resources

One aquatic resource was identified within the BSA: freshwater pond (refer to Figure 4, Vegetation Communities and Land Covers). Approximately 1.28 acres of this pond were mapped within the northern portion of the BSA. The freshwater pond is part of University Park Lake, an isolated and manmade lake that extends north outside the BSA. The artificial pond is not mapped on the NWI or the EPA Waters GeoViewer (interactive map). Per the Final Rule Revised Definition of "Waters of the United States" Fact Sheet, the artificial pond is unlikely to be considered a federally jurisdictional "water(s) of the US" (EPA 2024a). Based on the definitions provided in the State Policy for

Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, the artificial pond may be considered a water of the State under the RWQCB. Additionally, the pond would be subject to jurisdiction under Section 1600 et seq of the CFGC and CDFW. The Master Plan does not propose direct impacts to the artificial pond; therefore, it is unlikely to that the proposed project will require any authorizations from either RWQCB or CDFW.

6 Determination

The project will require implementation of avoidance and minimization measures to mitigate for potential impacts to special-status species with potential to occur including Swainson’s hawk, burrowing owl, nesting birds, and roosting bats via removal or disturbance of habitat and resources. The proposed project is subject to CEQA; therefore, detailed determinations, impact analysis, and mitigation will be detailed in a CEQA compliant report. This BRA will contribute to the CEQA analysis.

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Appendix A

Figures 1-4



Project Boundary
 University Park Boundary

SOURCE: ESRI Imagery 2024; Open Street Map 2019



FIGURE 1
Project Location

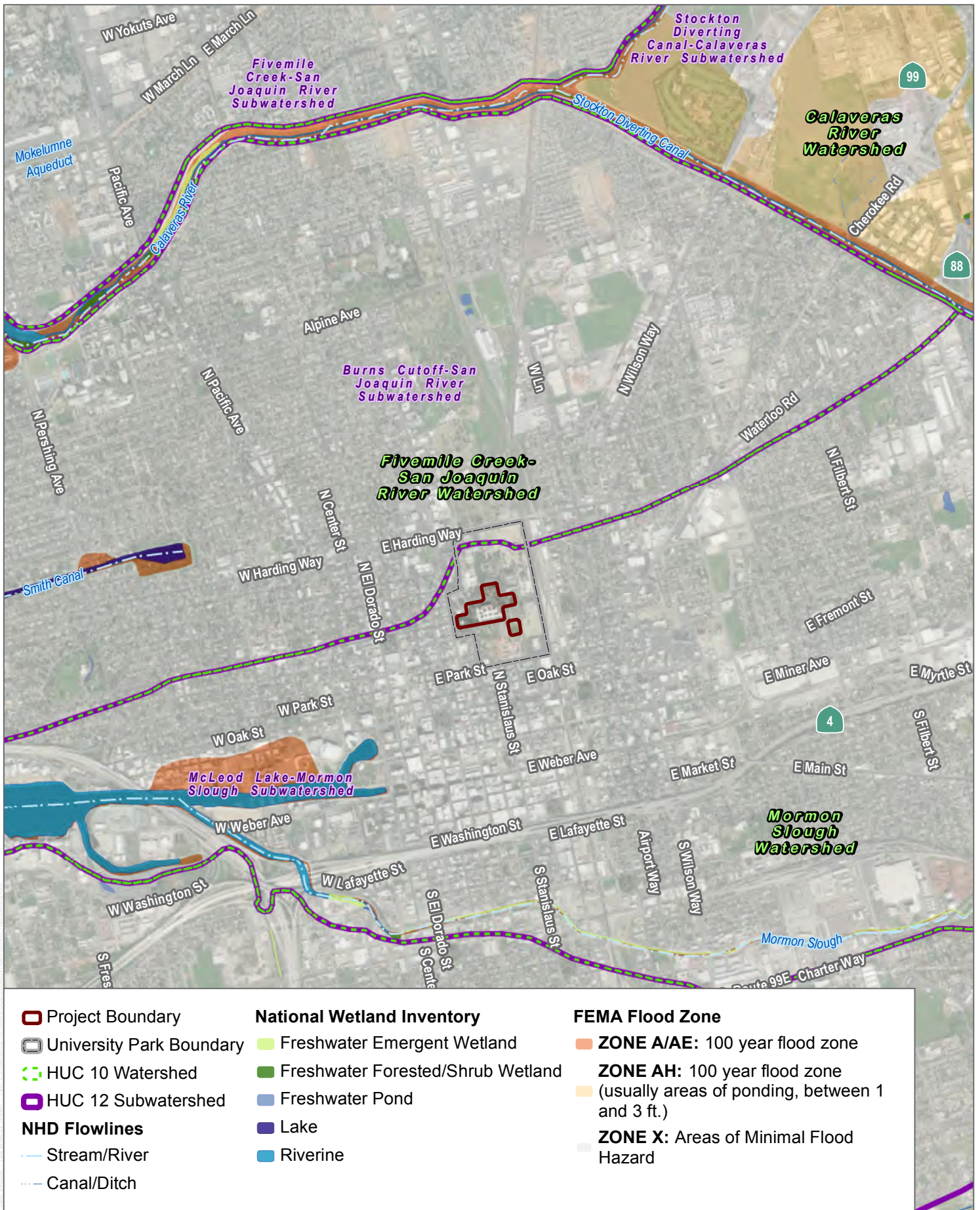
Stanislaus State University, Stockton Center Project



SOURCE: ESRI Imagery 2024; Open Street Map 2019

FIGURE 2
Project Site





SOURCE: ESRI Imagery 2024; Open Street Map 2019; USFWS 2023; USGS 2023; FEMA 2023

FIGURE 3

Hydrologic Setting



- ▭ Project Boundary
- Study Area Boundary
- University Park Boundary
- Vegetation Communities and Land Covers**
- URB, Urban/Industrial/Built (44.03 acres)
- BAR, Barren (1.72 acres)
- Pond, Freshwater Pond (1.28 acres)

SOURCE: ESRI Imagery 2024; Open Street Map 2019



FIGURE 4
Vegetation Communities and Land Covers
 Stanislaus State University, Stockton Center Project

Appendix B

Database Search Results

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Riparian Brush Rabbit <i>Sylvilagus bachmani riparius</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6189	Endangered

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

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

Flowering Plants

NAME	STATUS
Palmate-bracted Bird's Beak <i>Cordylanthus palmatus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1616	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Belding's Savannah Sparrow <i>Passerculus sandwichensis</i> beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

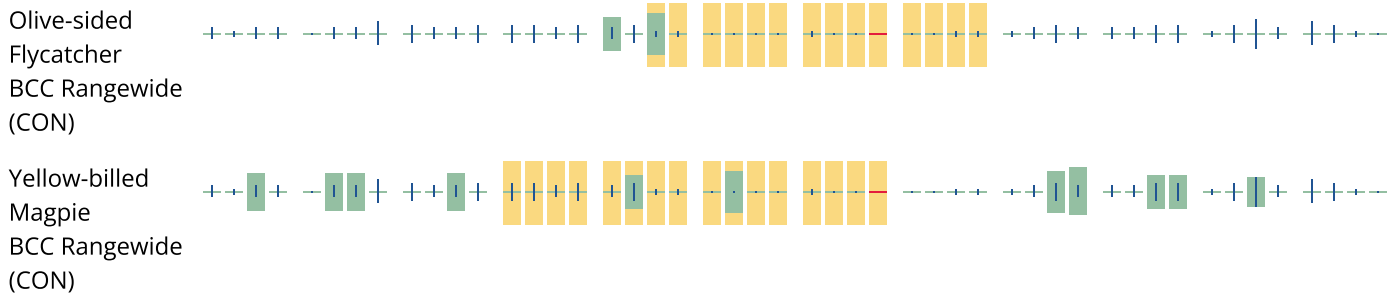
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix C

Photo Record



Photo 1. View facing southeast at Building 1.



Photo 2. View facing northeast toward landscaped area north of Building 1. Building 2 pictured far left background.



Photo 3. View facing east at road running between Buildings 1 and 2.



Photo 4. View facing southwest from landscaped area north of Building 1.



Photo 5. View facing northeast from the southwestern bank of the artificial pond.



Photo 6. View facing south from the western bank of the pond.



Photo 7. View facing north-northeast toward portion of the artificial pond north of the bridge.



Photo 8. View facing north-northwest toward portion of the artificial pond north of the bridge.



Photo 9. View facing southeast toward Building 2 pictured left.



Photo 10. View facing northeast toward Building 2.



Photo 11. View facing southeast toward Building 3.



Photo 12. View facing west toward Building 1 pictured left and Building 2 pictured right.



Photo 13. View facing southeast at open space area southeast of Building 1.



Photo 14. View facing south at open space area southeast of Building 1.



Photo 15. View facing north at barren area near the southeast portion of the PSA.



Photo 16. Potential burrowing owl habitat present in barren area.



Photo 17. View of the backside of Building 1, pictured left, and area south of that.



Photo 18. View facing west at area behind/south of Building 1.

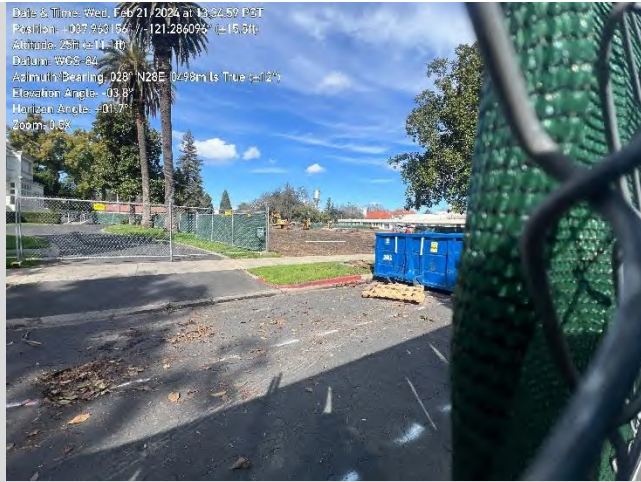


Photo 19. View facing northeast at the area between Building 1 and Building 4.



Photo 20. View facing north at area west of Building 4.

Appendix D

Plant and Wildlife Species Compendium

Wildlife Species

Birds

Blackbirds, Orioles and Allies

ICTERIDAE – BLACKBIRDS

Euphagus cyanocephalus – Brewer's blackbird

Finches

FRINGILLIDAE – FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus – house finch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Hawks

ACCIPITRIDAE – HAWKS, KITES, EAGLES, & ALLIES

Buteo lineatus – red-shouldered hawk

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Hummingbirds

TROCHILIDAE – HUMMINGBIRDS

Calypte anna – Anna's hummingbird

Jays, Magpies & Crows

CORVIDAE – CROWS & JAYS

Aphelocoma californica – California scrub-jay

Corvus corax – common raven

Kinglets

REGULIDAE – KINGLETS

Regulus calendula – ruby-crowned kinglet

Mockingbirds & Thrashers

MIMIDAE – MOCKINGBIRDS & THRASHERS

Mimus polyglottos – northern mockingbird

New World Vultures

CORVIDAE – NEW WORLD VULTURES

Cathartes aura – turkey vulture

Old World Sparrows

CORVIDAE – OLD WORLD SPARROWS

* *Passer domesticus* – house sparrow

Pigeons & Doves

COLUMBIDAE – PIGEONS & DOVES

Zenaida macroura – mourning dove

* *Columba livia* – rock pigeon (rock dove)

Starlings & Allies

STURNIADAE – STARLINGS

* *Sturnus vulgaris* – European starling

Waterfowl

ANATIDAE – DUCKS, GEESE, & SWANS

Anas platyrhynchos – mallard

Branta canadensis – Canada goose

Bucephala albeola – bufflehead

Mergus merganser – common merganser

Waxwings

BOMBYCILLIDAE – WAXWINGS

Bombycilla cedrorum – cedar waxwing

Woodpeckers

PICIDAE – WOODPECKERS & ALLIES

- * *Melanerpes formicivorus* – acorn woodpecker

New World Sparrows

PASSERELLIDAE – NEW WORLD SPARROWS

- Zonotrichia leucophrys* – white-crowned sparrow

Reptiles

Lizards

PHRYNOSOMATIDAE – IGUANID LIZARDS

- Sceloporus occidentalis* – western fence lizard

Turtles

PICIDAE – WOODPECKERS & ALLIES

- * *Trachemys scripta elegans* – red-eared slider

- * signifies introduced (non-native) species

Appendix E

Special-Status Species Potential to Occur within the Project Study Area

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	None/None/1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools; Alkaline/annual herb/Mar–June/5–195	Not expected to occur. The site is disturbed and lacks vernal pools, playas, and valley and foothill grassland. The soils on site are not alkaline (USGS 2024). The nearest record a historical, extirpated population 1 mile west along Smith Canal from 1927 (Occ #10; CDFW 2024).
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	None/None/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland (sandy); Alkaline (sometimes)/annual herb/Apr–Oct/0–1,835	Not expected to occur. The site is disturbed and lacks suitable habitat. The soils on site are not alkaline (USGS 2024). The nearest record is a historical, extirpated population that overlaps the Project site in the vicinity of Stockton from 1896 (Occ #87; CDFW 2024).
<i>Blepharizonia plumosa</i>	big tarplant	None/None/1B.1	Valley and foothill grassland; Clay (usually)/annual herb/July–Oct/100–1,655	Not expected to occur. Annual grassland on the site is disturbed. The nearest record is an undefined record that overlaps the Project site recorded in 1874 (Occ #61; CDFW 2024).
<i>Brasenia schreberi</i>	watershield	None/None/2B.3	Marshes and swamps (freshwater)/perennial rhizomatous herb (aquatic)/June–Sep/0–7,215	Not expected to occur. No suitable habitat present. The nearest record is a historical population that overlaps the Project site recorded in 1925 (Occ #7; CDFW 2024).
<i>Carex comosa</i>	bristly sedge	None/None/2B.1	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland/perennial rhizomatous herb/May–Sep/0–2,050	Not expected to occur. The site is disturbed and lacks suitable habitat. The nearest record is a historical population 7 miles west (Occ #3; CDFW 2024).
<i>Chloropyron palmatum</i>	palmate-bracted bird's-beak	FE/SE/1B.1	Chenopod scrub, Valley and foothill grassland; Alkaline/annual herb (hemiparasitic)/May–Oct/15–510	Not expected to occur. The site is disturbed and lacks suitable habitat. The soils on site are not alkaline (USGS 2024). The nearest record is a historical population that overlaps the Project site recorded in 1881 (Occ #8; CDFW 2024).
<i>Cirsium crassicaule</i>	slough thistle	None/None/1B.1	Chenopod scrub, Marshes and swamps (sloughs), Riparian	Not expected to occur. No suitable habitat present. The nearest record is 10 miles south

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			scrub/annual/perennial herb/May-Aug/10-330	near the San Joaquin River and recorded in 1974 (Occ #2; CDFW 2024).
<i>Delphinium recurvatum</i>	recurved larkspur	None/None/1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland; Alkaline/perennial herb/Mar-June/10-2,590	Not expected to occur. The site is disturbed and lacks suitable habitat. The soils on site are not alkaline (USGS 2024). The nearest record is 6 miles southeast recorded in 1937 (Occ #73; CDFW 2024).
<i>Eryngium racemosum</i>	Delta button-celery	None/SE/1B.1	Riparian scrub (vernally mesic clay depressions)/annual/perennial herb/(May)June-Oct/10-100	Not expected to occur. The site is disturbed and lacks riparian scrub habitat. The nearest record is 9 miles east in disturbed area near orchards and recorded in 1984 (Occ #9; CDFW 2024).
<i>Extriplex joaquinana</i>	San Joaquin spearscale	None/None/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland; Alkaline/annual herb/Apr-Oct/5-2,735	Not expected to occur. The site is disturbed and lacks suitable habitat. The soils on site are not alkaline (USGS 2024). The nearest record overlaps with the project site from 1927 and extirpated (Occ #70; CDFW 2024). The next closest record is 18 miles west near Discovery Bay from 2008 (Occ #103; CDFW 2024).
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	None/None/1B.2	Marshes and swamps (freshwater)/perennial rhizomatous herb (emergent)/June-Sep/0-395	Not expected to occur. No suitable habitat present. The nearest record is 4 miles west along Calaveras River from 1990 (Occ #11; CDFW 2024).
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	None/None/1B.2	Marshes and swamps (brackish, freshwater)/perennial herb/May-July (Aug-Sep)/0-15	Not expected to occur. No suitable habitat present. The nearest record is 3 miles southwest from 1903 (Occ #9; CDFW 2024).
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	None/SR/1B.1	Marshes and swamps (brackish, freshwater), Riparian scrub/perennial rhizomatous herb/Apr-Nov/0-35	Not expected to occur. No suitable habitat present. The nearest record is 3 miles northwest along Fourteen Mile Slough from 2000 (Occ #157; CDFW 2024).
<i>Limosella australis</i>	Delta mudwort	None/None/2B.1	Marshes and swamps (brackish, freshwater), Riparian scrub; Streambanks (usually)/perennial stoloniferous herb/May-Aug/0-10	Not expected to occur. No suitable habitat present. The nearest record is 12 miles southwest along Victoria Canal from 2009 (Occ #35; CDFW 2024).

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	None/None/1B.2	Marshes and swamps (shallow freshwater)/perennial rhizomatous herb (emergent)/May–Oct (Nov)/0–2,130	Not expected to occur. No suitable habitat present. An undefined historical record from 1901 overlaps with the Project area (Occ #54; CDFW 2024).
<i>Scutellaria lateriflora</i>	side-flowering skullcap	None/None/2B.2	Marshes and swamps, Meadows and seeps (mesic)/perennial rhizomatous herb/July–Sep/0–1,640	Not expected to occur. No suitable habitat present. The nearest record is 14 miles northwest on Bouldin Island from 1892 (Occ #2; CDFW 2024).
<i>Symphotrichum lentum</i>	Suisun Marsh aster	None/None/1B.2	Marshes and swamps (brackish, freshwater)/perennial rhizomatous herb/(Apr)May–Nov/0–10	Not expected to occur. No suitable habitat present. The nearest record is 2 miles north along Calaveras River from 1926 (Occ #200; CDFW 2024).
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis	None/None/2B.1	Marshes and swamps, Meadows and seeps, Riparian forest, Vernal pools; Alkaline/annual herb/May–Sep/15–1,425	Not expected to occur. No suitable habitat present. The soils on site are not alkaline (USGS 2024). The nearest record is 12 miles south near San Joaquin River from 1914 (Occ #6; CDFW 2024).
<i>Trifolium hydrophilum</i>	saline clover	None/None/1B.2	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools/annual herb/Apr–June/0–985	Not expected to occur. The site is disturbed and lacks suitable habitat. The nearest record overlaps with the Project area is from 1928 and extirpated (Occ #46; CDFW 2024). There are no additional records within 20 miles (CDFW 2024).
<i>Tropidocarpum capparideum</i>	caper-fruited tropidocarpum	None/None/1B.1	Valley and foothill grassland (alkaline hills)/annual herb/Mar–Apr/5–1,490	Not expected to occur. The site is disturbed and lacks suitable habitat. The soils on site are not alkaline (USGS 2024). The nearest record is 9 miles south in Lathrop from 1881 (Occ #26; CDFW 2024). The next closest record is near Discovery Bay and extirpated (Occ #9; CDFW 2024).

"Status Legend:

FE: Federally listed as endangered

FT: Federally listed as threatened

FC: Federal Candidate for listing

DL: Delisted

SE: State listed as endangered

ST: State listed as threatened

SC: State Candidate for listing

SR: State Rare

CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere

CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere

CRPR 2A: Plants presumed extirpated in California but common elsewhere

CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)"

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
Amphibians				
<i>Ambystoma californiense</i> pop. 1	California tiger salamander - central California DPS	FT/ST, WL	Annual grassland, valley-foothill hardwood, and valley-foothill riparian habitats; vernal pools, other ephemeral pools, and (uncommonly) along stream courses and man-made pools if predatory fishes are absent	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is from 1923 approximately 1 mile west and considered extirpated (Occ #305; CDFW 2023). There are no additional CNDDDB occurrences within 10 miles (CDFW 2024).
<i>Spea hammondi</i>	western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley-foothill woodlands, pastures, and other agriculture	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is from 1922 approximately 2 miles southwest where larvae were observed in roadside pools (Occ #1366; CDFW 2023). There are no additional CNDDDB occurrences within 10 miles (CDFW 2024).
Reptiles				
<i>Thamnophis gigas</i>	giant garter snake	FT/ST	Freshwater marsh habitat and low-gradient streams; also uses canals and irrigation ditches	Not expected to occur. The project site is within the species' geographic range; however, no suitable habitat is present. There are two CNDDDB records from 1880 and 1976 approximately 2 miles west and east respectively along canals (Occ #351 and #55; CDFW 2024). Three individuals were collected in 1880 and an unknown number were detected in 1976 (CDFW 2024).
<i>Actinemys marmorata</i>	northwestern pond turtle	FPT/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The artificial pond lacks basking sites. The nearest iNaturalist occurrence record is from 2014 approximately 2 miles

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
				northwest in the Calaveras River. The nearest CNDDDB record is from 2005 approximately 10 miles southwest in Trapper Slough (Occ #288; CDFW 2024).
Birds				
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is an undefined area that overlaps the project site from 1885 (Occ #980; CDFW 2024). A 2024 eBird record in Tracy is approximately 15 miles southwest (eBird 2024).
<i>Asio otus</i> (nesting)	long-eared owl	None/SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	Not expected to occur. Suitable habitat is not present. There are no CNDDDB records within 20 miles of the site (CDFW 2024).
<i>Athene cunicularia</i> (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Moderate potential to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is approximately 1 mile southwest in a vacant parking lot from 1999 (Occ #329; CDFW 2024). There are a total of 20 CNDDDB records within 5 miles of the project site (CDFW 2024). A 2024 eBird record along Waverly Road about 18 miles east (eBird 2024).
<i>Baeolophus inornatus</i> (nesting)	oak titmouse	BCC/None	Nests and forages in oak woodlands; also open pine forest, pinyon woodland, and riparian and chaparral with oak	Not expected to occur. Suitable habitat is not present. The nearest eBird record is less than 1 mile north in 2007 in an area with suitable habitat (eBird 2024).

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Known to occur. The project site is within the species' geographic range; large trees in the project study area provide suitable nesting habitat and are within proximity to suitable foraging/hunting habitat. A CNDDDB record from 2009 overlaps with the project site (Occ #1241; CDFW 2024). In varying years, the nest was in a valley oak, deodar cedar, or eucalyptus (CDFW 2024). There are a total of 52 CNDDDB records within 5 miles of the project site (CDFW 2023). A 2024 eBird record in Tracy is approximately 15 miles southwest (eBird 2024).
<i>Contopus cooperi</i> (nesting)	olive-sided flycatcher	BCC/SSC	Nests in mixed-conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine habitats; usually close to water	Not expected to occur. Suitable habitat is not present. The nearest record is from 2018 approximately 1 mile north in an area with suitable habitat (iNaturalist 2024, eBird 2024).
<i>Dryobates nuttallii</i>	Nuttall's woodpecker	BCC/None	Primarily oak woodlands, but also riparian woodland, chaparral, and rarely conifer forests	Not expected to occur. Suitable habitat is not present. The nearest record is from 2020 approximately 1 mile north in an area with suitable habitat (iNaturalist 2024).
<i>Elanus leucurus</i> (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Not expected to occur. The site is within the species' geographic range but lacks suitable nesting habitat. The nearest CNDDDB record is approximately 3 miles south in valley oak riparian habitat from 2002 (Occ #110; CDFW 2024). A 2022 iNaturalist record is approximately 3 miles west in a park (iNaturalist 2024).
<i>Icterus bullockii</i>	Bullock's oriole	BCC/None	Riparian and oak woodlands, as well as Eucalyptus woodland	Not expected to occur. Suitable habitat is not present. The nearest record is approximately 5 miles northwest near the

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
				San Joaquin River from 2015 (iNaturalist 2024). A 2023 eBird record is approximately 19 miles southwest near Clifton Court Forebay (eBird 2024).
<i>Lanius ludovicianus</i> (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Not expected to occur. The project site is within the species' geographic range but lacks suitable nesting habitat. The nearest CNDDDB record is approximately 12 miles south in Lathrop in an empty lot from 2016 (Occ #112; CDFW 2024). The nearest iNaturalist record is approximately 8 miles southeast in French Camp RV Park from 2023 (iNaturalist 2024).
<i>Larus californicus</i> (nesting colony)	California gull	BCC/WL	Nests in alkali and freshwater lacustrine habitats; abundant in coastal and interior lowlands during non-nesting period	Not expected to occur. Suitable habitat is not present. There are no records within 20 miles of the site (CDFW 2024).
<i>Laterallus jamaicensis coturniculus</i>	California black rail	None/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. The project site is outside the species' geographic range and no suitable habitat present. The nearest CNDDDB record is approximately 7 miles northwest along Fourteen Mile Slough from 2010 (Occ #298; CDFW 2024).
<i>Melospiza melodia</i> ("Modesto" population)	song sparrow ("Modesto" population)	None/SSC	Nests and forages in emergent freshwater marsh, riparian forest, vegetated irrigation canals and levees, and newly planted valley oak (<i>Quercus lobata</i>) restoration sites	Not expected to occur. The site is within the species' geographic range, but suitable habitat is not present. The nearest CNDDDB record is approximately 6 miles northwest near Rindge Tract in marsh habitat from 2009 (Occ #20; CDFW 2024). The nearest iNaturalist record is approximately 6 miles northwest in a park from 2015 (iNaturalist 2024).
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	BCC/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. No suitable vegetation present. There are no CNDDDB records within 20 miles of the site (CDFW 2024).

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
<i>Pica nuttalli</i> (nesting & communal roosts)	yellow-billed magpie	BCC/None	Nests and forages in open oak and riparian woodland; also farm and ranchlands with large trees	Low potential to occur. Trees onsite provide marginal nesting habitat. There are multiple eBird occurrences within 5 miles (eBird 2024). The nearest CNDDDB record is potentially extirpated and approximately 20 miles south near the Stanislaus River from 1977 (Occ #141; CDFW 2024).
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. The project is not within the species' geographic range. Suitable nesting habitat is not present. One historical, undefined CNDDDB record from 1878 overlaps with the project site; a male and nest with eggs were collected (Occ #510; CDFW 2024).
<i>Xanthocephalus xanthocephalus</i> (nesting)	yellow-headed blackbird	None/SSC	Nests in marshes with tall emergent vegetation, often along borders of lakes and ponds; forages in emergent wetlands, open areas, croplands, and muddy shores of lacustrine habitat	Not expected to occur. The project is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is from 1894 approximately 9 miles south in Lathrop; a set of eggs were collected (Occ #5; CDFW 2024).
Fishes				
<i>Acipenser medirostris</i> pop. 1	green sturgeon – southern DPS	FT/None	Spawns in deep pools in large, turbulent, freshwater rivers; adults live in oceanic waters, bays, and estuaries	Not expected to occur. Suitable habitat is not present. There are two CNDDDB records from 2019 and 2020 approximately 3 miles west in the Sacramento-San Joaquin Delta (Occ #6 and #9; CDFW 2024).
<i>Hypomesus transpacificus</i>	Delta smelt	FT/SE	Sacramento–San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay	Not expected to occur. Suitable habitat is not present. The nearest CNDDDB record is from 2007 approximately 4 miles west in San Joaquin River (Occ #16; CDFW 2024).

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
<i>Oncorhynchus mykiss irideus</i> pop. 11	southern steelhead – Central Valley DPS	FE/SCE	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. Suitable habitat is not present. The nearest CNDDDB record is from 2010 approximately 1 mile south in Lower Calaveras River (Occ #23; CDFW 2024).
<i>Spirinchus thaleichthys</i>	longfin smelt	FC/ST	Aquatic, estuary	Not expected to occur. Suitable habitat is not present. The nearest CNDDDB record is from 2012 approximately 3 miles west in San Joaquin River (Occ #36; CDFW 2024).
Mammals				
<i>Sylvilagus bachmani riparius</i>	riparian brush rabbit	FE/SE	Dense thickets of wild rose, willows, and blackberries growing along the banks of San Joaquin and Stanislaus Rivers	Not expected to occur. The project is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is from 2004 approximately 9 miles south near the San Joaquin River in agricultural land (Occ #9; CDFW 2024).
<i>Taxidea taxus</i>	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. The project site is within the species' geographic range; however, there is no suitable habitat present. The nearest CNDDDB record is from 1938 approximately 16 miles southwest in Tracy (Occ #215; CDFW 2024).
Invertebrates				
<i>Bombus crotchii</i>	Crotch's bumble bee	None/SCE	Open grassland and scrub communities supporting suitable floral resources.	Not expected to occur. The project site is within the species' geographic range. The site is highly disturbed and lacks floral resources to support a colony throughout the year. The nearest CNDDDB record is from 1959 approximately 16 miles southwest in Tracy (Occ #19; CDFW 2024).

Scientific Name	Common Name	Status ¹ (Federal/State)	Habitat	Potential to Occur ²
<i>Bombus occidentalis</i>	western bumble bee	None/SCE	Once common and widespread, species has declined precipitously from central California to southern British Columbia, perhaps from disease	Not expected to occur. The project site is outside the species' geographic range(CDFW 2024). The project site lacks floral resources to support this species throughout its active season. The nearest CNDDDB record is from 1962 approximately 11 miles southwest in the vicinity of Manteca (Occ #234; CDFW 2024).
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. There are no CNDDDB records within 10 miles of the project site (CDFW 2024).
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>)	Not expected to occur. The project site is within the species' geographic range. No elderberry shrubs/host plant present. The nearest CNDDDB record is from 1984 approximately 8 miles southwest along Wing Levee Road (Occ #158; CDFW 2024).
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	FE/None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales	Not expected to occur. The project site is within the species' geographic range; however, suitable habitat is not present. The nearest CNDDDB record is from 1990 approximately 7 miles north in Lodi; one individual was collected (Occ #210; CDFW 2024).
<i>Danaus plexippus plexippus</i> pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. The project site is within the species' geographic range; however, no suitable overwintering habitat or milkweed plants present. here are no CNDDDB records within 10 miles of the project site (CDFW 2024).

¹ Status Abbreviations

FE: Federally listed as endangered

FT: Federally listed as threatened
FPE: Federally proposed for listing as endangered
FPT: Federally proposed for listing as threatened
FC: Federal candidate species (former Category 1 candidates)
FPD: Federally proposed for delisting
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
BLM: Bureau of Land Management Sensitive Species
USFS: U.S. Forest Service Sensitive Species
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State listed as endangered
ST: State listed as threatened
SC: State candidate for listing as threatened or endangered
SCE: State candidate for listing as endangered
SCT: State candidate for listing as threatened
SCD: State candidate for delisting
CDF: California Department of Forestry Sensitive Species

2 Resources

CNDDDB: Records within 20 miles
eBird: Observations with photos
iNaturalist: Research grade observations

References

CDFW (California Department of Fish and Wildlife). 2023. California Natural Diversity Database (CNDDDB). RareFind, Version 5. (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Accessed April 10, 2023.

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