

BIOLOGICAL RESOURCES SURVEY REPORT FOR THE 8881 CALVINE CHEVRON PROJECT, SACRAMENTO COUNTY, CA

PREPARED BY: STRINGER BIOLOGICAL CONSULTING, INC.

INTRODUCTION

Stringer Biological Consulting, Inc. (SBC) has prepared this Biological Resources Survey Report (report) for the 8881 Calvine Chevron Project under review by Sacramento County Planning and Environmental Review (Control No.: PAMP2023-00036). The purpose of this report is to document the results of a biological survey conducted at the proposed project site in accordance with the South Sacramento Habitat Conservation Plan (SSHCP), as well as to document existing biological resources in the proposed project site and to assess the potential for sensitive biological resources including special-status species, sensitive natural communities, or other protected biological resources such as wetlands or other waters of the U.S. or State to occur in the project site and/or be impacted by activities on the project site. SSHCP Avoidance and Minimization Measures (AMMs) that may be applicable to the project are included as recommendations to avoid or reduce any potential impacts that could occur as a result of project activities.

Project Applicant, Location, and Description

The Applicant is Mr. Baljit Singh. His physical address is 8517 Hawley Way, Elk Grove, CA 95624. The project site (APN 115-0120-019) is approximately 2.4 acres in size and is located at 8881 Calvine Road in the Vineyard community in unincorporated Sacramento County. The Project site is located in Township 07N, Range 05E, Section 13 of the "Elk Grove, CA" U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad). Figure 1 in Attachment A is a Regional Location and Vicinity Map, and Figure 2 in Attachment A is an Aerial Map.

The project under review consists of development of a fueling station with six fuel dispensers, a 5,000 square foot convenience store attached to a small, 1,230 square foot drive through café, a 6,108 square foot restaurant and retail space, and a 975 square foot drive-through car wash. The project is located within the Light Commercial zoning district.

METHODS:

Biological Studies

Biological studies conducted in support of this report included a special-status species evaluation and a biological reconnaissance survey. The special-status species evaluation was conducted in order to assemble a list of regionally-occurring special-status species with the potential to occur in the project region and/or be impacted by proposed projects in the region. The biological reconnaissance survey was conducted to document the special-status species, including SSHCP covered species, as well as habitats,

and SSHCP landcover types on and within 250 feet of the project site and to determine whether any of the special-status species have the potential to be impacted by the proposed project activities. An arborist survey was also conducted to inventory and assess the trees in the project site.

Special-Status Species Evaluation

For the purposes of this report, special-status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the Federal Endangered Species Act (FESA; including candidates and species proposed for listing);
- listed as endangered or threatened under the California Endangered Species Act (CESA; including candidates and species proposed for listing);
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- considered by CDFW to be a Watch List species with potential to become an SSC;
- defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA); or
- having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, or 3.

Special-status species meeting the criteria above and all 28 of the SSHCP Covered Species are collectively referred to as special-status species for the purposes of this report.

The special-status species evaluation included obtaining lists of special-status species and sensitive natural communities with the potential to occur in the project region from the following sources: the U.S. Fish and Wildlife Service (USFWS) online list of federally-listed special-status species with the potential to occur in, or be affected by projects in the site and the list of reported occurrences of special-status species in the California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) database for the “Elk Grove, CA” USGS 7.5-minute topographic quadrangle (quad) and the eight surrounding USGS quads (Sacramento East, Carmichael, Buffalo Creek, Sloughhouse, Clay, Galt, Bruceville, and Florin). A list of land cover types and SSHCP Covered Species with modeled habitat on the project site was also obtained from Sacramento County and a review of the SSHCP (County of Sacramento et. al., 2018). Results of these queries are included in Attachment B. Special status species with the potential to occur in the project vicinity were compared with the habitats on site at the time of the biological reconnaissance and other factors such as soil types on the project site and elevational and geographic ranges of the special-status species to determine if a species has the potential to occur within the project site.

Biological Reconnaissance Survey

SBC Principal Biologist Stephen Stringer, M.S. and Senior Environmental Scientist Matt Fremont conducted a biological reconnaissance survey on October 25, 2023, in order to characterize and map the biological habitats and document existing biological resources within the project site. The survey was conducted between 11:30 am and 2:00 pm. The weather was mostly cloudy with light winds on the day of the survey and the temperature ranged from 63° to 65° Fahrenheit. The biological reconnaissance survey area consisted of the entire approximately 2.4-acre project site. Areas within a 250-foot radius of the project site were assessed from within the project site as all surrounding lands are private. The site was searched for the presence of special-status species, habitats for special-status species, and sensitive natural communities and the habitat was documented according to SSHCP land cover types. A wetland reconnaissance survey was also conducted to search for the presence of potential wetlands or other waters of the U.S. and State. Plant and animal species observed on the project site that were identifiable at the time of the biological reconnaissance survey were documented. Attachment C is a list of species observed on the site during the survey.

Mr. Stringer holds a B.S. and M.S. in Biological Sciences with a focus in Biological Conservation from California State University, Sacramento and has more than 20 years of experience conducting biological and wetland studies in northern and central California. Mr. Stringer holds a U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit (TE-141359-4) for vernal pool branchiopods and California tiger salamander (Central DPS), a CDFW Rare Plant Voucher Collecting Permit (No. 2081(a)-22-093-V), a CDFW Specific Use Scientific Collecting Permit (S-230460010-23048-001) for California tiger salamander, special-status vernal pool branchiopods, western spadefoot, and common reptiles and amphibians, is an International Society of Arboriculture, Certified Arborist (WE-7129A), and is a part-time instructor for plant identification and wetland delineation courses for the Wetland Training Institute (WTI). Matt Fremont is an Environmental Scientist/GIS specialist with more than 20 years of experience assisting with biological surveys, wetland delineations, botanical surveys, arborist surveys and other biological surveys throughout northern California.

Arborist Survey

An arborist survey was conducted to provide the Sacramento County Department of Planning and Environmental Review with an inventory and assessment of trees that may be affected by the proposed project. The assessment included all on-site trees and off-site trees overhanging the site that meet the County requirements in the Guidelines. These included all native oak and specified non-oak native trees (included in the species list in the Guidelines) that are 4 inches in diameter (dbh) and larger (or 10-inch aggregate diameter for multi-trunk native oak and Northern California black walnut trees). All trees were tagged (by others), and the trunk location of each tree was mapped with a submeter accurate GNSS receiver paired to an iPhone running the ArcGIS Field Maps application. For each tree meeting the County requirements, the arborist report included the species, diameter, health, condition, a recommendation for preservation or removal, and general recommendations for protection of the tree on the site during and after construction. For trees that do not meet the County requirements as a native oak or specified non-oak native tree, the location, diameter, and dripline were recorded per the County's arborist report guidelines. The full arborist report is separately bound. However, the results of the arborist report are summarized in this report.

Habitat Classification and Plant Nomenclature

Habitat classification in this report is based on the SSHCP land cover types. Plant nomenclature is based on the Jepson eFlora available at: <https://ucjeps.berkeley.edu/eflora>.

Regulatory Background

Special-Status Species and Nesting Birds

For the purpose of this technical memorandum, special-status species are defined as: species listed under the Federal Endangered Species Act of 1973 (hereafter, "FESA," 16 USC Section 1531 et seq.) as Threatened or Endangered, as well as Candidate species and species proposed for listing; species listed under the California Endangered Species Act (CESA) of 1970 (California Fish and Game Code Section 2050 et seq., and California Code of Regulations Title 14, Subsection 670.2, 670.51) as Threatened or Endangered, as well as Candidate species and species proposed for listing; species of special concern or watch list species as designated by the CDFW; species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under these criteria, or by the scientific community [CEQA Guidelines subsection 15380(b) and (d)]; and plant species considered rare according to the California Native Plant Society (CNPS); specifically plants with a California Rare Plant Rank of 1A, 1B, 2, and 3 are considered special-status species under CEQA.

While not technically considered special-status species, migratory bird species listed on the federal list (50 CFR Section 10.13) are protected under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712). Migratory bird species and their nests and eggs are protected from injury or death. California Fish and Game Code Subsections 3503, 3503.5, and 3800 also prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. Therefore, potential impacts to migratory birds and nesting birds are discussed.

South Sacramento Habitat Conservation Plan (SSHCP)

The SSHCP encompasses the Sacramento County Urban Services Boundary, the incorporated Cities of Rancho Cordova and Galt, and Galt's Sphere of Influence. The purpose of the SSHCP is to ensure the long-term survival of the species covered in the Plan by preserving and establishing/re-establishing the habitats, natural communities, and ecosystem functions that they rely on, while allowing appropriate and compatible urban growth and developments. The SSHCP also requires measures that will avoid, minimize, and mitigate impacts to the species, thereby addressing the permitting requirements relevant to these species for activities conducted by or under the jurisdiction of the SSHCP Permittees. The SSHCP covers 28 species that have potential to occur in the SSCHP plan area that are currently listed as threatened or endangered under FESA or CESA, or that have potential to become listed during the 50-year life of the SSHCP. The SSCHP allows Plan Permittees (i.e., County of Sacramento, City of Galt, City of Rancho Cordova, Sacramento County Water Agency, and the Southeast Connector Joint Powers Authority) to receive incidental take permits under FESA and CESA for covered activities and projects they conduct and those under their jurisdiction.

Jurisdictional Waters

Any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE)

under Section 404 of the Clean Water Act (CWA; 33 USC 1344) or Section 10 of the Rivers and Harbors Act. The Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Within non-tidal waters, in the absence of adjacent wetlands, the extent of USACE jurisdiction extends to the ordinary high water mark (OHWM), which is defined as:

“A line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris.”

Wetlands are defined in 33 CFR Part 328 as:

“Areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) for impacts to “Waters of the State”, which are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Impacts to “Waters of the State” may also require a Lake or Streambed Alteration Agreement from CDFW under Section 1600 et seq. of the California Fish and Game Code. A Lake or Streambed Alteration Agreement is required if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of streambeds.

Protected Trees

Sacramento County has adopted measures for the preservation of native trees through the County Code and the General Plan.

Chapter 19.12 of the County Code, titled “*Tree Preservation and Protection*”, provides protection for native oak trees in the designated urban area of the unincorporated county. Native oaks are defined as valley oak (*Quercus lobata*), interior live oak (*Q. wislizeni*), blue oak (*Q. douglasii*), and oracle oak (*Q. x morehus*) trees having a diameter-at-breast-height (DBH) of at least 6 inches for a single stem tree or a combined DBH of 10 inches for a tree with multiple stems. Grading, trenching, or filling within the dripline, or removal, destruction, or killing of a tree as defined in the ordinance is prohibited without a tree permit. Tree permits are issued by the Director of Public Works or by the body approving a discretionary action such as a conditional use permit.

Section 19.12.150 provides authority to approving bodies to adopt mitigation measures as conditions of approval for discretionary projects in order to protect other species of trees in addition to native oaks. The Tree Preservation Ordinance does not specify replacement obligations for native oaks removed under a tree permit; the approving body may impose “reasonable conditions of approval as are necessary to minimize the environmental, health, or safety effects of the development or use” and may require financial security to insure completion of “additional work” specified in the conditions of approval. “Additional work” may include replanting.

The Conservation Element of the General Plan includes a section regarding landmark and heritage tree protection. The stated objective of the plan is that “heritage and landmark tree resources [are] preserved and protected for their historic, economic, and environmental functions.” The plan states that:

“Conservation of native tree species other than oaks and preservation of native oaks and landmark trees is the primary intent of the policies in the section. However, if preservation cannot be attained, then loss of the protected trees shall be compensated. Compensation for tree loss may be achieved by on-site or off-site replacement or payment into a Tree Preservation Fund.”

The section discusses thresholds of significance under CEQA for impacts to trees and concludes that tree impacts are “circumstantial”. The section states that projects that exceed the threshold of significance may have significant impacts even after mitigation, and conversely, tree loss of some species that exceeds the threshold in certain circumstances may not constitute a significant impact. The section states that final determination of significance will be made by the Environmental Coordinator. The section does not include a definition of “tree” based on DBH.

Policy CO-139 of the General Plan states that “Native trees other than oaks, which cannot be protected through development, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.” Tree replacement values are stipulated as follows:

one D-pot seedling = 1 inch DBH

one 15-gallon tree = 1 inch DBH

one 24-inch box tree = 2 inches DBH

one 36-inch box tree = 3 inches DBH

The Sacramento County General Plan contains policies aimed at preserving tree canopy in the County. The Conservation Element of the General Plan includes a section on urban forest management. The stated objective of the plan is a “coordinated and funded Urban Tree Management Plan and program sufficient to achieve a doubling of the County’s tree canopy by 2050...”

Policy CO-145 of the General Plan states that “Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the 15-year shade cover values for tree species.”

Policy CO-146 of the General Plan states that “If new tree canopy cannot be created onsite to mitigate for the non-native tree canopy removed for new development, project proponents (including public agencies) shall contribute to the Greenprint funding in an amount proportional to the tree canopy of the specific project.”

Determination of Potential Impacts

The following thresholds of impact significance are based on California Environmental Quality Act (CEQA) guidelines. Based on the CEQA guidelines, the proposed project would have a significant impact on biological resources if it would result in any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or,
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Limitations that May Influence the Results

The biological reconnaissance survey was conducted outside of the nesting season; therefore, the presence/absence of nesting birds on the site could not be determined. The trees on the site provide potential nesting habitat and could be used by a variety of birds during the nesting season. The survey was also conducted outside of the blooming season for the majority of the regionally-occurring special-status plants and the site had been mowed for weed control, making most of the vegetation unidentifiable. However, no habitat for special-status plants is present on the site, so the timing of the survey and site mowing should have no bearing on the analysis of potential impacts to special-status plants.

RESULTS: ENVIRONMENTAL SETTING

Existing Conditions

The project site is located in a suburban area of southern Sacramento County. The adjacent parcels were formerly single-family residential lots that have been converted to commercial uses. The surrounding land is now developed with a variety of residential, commercial, industrial, and open space/recreational uses and the project site is bordered on three sides by developed parcels, with Calvine Road to the south. Currently, the site is vacant with no structures or apparent land use. The southern portion of the parcel next to Calvine Road has remnant paved areas and below ground infrastructure from a former residence that was demolished in 2015. The northern portion of the project site was occupied by several unhoused persons and feral cats at the time of the survey and the site was regularly being crossed by

pedestrians to access adjacent establishments. The site also contains numerous trash and other debris, likely blown in from the surrounding development as well as illegal dumping.

Topography and Soils

The project site is nearly flat, lacking any notable depressions or other microtopography, with an elevation ranging from approximately 40 to 42 feet above mean sea level (amsl). The site generally slopes very gently from north to south with the lowest elevation occurring in the southern portion of the project site where the prior residence occurred.

One soil type is mapped on the project site: San Joaquin silt loam, leveled, 0 to 1 percent slopes (NRCS 2023). This soil type is discussed below.

San Joaquin silt loam, leveled, 0 to 1 percent slopes, occurs on terraces between 20 and 500 feet above sea level and consists of alluvium derived from granite. This soil map unit is comprised of 85% San Joaquin and similar soils and 15% minor components. A typical profile of this soil type is silt loam from 0 to 23 inches, clay loam from 23 to 28 inches, indurated from 28 to 54 inches, and stratified sandy loam to loam from 54 to 60 inches. This soil type is moderately well drained with a frequency of flooding of “none” and ponding of “none” and a depth to water table of more than 80 inches. San Joaquin soils do not have a hydric rating; however, one of the minor components (Galt soils) has a hydric rating when occurring in depressions (NRCS 2023).

Habitat Types in the Project Area

The project site is mapped as Low-Density Development, Valley Grassland, and Major Roads according to the SSHCP. Based on our observations, we suggest a minor modification to the SSHCP land cover mapping to confine the Low-Density Development to the pad of the former residence and expand the Valley Grassland further south in the area where a barn/shed was removed. Figure 3 in Attachment A is a SSHCP Baseline Land Cover Map and Figure 4 in Attachment A is our suggested map of the habitat types/land cover types present based on our findings. Representative photos of the site are included in Attachment D. The SSHCP land covers in the project site based on the conditions at the time of our biological survey are quantified and described below.

Valley Grassland

The northern portion of the site is classified as Valley Grassland (1.6 acre) (Figure 4). This area was likely pasture formerly and has been regularly mowed and/or disced for fire protection for decades but does not appear to ever have been developed. The Valley Grassland in the project site is vegetated with grasses and forbs, many of which are naturalized. Dominant species in the Valley Grassland observed during the survey include wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barley, and prickly lettuce (*Lactuca serriola*). A windbreak of blue gum (*Eucalyptus globulus*) is present around the perimeter of the site.

Low-Density Development

The southern portion of the site that formerly contained a residence is classified as Low-Density Development (0.83 acre) (Figure 4) because it is a levelled pad that still contains a driveway and other hardscape from the former residence. This area is vegetated with ruderal weedy species such as

stinkwort (*Dittrichia graveolens*), Dallis grass (*Paspalum dilatum*), yard knotweed (*Polygonum aviculare*), Bermuda grass (*Cynodon dactylon*), and barley (*Hordeum murinum*). Japanese zelkova (*Zelkova serrata*), bottlebrush (*Melaleuca* sp.), and white mulberry (*Morus alba*), remnant trees and shrubs from the former landscaping around the residence, are also present in the area mapped as Low-Density Development.

Major Roads

A small segment of Calvine Road extends onto the parcel and is classified as Major Roads (0.02 acre) land cover according to the SSHCP land cover types.

General Wildlife Use of the Site

The project site lacks any significant habitat value for wildlife due to the small size of the site, its location within a developed area, and the existing level of disturbance (described in *Existing Conditions*). Other than feral dogs and cats and mammalian scavengers associated with urban areas, such as skunks and racoons, the only wildlife expected to use the site to any notable degree would be birds that forage in the site and use the trees in the site for nesting.

RESULTS: SPECIAL-STATUS SPECIES AND OTHER PROTECTED BIOLOGICAL RESOURCES

Special-Status Species

Based on the results of the background review and database searches, there are a total of 21 special-status plant species, 48 special-status animal species, and four sensitive natural communities as defined in this report that are either documented as occurring or having the potential to occur or be impacted by projects within the "Elk Grove, CA" 7.5 minute USGS topographic quad and the eight surrounding quads (referred to as regionally-occurring special-status species and habitats). All of these regionally-occurring special-status species and habitats, as well as the 28 SSHCP Covered Species, were evaluated for the potential to occur within the project site and/or be impacted by the project. The evaluation was based on factors such as habitat requirements, known elevational and geographic ranges, and soil requirements. This evaluation is documented in Attachment E. Species that were determined to have no potential to occur in the project site and/or be impacted by the project are not discussed further in this document.

Special-Status Plants

No special-status plant species or suitable habitats for special-status plants were observed in the project site during the biological reconnaissance survey, and none have been reported in or adjacent to the site in the CNDDDB (CDFW 2023). We did not find any modeled habitat for SSHCP Covered Plant Species in the site based on our review of the SSCHP modeled habitat maps. Based on the evaluation of the potential for SSHCP Covered Plant Species or other regionally-occurring special-status plant species to occur in the project site that is described above and documented in Attachment E, no special-status plant species are considered to have the potential to occur in the project site or be impacted by the proposed project. Regionally-occurring special-status plant species generally occur in wetlands or other aquatic habitats or within woodland or grassland habitats, generally on specialized soils. The project site is highly disturbed

and lacks any habitat or specialized soils to support special-status plants. In summary, no potential project impacts to special-status plant species or their habitats were identified.

Special-Status Animals

No special-status animal species were observed in the project site during the biological reconnaissance survey, and none have been reported in or adjacent to the site in the CNDDDB (CDFW 2023). Based on the evaluation of the potential for special-status animal species to occur in the project site that is described above and documented in Attachment E, no special-status animal species were identified as having the potential to occur in the project site and/or be impacted by project activities. The majority of the regionally-occurring special-status animal species require aquatic habitats such as vernal pools, seasonal wetlands, ponds, marshes, and riverine habitats that do not occur on the site or they occur on large tracts of undeveloped lands such as open grasslands or woodland/forest habitats, which are not present. In summary, no potential project impacts to special-status animal species were identified.

The Valley Grassland land cover in and around the project site is mapped in the SSHCP as modeled habitat for several SSHCP Covered Animal Species including vernal pool tadpole shrimp, western spadefoot, western pond turtle, ferruginous hawk, loggerhead shrike, northern harrier, Swainson's hawk (foraging), tri-colored black bird, white tailed kite, American badger, and western red bat. It is likely that the grassland in and around the project site supported some of these species for at least a portion of their life cycle (e.g., foraging and/or nesting habitat) prior to nearly all of this habitat being developed in the project site and immediate vicinity. However, it is our professional opinion that none of these species have the potential to occur in the site or utilize the site to any significant degree based on the current conditions.

Raptors, Migratory Birds, and Other Nesting Birds

Eucalyptus trees and other trees in and adjacent to the project site provide nesting habitat for common raptors, migratory birds and other nesting birds. Common raptor species such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*) could nest in Eucalyptus trees in the site. Common bird species could also nest in trees, shrubs, or herbaceous vegetation in and adjacent to the site such as mourning dove (*Zenaidura macroura*), killdeer (*Charadrius vociferous*), or a variety of other songbirds. Project activities conducted during the typical bird nesting season (February 1 to August 31) in the vicinity of active bird nests could lead to destruction of nests, abandonment of eggs or young or forced fledging, which would be a violation of Fish and Game Code.

Sensitive Natural Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, and/or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDDB. CNDDDB vegetation alliances are ranked 1 through 5, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Some alliances with the rank of 4 and 5 have also been included in the 2020 sensitive natural communities list under CDFW's revised ranking methodology (CDFW 2023). There are no sensitive natural communities in or adjacent to the project site.

Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are connections between patches of habitat, generally native vegetation, which join two or more larger areas of similar wildlife habitat and allows for physical and genetic exchange between animal populations that could otherwise be isolated. Habitat linkages are typically contiguous strips of natural areas such as riparian corridors, oak woodlands, or drainages. Wildlife movement corridors are critical for the maintenance of ecological processes including facilitating the movement of animals and the continuation of viable populations. Movement corridors may serve to provide a more local linkage such as between foraging and denning areas, or they may be regional in nature providing larger scale migration corridors such as between wintering and summering habitat. Habitat linkages may also serve to allow animals to periodically move away from an area and then subsequently return. Other corridors may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The project site is a small patch of highly disturbed habitat and is surrounded on the north, east and west sides by developed parcels and to the south by a busy roadway (Calvine Road). As a result, it is not considered a wildlife movement corridor.

Jurisdictional Waters

Based on a review of SSHCP land cover mapping, and National Wetland Inventory mapping (USFWS 2023), no potential wetlands or other “Waters of the U.S.” or “Waters of the State” have been documented on the site and none were observed during our desktop review of historic aerial imagery or the biological reconnaissance survey. The project site is comprised entirely of upland habitats.

Protected Trees

Two native oak trees protected by Sacramento County are present on the project site. The remaining trees are non-native species consisting primarily of blue gum (*Eucalyptus globulus*) that were presumably planted as a wind break/visual screen around the former residential property. At the time of document preparation, the site plan is undergoing revisions, and it is unknown if these protected native oaks will be impacted by the proposed project. An evaluation of impacts to protected native oaks will be included in the arborist report.

RECOMMENDED BIOLOGICAL MITIGATION MEASURES

Special-Status Species (SSHCP Covered Species)

No special-status species or habitat for special-status species was identified on the site and no wetlands or other sensitive habitats were observed. As a result, no potential impacts to special-status species or other sensitive biological resources were identified as a result of the proposed project. Modeled habitat (Valley Grassland) is present on the project site for several SSHCP Covered Animal Species (see *Special-Status Animals*). Based on our observations from the biological reconnaissance survey, coupled with the small size of the habitat and the disturbed nature of the site and surrounding parcels, it is our professional opinion that there is no reasonable likelihood that any of the SSHCP Covered Species would occupy the site or use the site to any significant degree (e.g., with the exception of potential occasional

foraging by covered raptor species) at the present time. Therefore, the species-specific avoidance and minimization measures (AMMs) from the SSHCP that typically apply to projects with Valley Grassland habitat and modeled habitat for grassland-associated species are not believed to be necessary for the proposed project.

General Avoidance and Minimization Measures

The AMMs included below from the SSHCP are deemed applicable for the proposed project:

LID-1 (Stormwater Quality): When the size of a Covered Activity project exceeds the thresholds established by the State Water Resources Control Board (SWRCB) (see the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions, or future SWRCB-approved design manuals applicable to the Plan Area), incorporate stormwater management into site design to satisfy the requirements outlined in the most recent Stormwater Quality Design Manual for the Sacramento and South Placer Regions.

BMP-2 (Erosion Control): Plan Permittees and Third-Party Project Proponents implementing ground disturbing Covered Activities will install temporary control measures for sediment, stormwater, and pollutant runoff as required by the Plan Permittee to protect water quality and species habitat. Silt fencing or other appropriate sediment control device(s) will be installed downslope of any Covered Activity that disturbs soils. Fiber rolls and seed mixtures used for erosion control will be certified as free of viable noxious weed seed. Regular monitoring and maintenance of the project's erosion control measures will be conducted until project completion to ensure effective operation of erosion control measures.

BMP-3 (Equipment Storage and Fueling): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will ensure that equipment storage and staging will occur in the development footprint only (not sited in any existing on-site Preserve, planned on-site Preserve, Preserve Setback, Stream Setback, or aquatic land cover type). Fuel storage and equipment fueling will occur away from waterways, stream channels, stream banks, and other environmentally sensitive areas within the development footprint.

If a Covered Activity results in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill will be absorbed and waste disposed of in a manner to prevent pollutants from entering a waterway, Preserve, Preserve Setback, or Stream Setback.

BMP-5 (Dust Control): Plan Permittees and Third-Party Project Proponents implementing ground-disturbing Covered Activities will water active construction sites regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water will be used from aquatic land covers; water will be obtained from a municipal source or existing groundwater well.

Nesting Raptors and Migratory Birds

Although we did not identify any potential habitat for SSHCP covered raptor species on the site, we recommend the following measures for raptors and other nesting birds, if the project commences during the typical bird nesting season, in order to avoid a potentially significant impact under CEQA.

- Any vegetation clearing or ground disturbing activities within the project site should take place outside of the typical avian nesting season (e.g., February 15 through August 31), if feasible. If construction needs to commence between February 15 and August 31, a pre-construction survey for nesting birds should be conducted within 500 feet of active construction areas (offsite areas can be surveyed from the within the project site using binoculars) within 14 days prior to commencement of construction. If a lapse in Project activity occurs for 14 days or more during the bird nesting season, then the nesting bird surveys should be re-conducted. If no nesting birds are observed no further mitigation is required.
- If active bird nests are observed during the pre-construction survey, a buffer zone should be established around the nest tree(s) until the young have fledged or are no longer dependent on the nest, as determined by a qualified biologist. The radius of the required buffer zone can vary depending on the species, (i.e., 25-100 feet for passerines and 200-300 feet for common raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist. Buffer zones could be reduced if the nest is monitored by a qualified biologist.
- The buffer zone around a nesting tree should be demarcated with high visibility orange construction fencing (or similar highly visible material) and no construction activities or personnel should be allowed within the buffer zone.

Protected Trees

Two native oak trees protected by the Sacramento County Tree Preservation Ordinance are present on the site. Grading, trenching, or filling within the dripline, or removal, destruction, or killing of a native oak tree as defined in the ordinance is prohibited without a tree permit. Tree permits are issued by the Director of Public Works or by the body approving a discretionary action such as a conditional use permit. If any impacts to protected native oak trees is proposed, a permit will be required as well as potential mitigation as determined by the approving body. Mitigation may also be required under Policy CO-145 of the General Plan for removal of non-native tree canopy associated with removal of blue gum and other non-native trees on the site by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed.

SUMMARY/CONCLUSION

SBC prepared this Biological Resources Survey Report for the approximately 2.4-acre property located at 8881 Calvine Road in unincorporated Sacramento County, Ca. The property is the site of the 8881 Calvine Chevron project (Control No.: PAMP2023-00036) under review by Sacramento County Planning and Environmental Review. The project site formerly contained a single-family residence and outbuildings in the southern half that were removed circa 2015. Currently, the site is vacant and has no apparent formal site uses. The property is surrounded on all sides by developed land.

The site contains Valley Grassland, Low-Density Development, and Major Roads landcover as well as modeled habitat (Valley Grassland) for several SSHCP Covered Animal Species: vernal pool tadpole shrimp, western spadefoot, western pond turtle, ferruginous hawk, loggerhead shrike, northern harrier, Swainson's hawk (foraging), tri-colored black bird, white tailed kite, American badger, and western red bat. It is likely that the grassland in and around the project site supported some of these species for at least a portion of their life cycle (e.g., foraging and/or nesting habitat) prior to nearly all of the Valley Grassland habitat around the site being developed. However, it is our professional opinion that no SSHCP Covered Species or other special-status species have the potential to occur in the site or utilize the site to any significant degree (e.g., with the exception of potential occasional foraging by covered raptor species) based on the current conditions and the surrounding development. Therefore, no potential impacts to SSHCP Covered Species or any other special-status species were identified. None of the species-specific AMMs in the SSCHP were deemed applicable to the project.

General avoidance and minimization measures required by the SSHCP that were deemed applicable to the project include LID-1 (Stormwater Quality), BMP-2 (Erosion Control), BMP-3 (Equipment Storage and Fueling), and BMP-5 (Dust Control).

Although we did not identify any potential habitat for SSHCP covered raptor species on the site, we recommend pre-construction nesting surveys for common raptors and other nesting birds, if the project commences during the typical bird nesting season, due to the presence of potential nest trees on the site.

Two native oak trees protected by the Sacramento County Tree Preservation Ordinance are present on the site. If any impacts to protected native oak trees is proposed, a permit will be required as well as potential mitigation as determined by the approving body. Mitigation may also be required under Policy CO-145 of the General Plan for removal of non-native tree canopy by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed.

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Attachment A: Figures

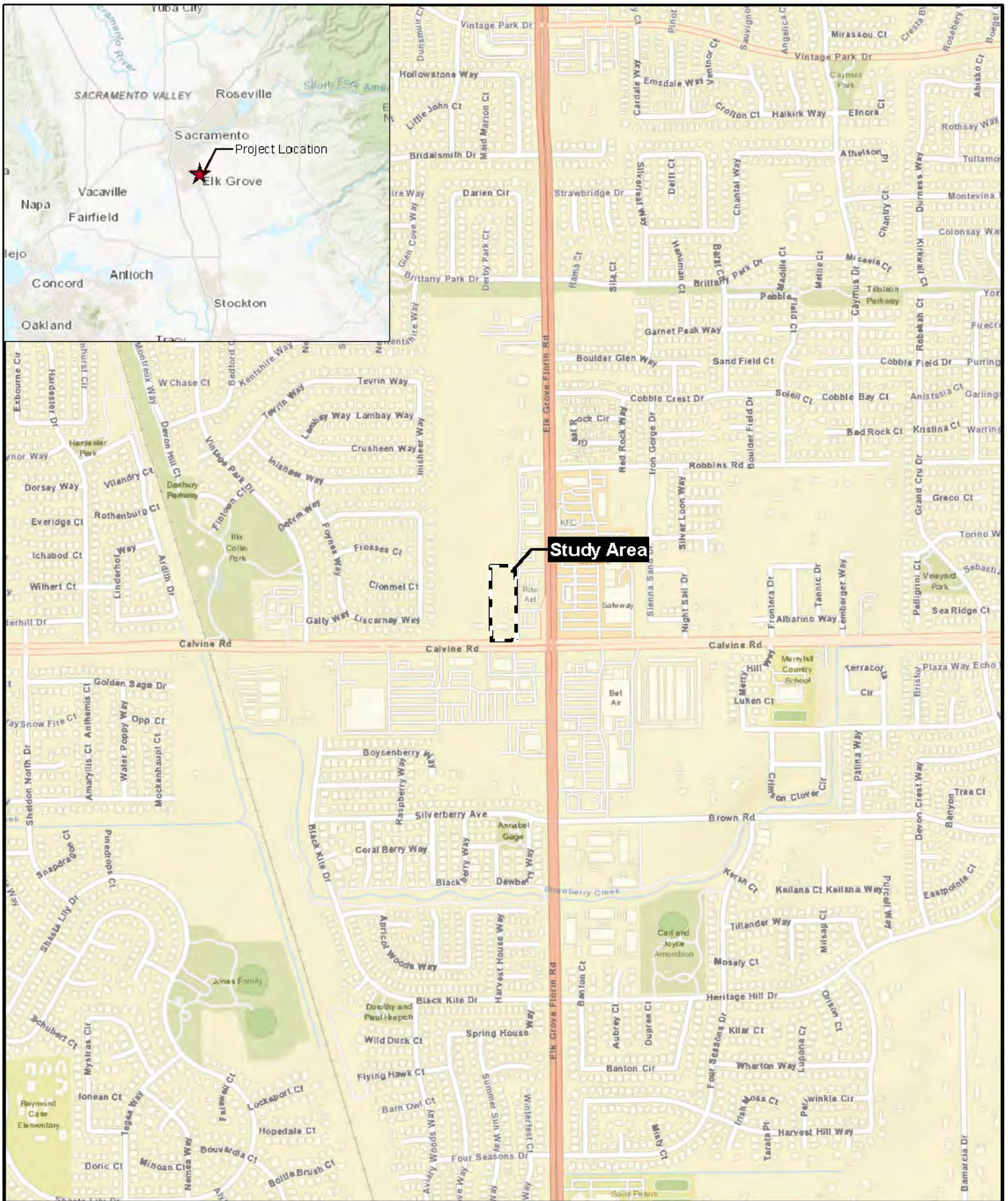
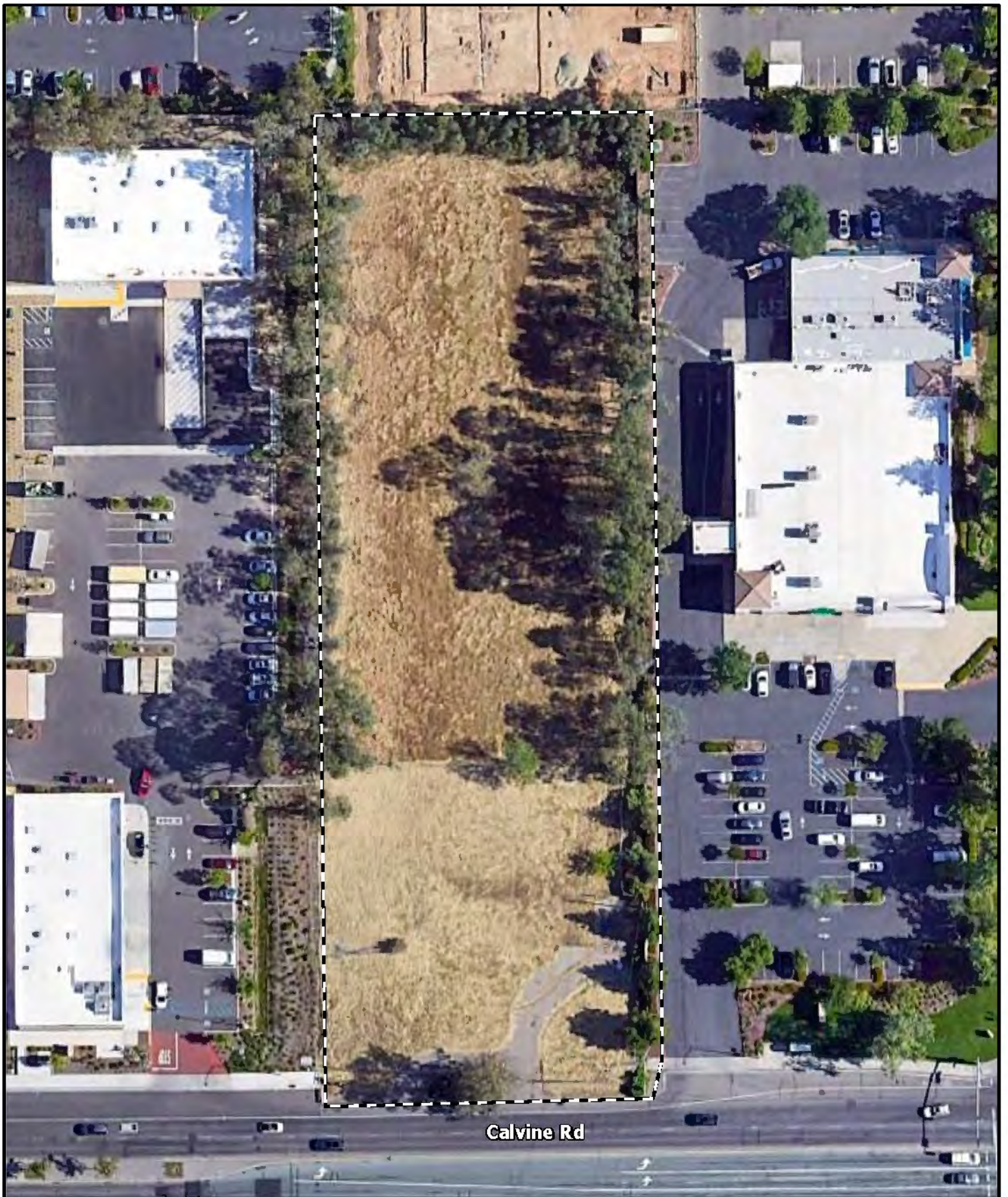


Figure 1
Regional Location and Vicinity

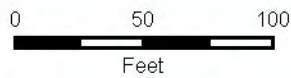
8881 Calvin Chevron
Sacramento County, CA

Stringer Biological
Consulting

Basemap Source: ESRI (2023)



Calvine Rd



Study Area (± 2.4 acres)

Figure 2
Aerial

Stringer Biological
Consulting

8881 Calvine Chevron
Sacramento County, CA

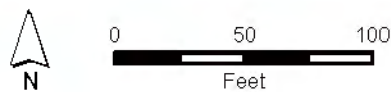


Figure 3
SSHCP Land Cover Map
 8881 Calvine Chevron
 Sacramento County, CA





Figure 4
Current Land Cover Map
 8881 Calvine Chevron
 Sacramento County, CA



Attachment B: Results of Database Queries



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Sacramento East (3812154) OR Carmichael (3812153) OR Buffalo Creek (3812152) OR Florin (3812144) OR Elk Grove (3812143) OR Sloughhouse (3812142) OR Bruceville (3812134) OR Galt (3812133) OR Clay (3812132))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ahart's dwarf rush <i>Juncus leiospermus var. ahartii</i>	PMJUN011L1	None	None	G2T1	S1	1B.2
alkali-sink goldfields <i>Lasthenia chrysantha</i>	PDAST5L030	None	None	G2	S2	1B.1
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
American bumble bee <i>Bombus pensylvanicus</i>	IIHYM24260	None	None	G3G4	S2	
bank swallow <i>Riparia riparia</i>	ABPAU08010	None	Threatened	G5	S3	
black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010	None	None	G5	S4	
Blennosperma vernal pool andrenid bee <i>Andrena blennospermatis</i>	IIHYM35030	None	None	G2	S1	
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	PDSCR0R060	None	Endangered	G2	S2	1B.2
Bolander's water-hemlock <i>Cicuta maculata var. bolanderi</i>	PDAP10M051	None	None	G5T4T5	S2?	2B.1
bristly sedge <i>Carex comosa</i>	PMCYP032Y0	None	None	G5	S2	2B.1
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S2	SSC
California black rail <i>Laterallus jamaicensis coturniculus</i>	ABNME03041	None	Threatened	G3T1	S2	FP
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
California tiger salamander - central California DPS <i>Ambystoma californiense pop. 1</i>	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Coastal and Valley Freshwater Marsh <i>Coastal and Valley Freshwater Marsh</i>	CTT52410CA	None	None	G3	S2.1	
Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040	None	None	G5	S4	WL
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	Candidate Endangered	G2	S2	
Delta mudwort <i>Limosella australis</i>	PDSCR10030	None	None	G4G5	S2	2B.1
Delta tule pea <i>Lathyrus jepsonii var. jepsonii</i>	PDFAB250D2	None	None	G5T2	S2	1B.2



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
double-crested cormorant <i>Nannopterum auritum</i>	ABNFD01020	None	None	G5	S4	WL
dwarf downingia <i>Downingia pusilla</i>	PDCAM060C0	None	None	GU	S2	2B.2
Elderberry Savanna <i>Elderberry Savanna</i>	CTT63440CA	None	None	G2	S2.1	
ferruginous hawk <i>Buteo regalis</i>	ABNKC19120	None	None	G4	S3S4	WL
giant gartersnake <i>Thamnophis gigas</i>	ARADB36150	Threatened	Threatened	G2	S2	
golden eagle <i>Aquila chrysaetos</i>	ABNKC22010	None	None	G5	S3	FP
great blue heron <i>Ardea herodias</i>	ABNGA04010	None	None	G5	S4	
great egret <i>Ardea alba</i>	ABNGA04040	None	None	G5	S4	
Great Valley Mixed Riparian Forest <i>Great Valley Mixed Riparian Forest</i>	CTT61420CA	None	None	G2	S2.2	
Great Valley Valley Oak Riparian Forest <i>Great Valley Valley Oak Riparian Forest</i>	CTT61430CA	None	None	G1	S1.1	
green sturgeon - southern DPS <i>Acipenser medirostris pop. 1</i>	AFCAA01031	Threatened	None	G2T1	S1	
hairy water flea <i>Dumontia oregonensis</i>	ICBRA23010	None	None	G1G3	S1	
Heckard's pepper-grass <i>Lepidium latipes var. heckardii</i>	PDBRA1M0K1	None	None	G4T1	S1	1B.2
legenere <i>Legenere limosa</i>	PDCAM0C010	None	None	G2	S2	1B.1
longfin smelt <i>Spirinchus thaleichthys</i>	AFCHB03010	Candidate	Threatened	G5	S1	
marsh skullcap <i>Scutellaria galericulata</i>	PDLAM1U0J0	None	None	G5	S2	2B.2
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	PDAP19030	None	Rare	G2	S2	1B.1
merlin <i>Falco columbarius</i>	ABNKD06030	None	None	G5	S3S4	WL
midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	ICBRA03150	None	None	G2	S2S3	
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
Peruvian dodder <i>Cuscuta obtusiflora var. glandulosa</i>	PDCUS01111	None	None	G5T4?	SH	2B.2



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
purple martin <i>Progne subis</i>	ABPAU01010	None	None	G5	S3	SSC
Ricksecker's water scavenger beetle <i>Hydrochara rickseckeri</i>	IICOL5V010	None	None	G2?	S2?	
Sacramento Orcutt grass <i>Orcuttia viscida</i>	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	AFCJB34020	None	None	G3	S3	SSC
saline clover <i>Trifolium hydrophilum</i>	PDFAB400R5	None	None	G2	S2	1B.2
Sanford's arrowhead <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
side-flowering skullcap <i>Scutellaria lateriflora</i>	PDLAM1U0Q0	None	None	G5	S2	2B.2
slender Orcutt grass <i>Orcuttia tenuis</i>	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
song sparrow ("Modesto" population) <i>Melospiza melodia pop. 1</i>	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus pop. 11</i>	AFCHA0209K	Threatened	None	G5T2Q	S2	
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S4	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S2	SSC
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T3	S3	
Valley Oak Woodland <i>Valley Oak Woodland</i>	CTT71130CA	None	None	G3	S2.1	
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp <i>Lepidurus packardii</i>	ICBRA10010	Endangered	None	G3	S3	
watershield <i>Brasenia schreberi</i>	PDCAB01010	None	None	G5	S3	2B.3
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western ridged mussel <i>Gonidea angulata</i>	IMBIV19010	None	None	G3	S2	
western spadefoot <i>Spea hammondi</i>	AAABF02020	None	None	G2G3	S3S4	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	



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










Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
white-tailed kite <i>Elanus leucurus</i>	ABNKC06010	None	None	G5	S3S4	FP
woolly rose-mallow <i>Hibiscus lasiocarpus var. occidentalis</i>	PDMAL0H0R3	None	None	G5T3	S3	1B.2
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	ABPBXB3010	None	None	G5	S3	SSC








Record Count: 64

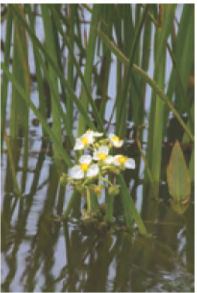

Search Results

17 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3812154:3812153:3812143:3812144]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK	PHOTO
<u><i>Brodiaea rosea ssp. vallicola</i></u>	valley brodiaea	Themidaceae	None	None	S3	4.2	 <p>© 2011 Steven Perry</p>
<u><i>Centromadia parryi ssp. rudis</i></u>	Parry's rough tarplant	Asteraceae	None	None	S3	4.2	 <p>© 2019 John Doyen</p>
<u><i>Cuscuta obtusiflora var. glandulosa</i></u>	Peruvian dodder	Convolvulaceae	None	None	SH	2B.2	No Photo Available
<u><i>Downingia pusilla</i></u>	dwarf downingia	Campanulaceae	None	None	S2	2B.2	 <p>© 2013 Aaron Arthur</p>
<u><i>Fritillaria agrestis</i></u>	stinkbells	Liliaceae	None	None	S3	4.2	 <p>© 2016 Aaron Schusteff</p>
<u><i>Gratiola heterosepala</i></u>	Boggs Lake hedge-hyssop	Plantaginaceae	None	CE	S2	1B.2	 <p>©2004 Carol W. Witham</p>
<u><i>Hesperervax caulescens</i></u>	hogwallow starfish	Asteraceae	None	None	S3	4.2	 <p>© 2017 John Doyen</p>
<u><i>Hibiscus lasiocarpus var. occidentalis</i></u>	woolly rose-mallow	Malvaceae	None	None	S3	1B.2	 <p>© 2020 Steven Perry</p>

<u><i>Juncus leiospermus</i> var. <i>ahartii</i></u>	Ahart's dwarf rush	Juncaceae	None	None	S1	1B.2		© 2004 Carol W. Witham
<u><i>Lasthenia chrysantha</i></u>	alkali-sink goldfields	Asteraceae	None	None	S2	1B.1		© 2009 California State University, Stanislaus
<u><i>Legenere limosa</i></u>	legenere	Campanulaceae	None	None	S2	1B.1		©2000 John Game
<u><i>Lepidium latipes</i> var. <i>heckardii</i></u>	Heckard's pepper-grass	Brassicaceae	None	None	S1	1B.2		2018 Jennifer Buck
<u><i>Navarretia eriocephala</i></u>	hoary navarretia	Polemoniaceae	None	None	S4?	4.3		© 2018 Leigh Johnson
<u><i>Orcuttia tenuis</i></u>	slender Orcutt grass	Poaceae	FT	CE	S2	1B.1		© 2013 Justy Leppert
<u><i>Orcuttia viscida</i></u>	Sacramento Orcutt grass	Poaceae	FE	CE	S1	1B.1		© Rick York and CNPS

<u><i>Sagittaria sanfordii</i></u>	Sanford's arrowhead	Alismataceae	None	None	S3	1B.2	
							©2013 Debra L. Cook
<u><i>Trifolium hydrophilum</i></u>	saline clover	Fabaceae	None	None	S2	1B.2	
							© 2005 Dean Wm Taylor

Showing 1 to 17 of 17 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 27 October 2023].

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Sacramento County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2505

Sacramento, CA 95825-1846

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** 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 Fisheries)

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:

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

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 <i>Desmocerus californicus dimorphus</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/7850	Threatened

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
Sacramento Orcutt Grass <i>Orcuttia viscida</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/5507	Endangered
Slender Orcutt Grass <i>Orcuttia tenuis</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/1063	Threatened

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

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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 IPAs <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

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 and understand the FAQ "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.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ☀)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort(!)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

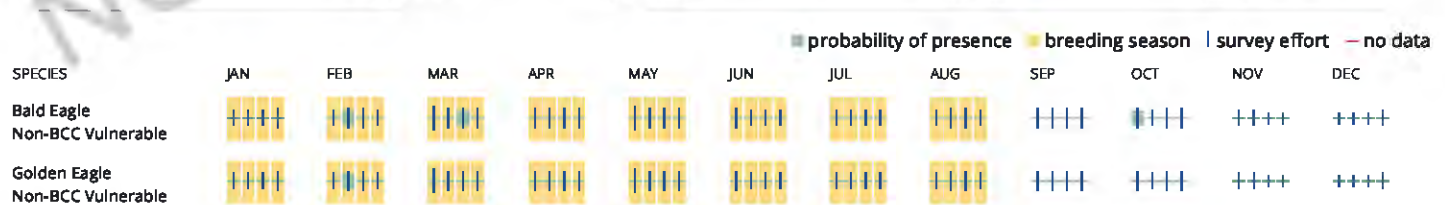
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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 Act and the Bald and Golden Eagle Protection Act.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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 IPAs <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 [SFWS 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, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</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/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
Common Yellowthroat <i>Geothlypis trichas sinuosa</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/2084	Breeds May 20 to Jul 31

Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 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
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 <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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 and understand the FAQ "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.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

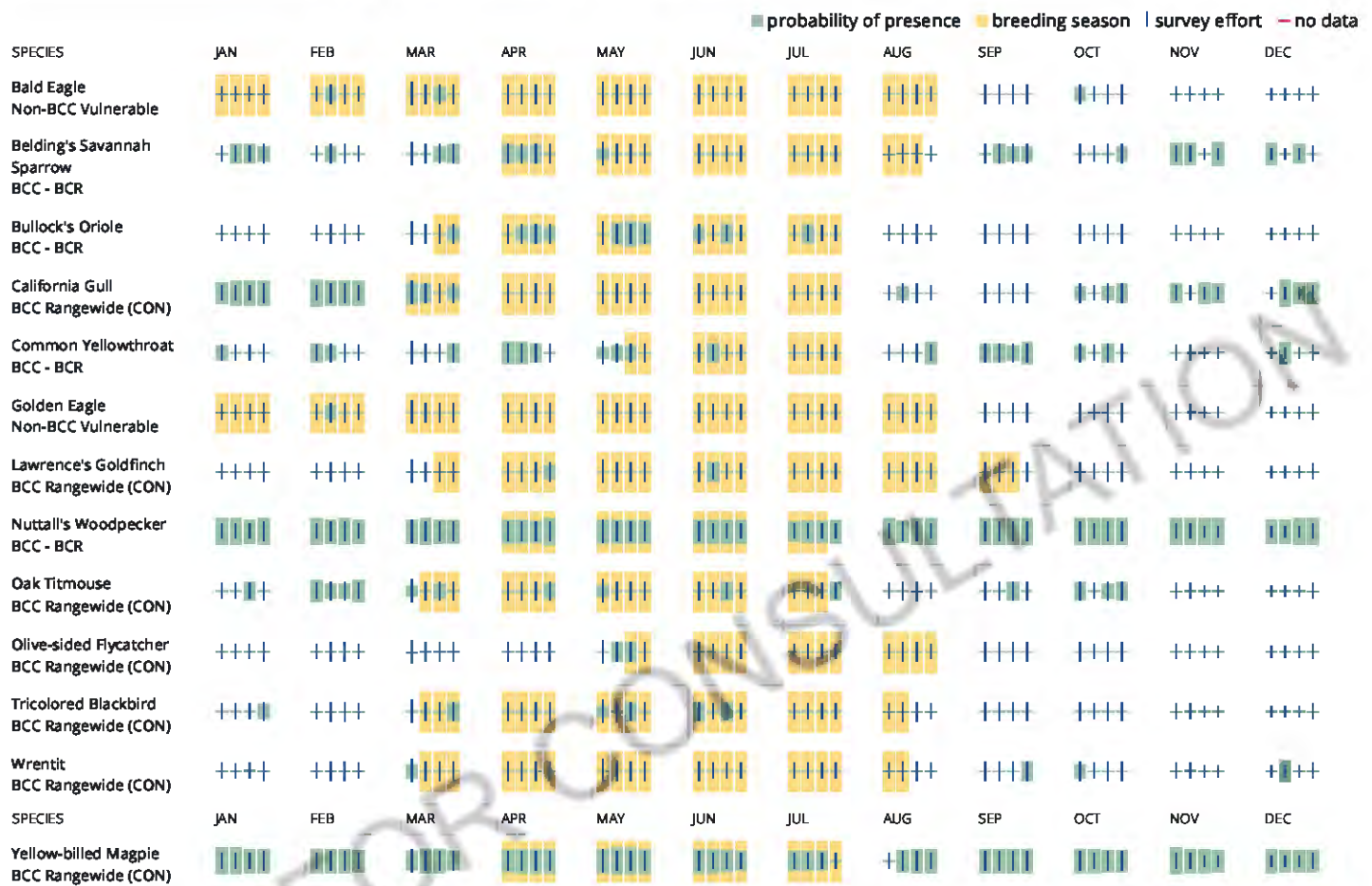
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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 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 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.

Attachment C: Species Observed in the Project Site

Attachment C Plant and Animal Species Observed in the Project Site

Table C-1. Plant Species Observed in the Project Site

Family	Scientific Name	Common Name
Native		
Fagaceae	<i>Quercus wislizeni</i>	Interior live oak
Non-native		
Apocynaceae	<i>Nerium oleander</i>	Common oleander
Asteraceae	<i>Dittrichia graveolens</i>	Stinkwort
	<i>Lactuca serriola</i>	Prickly lettuce
	<i>Taraxacum officinale</i>	Common dandelion
Convolvulaceae	<i>Convolvulus arvensis</i>	Field bindweed
Geraniaceae	<i>Erodium botrys</i>	
Moraceae	<i>Morus alba</i>	White mulberry
Myrtaceae	<i>Eucalyptus globulus</i>	Blue gum
	<i>Melaleuca</i> sp.	Bottlebrush
Poaceae	<i>Avena fatua</i>	Wild oat
	<i>Bromus diandrus</i>	Ripgut brome
	<i>Bromus hordeaceus</i>	Soft chess
	<i>Cynodon dactylon</i>	Bermuda grass
	<i>Hordeum murinum</i>	Foxtail barley
	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley
Polygonaceae	<i>Paspalum dilatatum</i>	Dallis grass
	<i>Polygonum aviculare</i>	Knotweed
	<i>Rumex crispus</i>	Curly dock
Ulmaceae	<i>Zelkova serrata</i>	Japanese zelkova

Table C-2. Wildlife Species Observed in the Project Site

Family	Scientific Name	Common Name
Birds		
Cathartidae	<i>Cathartes aura</i>	Turkey vulture

Attachment D: Representative Site Photos

Attachment D. Representative Site Photos



Photo 1. View of the project site looking north from the southern portion of the site, showing the Valley Grassland land cover and the band of Eucalyptus trees around the perimeter.



Photo 2. View of the area mapped as Low-Density Development in the southern portion of the project site, looking west toward the neighboring development.

Attachment D. Representative Site Photos



Photo 3. View of the area mapped as Low-Density Development in the southern portion of the project site, looking southeast toward the neighboring development and Calvine Road.



Photo 4. View of the area mapped as Valley Grassland in the northern portion of the site.

Attachment E: Potential for Regionally-Occurring Special-Status Species and Sensitive Natural Communities to Occur in the Project Site

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
PLANTS				
<i>Brasenia schreberi</i> Watershield	--/--/2B.3	A rhizomatous aquatic herb found in freshwater marshes and swamps from 30 to 2,200 meters elevation. Blooms June to September (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	--/--/2B.1	A perennial herb found in coastal freshwater and brackish marshes from 0 – 200 meters elevation. Blooms July – September.	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian dodder	--/--/2B.2	An annual parasitic vine found in freshwater marshes and swamps from 15 – 280 meters elevation. Known from 5 locations; last seen in 1948 in Merced County. Plants from Sacramento County need verification. Blooms July – October (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Carex comosa</i> Bristly sedge	--/--/2B.1	A perennial rhizomatous herb found in mesic areas in coastal prairie, lake margins, and valley and foothill grassland from 0 – 625 meters elevation. Blooms May – September (CNPS 2023).	Will not occur/ Presumed absent	The project site lacks suitable habitat to support this species and no species of <i>Carex</i> were observed during the biological survey.
<i>Downingia pusilla</i> Dwarf downingia	--/--/2B.2, SSHCP	An annual herb found in mesic areas within valley and foothill grassland and vernal pools from an elevation of 5 to 1,460 feet. Blooms March to May (CNPS 2023).	Will not occur	There are no suitable mesic habitats or vernal pools on the project site to support this species.
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	--/SE/1B.2, SSHCP	An annual herb found on clay soils in marshes and swamps at lake margins, and in vernal pools from 10 – 2,375 meters elevation. Blooms April – August (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	--/--/1B.2	A perennial rhizomatous emergent herb found in freshwater marshes and swamps from 0 – 120 meters elevation, often in riprap along levees. Blooms June – September (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--/--/1B.2, SSHCP	Annual herb found in vernal pools in the eastern Sacramento Valley from 30 – 229 meters. Blooms March – May (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	--/--/1B.2	A perennial herb found in brackish and freshwater marshes and swamps from 0 to 15 feet in elevation. Blooms May to July (August – September) (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Lasthenia chrysantha</i> Alkali-sink goldfields	--/--/1B.1	An annual herb found in alkaline vernal pools from 0 to 200 meters elevation. Blooms February – April (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Legenere limosa</i> Legenere	--/--/1B.1, SSHCP	Annual herb found in vernal pools from 1 – 880 meters. Blooms April – June (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Lepidium latipes</i> var. <i>heckardii</i> Heckard's pepper-grass	--/--/1B.2	An annual herb found on alkaline flats in valley and foothill grasslands from 2 – 200 meters. Blooms March – May (CNPS 2023).	Will not occur	There are no suitable alkaline flat habitats on the site to support this species.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	--/SR/1B.1	A perennial rhizomatous herb found in marshes, swamps, and riparian scrub from 0 – 10 meters elevation. Range is restricted to the Delta, Suisun Bay, and San Pablo Bay. Blooms April – November (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Limosella australis</i> Delta mudwort	--/--/2B.1	A perennial stoloniferous herb found in brackish and freshwater marshes and swamps and riparian scrub, usually on muddy streambanks, from 0 to 3 meters in elevation.	Will not occur	There are no suitable aquatic habitats on the site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		Blooms May to August (CNPS 2023).		
<i>Navarretia myersii</i> ssp. <i>myersii</i> Pincushion navarretia	--/--/1B.1, SSHCP	An annual herb found in vernal pools from 20 – 330 meters elevation. Blooms April – May (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Orcuttia tenuis</i> Slender Orcutt grass	FT/SE/1B.1, SSHCP	An annual herb found in vernal pools from 35 – 1,760 meters elevation. Blooms May to October (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Orcuttia viscida</i> Sacramento Orcutt grass	FE/SE/1B.1, SSHCP	Annual herb found in vernal pools from 30 to 100 meters in elevation. Currently known to occur only in Sacramento County. Blooms from April – July (September) (CNPS 2023).	Will not occur	There are no vernal pools on the site to support this species.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/--/1B.2, SSHCP	A perennial rhizomatous herb found in marshes, swamps, and assorted shallow freshwater habitats from 0 – 650 meters elevation. Blooms May – October (November) (CNPS 2023).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Scutellaria galericulata</i> Marsh skullcap	--/--/2B.2	A perennial herb found in lower montane coniferous forest, mesic (wet) meadows and seeps, and marshes and swamps from 0 to 2,100 meters elevation. Blooms June to September (CNPS 2023).	Will not occur	There are no suitable aquatic habitats or mesic areas on the site to support this species.
<i>Scutellaria lateriflora</i> Side-flowering skullcap	--/--/2B.2	A perennial rhizomatous herb found in mesic meadows, seeps, marshes, and swamps from 0 – 500 meters elevation. Blooms July – September (CNPS 2023).	Will not occur	There are no suitable aquatic habitats or mesic areas on the site to support this species.
<i>Trifolium hydrophilum</i> Saline clover	--/--/1B.2	An annual herb found in marshes, swamps, mesic alkaline valley and foothill grassland, and vernal pools from 0 to 300 meters elevation. Blooms April – June (CNPS 2023).	Will not occur	There are no suitable mesic sites or aquatic habitats on the site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
ANIMALS				
Invertebrates				
<i>Bombus crotchii</i> Crotch bumblebee	--/SCE/--/--	Crotch bumble bee occurs in grassland and scrub habitats (CDFW 2019). New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows. This species is a generalist forager and has been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; food plants include <i>Asclepias spp.</i> , <i>Antirrhinum spp.</i> , <i>Clarkia spp.</i> , <i>Eschscholzia spp.</i> , <i>Eriogonum spp.</i> , <i>Chaenactis spp.</i> , <i>Lupinus spp.</i> , <i>Medicago spp.</i> , <i>Phacelia spp.</i> , and <i>Salvia spp.</i> (Koch et al. 2012). The flight period for queens in California is from February to October. New queens hibernate over the winter and initiate a new colony the following spring. This species is rare throughout its range and in decline in the Central Valley and southern California (CDFW 2019).	Will not occur	The project site does not provide suitable habitat for this species.
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE/--/--	Occupies large clay bottomed vernal pools to vernal lakes with turbid water in grasslands. The historical distribution of this species is unknown, and it is currently distributed throughout the Central Valley and southern coastal regions of California (USFWS 2005).	Will not occur	There are no vernal pools or vernal lakes on the project site.
<i>Branchinecta lynchi</i> Vernal pool fairy	FT/--/SSHCP	Vernal pool fairy shrimp is found in vernal pools, seasonal wetlands, and other aquatic	Will not occur	There are no suitable aquatic habitats on the project site to

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shrimp		habitats such as still or slow-moving ditches and artificial lakes and ponds. Vernal pools where this species is found range from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Typical aquatic habitats where this species is found measure less than 0.05 acre, although this species has been collected from vernal pools and other water bodies exceeding 25 acres (USFWS 2005).		support this species.
<i>Branchinecta mesovallensis</i> Midvalley fairy shrimp	--/--/SSHCP	Small (7–20 millimeters) freshwater crustacean endemic to shallow ephemeral pools (pools that seasonally fill and dry up) near the middle of California's Central Valley.	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
<i>Danaus plexippus</i> Monarch Butterfly	FC/--/--	Monarch butterflies in eastern and western North America represent the ancestral origin for the species worldwide. They exhibit long-distance migration and overwinter as adults at forested locations in Mexico and California. These overwintering sites provide protection from the elements (for example, rain, wind, hail, and excessive radiation) and moderate temperatures, as well as nectar and clean water sources located nearby. Adult monarch butterflies feed on nectar from a wide variety of flowers. Reproduction is dependent on the presence of milkweed, the sole food source for larvae (USFWS 2020).	Not expected	The project site is not suitable overwintering habitat for Monarch butterfly as it lacks suitable trees and milkweed as well as clean water sources nearby. This species could fly through the project site during migration but would not be expected to remain in the site for any significant period of time.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT/--/SSHCP	This species is endemic to elderberry shrubs (<i>Sambucus</i> spp.) and primarily occupies elderberry shrubs occurring in or within close proximity to riparian habitat. This species occurs throughout the Sacramento and San Joaquin Valleys from Redding to Fresno County typically below 152 meters in elevation (USFWS 2017a).	Will not occur	There are no elderberry shrubs on or near the project site.
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	--/--/SSHCP	Found in vernal pools typically below 300 meters in elevation.	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE/--/SSHCP	Vernal pool tadpole shrimp is found in vernal pools ranging from 54 square feet to 89 acres, containing clear- to highly-turbid water. This species is also found in other fishless water bodies such as ponds, ditches and seasonal wetlands that fill up in the winter/spring and dry up by late summer. Its known range is within the Central Valley of California and in the San Francisco Bay area (USFWS 2005).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
Fishes				
<i>Acipenser medirostris</i> Green sturgeon, southern DPS	FT/--/SSC	Spawn in freshwater streams, in fast, deep water, over gravel, cobble, or boulders. Juveniles inhabit estuarine waters for 1-4 years until dispersing into coastal marine waters as adults. Adults return to spawn in fresh water every 6-10 years. The Sacramento River watershed, including the	Will not occur	There are no suitable aquatic habitats on the project site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		Feather River, is the only known historical and present spawning areas for green sturgeon (NMFS 2018).		
<i>Hypomesus transpacificus</i> Delta smelt	FT/--/SSC	Delta smelt is found in the upper Sacramento-San Joaquin Estuary of California where it mainly inhabits the freshwater-saltwater mixing zone, except during its spawning season, when it migrates upstream to fresh water following winter "first flush" events (around March to May) (Moyle 2002).	Will not occur	The project site lacks aquatic habitat.
<i>Mylopharodon conocephalus</i> Hardhead	--/--/SSC	Hardhead are found in low to mid-elevation streams in undisturbed habitats. Prefers large streams with slow water, deep pools, well-oxygenated, clear water with sandy and boulder substrate. Prefers warmer waters and typically co-occurs with other native fish such as Sacramento pikeminnow or suckers and is typically absent when alien fish species predominate. Hardhead is seemingly incapable of passing manmade barriers even when fish ladders for anadromous fish are present. Hardhead are found in most large tributaries of the Sacramento River drainage (Moyle et al. 2015).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
<i>Oncorhynchus mykiss irideus pop. 11</i> Steelhead - Central Valley DPS	FT/--/--	Steelhead spawn in rivers and streams with cool, clear, water and suitable silt free substrate (NMFS 2016). This distinct population segment includes all naturally spawned anadromous steelhead populations	Will not occur	There is no suitable aquatic habitat for this species in the project site.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman NFH, and Feather River Hatchery steelhead hatchery programs (NMFS 2016).		
<i>Oncorhynchus tshawytscha</i> Central Valley chinook salmon spring-run ESU	FT/ST/--	Central Valley spring-run Chinook salmon spawn in rivers and streams with cool, clear, water and suitable cobble and gravel substrate. Historically occurred in all major rivers and tributaries of the Central Valley. Spawning is currently in tributary streams of the Sacramento River. Immigration of adults through the Delta and lower Sacramento River occurs from March through September. Spawning occurs between late-August through October (NMFS 2014).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
<i>Oncorhynchus tshawytscha</i> Sacramento River chinook salmon winter-run ESU	FE/SE/--	Chinook salmon spawn in rivers and streams with cool, clear, water and suitable cobble and gravel substrate. Immigration of adults through the Delta and lower Sacramento River occurs from December through July. Spawning is currently limited to the Sacramento River downstream of Keswick Dam and upstream of the Red Bluff Diversion and the lower reaches of Battle Creek (NMFS 2014). Spawning occurs between late-April	Will not occur	There are no suitable aquatic habitats on the project site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		through mid-August (NMFS 2014).		
<i>Oncorhynchus tshawytscha</i> Central Valley chinook salmon fall/late-fall-run ESU	--/--/SSC	Central Valley fall/late-fall-run Chinook salmon spawn in rivers and streams with cool, clear, water and suitable cobble and gravel substrate. This population is heavily supplemented by hatchery raised individuals. Historically occurred in all major rivers and tributaries of the Central Valley. Spawning is located in tributary streams of the Sacramento River and the San Joaquin River (Moyle et al 2015). Immigration of adults through the Delta and lower Sacramento River occurs from June – December (fall run) and October – April (late fall run) through September. Spawning occurs between late September – December (fall run) and early January – April (late fall run) (Moyle et al 2015).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
<i>Pogonichthys macrolepidodus</i> Sacramento Splittail	-/SSC/-	Endemic to the Central Valley. They occur below the Red Bluff Diversion Dam in Tehama County to the downstream reaches of the Sacramento and American Rivers. They also occur in the lower reaches of the Feather, Merced, Tuolumne River and the San Joaquin Rivers (Moyle et al 2015). This species is largely confined to the Delta, Suisun Bay, Suisun Marsh, Napa River, Petaluma River, and Sacramento-San Joaquin estuary. This species occurs predominantly in freshwater	Will not occur	There are no suitable aquatic habitats on the project site to support this species.

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		estuarine systems and prefers low-salinity, shallow-water habitats. Occurs in slow-moving sections of rivers, sloughs, and marshes. Species abundance is strongly tied to outflows because spawning occurs over flooded vegetation (Moyle et al 2015).		
<i>Spirinchus thaleichthys</i> Longfin smelt	FC/ST/SSC	The longfin smelt is a pelagic estuarine fish that spawns in freshwater and then moves downstream to brackish water to rear. They usually live for 2 years, spawn, and then die, although some individuals may spawn as 1- or 3-year-old fish before dying. Longfin smelt in the Bay-Delta may spawn as early as November and as late as June, although spawning typically occurs from January to April. The known range of the longfin smelt extends from the San Francisco Bay-Delta in California northward to the Cook Inlet in Alaska. Longfin smelt have been observed as far upstream as Isleton in the Sacramento River, Santa Clara shoal in the San Joaquin system, Hog Slough off the South-Fork Mokelumne River, and in Old River south of Indian Slough (USFWS 2016).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT/ ST/ SSHCP	California tiger salamanders are generally restricted to vernal pools and seasonal ponds, including many constructed stock ponds, in grassland and oak savannah plant	Will not occur	There is no suitable breeding or upland habitat in the project site.

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		communities from sea level to about 1,500 feet in central California. This species spends the majority of its life in upland areas in the vicinity of suitable breeding ponds, where it inhabits rodent burrows. Suitable breeding habitat must be present in combination with suitable upland habitat. In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County, and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties (USFWS 2017b).		
<i>Spea hammondi</i> western spadefoot	--/--/SSC, SSHCP	Western spadefoot breeds in vernal pools and seasonal ponds or slow portions of streams in grasslands and woodlands and the adults spend most of their time in underground burrows in grasslands surrounding the aquatic breeding habitat (Jennings and Hayes 1994).	Will not occur	There are no suitable aquatic habitats on the project site to support this species.
Reptiles				
<i>Emys marmorata</i> western pond turtle	--/--/SSC, SSHCP	Inhabits aquatic habitats such as slow-moving water with dense submerged vegetation, ponds, and fast-moving streams. Requires abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).	Will not occur	There are no suitable aquatic or upland habitats on or adjacent to the project site to support this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
<i>Phrynosoma blainvillii</i> Coast horned lizard	--/--/SSC	Occurs in the Coast Ranges, southwestern Sierra Nevada, Transverse and Peninsular Ranges, and the southern deserts. Requires sandy soils, chaparral vegetation, and native ant prey (Jennings and Hayes 1994).	Will not occur	There is no suitable habitat on the project site.
<i>Thamnophis gigas</i> Giant garter snake	FT/ST/ SSHCP	Endemic to the San Joaquin and Sacramento Valley floors. Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above flood elevations when dormant. Found in marshes and sloughs as well as slow-moving creeks but absent from large rivers (USFWS 2017c).	Will not occur	There is no suitable aquatic habitat on or adjacent to the site.
Birds				
<i>Accipiter cooperii</i> Cooper's hawk	--/--/WL, SSHCP	Cooper's hawks are found in mature forest, open woodlands, woodland edges, and in tree groves in urban areas with openings or edge habitat nearby (Audubon 2022).	Will not occur	There is no suitable habitat on the project site for this species and the site is surrounded by developed areas that lack any

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
				significant foraging habitat for this species.
<i>Agelaius tricolor</i> tricolored blackbird	--/ST/ SSHCP	Tricolored blackbird nests and seeks cover in emergent wetland vegetation and thorny vegetation such as Himalayan blackberry (<i>Rubus armeniacus</i>) as well as cattails (<i>Typha</i> spp.), willows (<i>Salix</i> spp.), and tules. The nesting habitat must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. Forages on ground in croplands, grassy fields, flooded land, and edges of ponds for insects (Shuford and Gardali 2008).	Will not occur	There is no suitable nesting or foraging habitat on the project site for this species.
<i>Ammodramus savannarum</i> Grasshopper sparrow	--/--/SSC	A summer resident of foothills and lowlands west of the Cascade-Sierra Nevada crest. Occurs in grasslands with scattered shrubs or other tall structures which it utilizes as singing perches. Nests on the ground in dense grass with overhanging taller grasses and forbs (Zeiner et al. 1990).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Aquila chrysaetos</i> Golden eagle	--/--/FP	Golden eagles typically occur in rolling foothills, mountain areas, deserts and other open habitats and nest on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as transmission towers. Golden eagles prey primarily on rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).	Will not occur	There is no suitable nesting or foraging habitat on the project site for this species.

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<i>Athene cunicularia</i> Burrowing owl	--/--/SSC, SSHCP	Burrowing owl nests and forages in grasslands, agricultural fields, and disturbed places where burrowing mammals are abundant. This species does not dig its own burrows, but nests in abandoned burrows dug by fossorial mammals, especially those of California ground squirrel (<i>Otospermophilus beecheyi</i> ; CDFW 2012). This species also nests in artificial structures such as small culverts and pipes.	Will not occur/ Presumed absent	The project site is too small and disturbed to support burrowing owl. Additionally, it is surrounded by developed habitat with no significant foraging opportunities for burrowing owl near the site. No mammal burrows or burrowing owls were observed during the biological survey.
<i>Buteo regalis</i> Ferruginous hawk	--/--/WL, SSHCP	Found in arid and semi-arid open grasslands, sagebrush flats, desert scrub, low foothills and areas of pinyon and juniper habitat. Ferruginous hawks' nest in trees, large shrubs, utility poles and occasionally on the ground near river cut banks. Preys upon ground squirrels, rabbits, mice, and gophers. (Dechant et al. 1999).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Buteo swainsoni</i> Swainson's hawk	--/ST/ SSHCP	Swainson's hawks forage in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat and nest in large trees in open areas in close proximity to foraging habitat (CDFW 1994).	Not expected	The project site is too small and disturbed to support nesting Swainson's hawks. Additionally, it is surrounded by developed habitat with no significant foraging opportunities for Swainson's hawk nearby. Swainson's hawks may occasionally fly over the site or forage in the site but would not be expected to nest in the site.

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<i>Circus cyaneus</i> Northern harrier	--/--/SSC, SSHCP	Inhabits a variety of treeless habitats including freshwater marsh, brackish- and saltwater marsh, wet meadows, lake margins, grasslands, croplands, desert sinks, and sagebrush flats. Builds nests on large mounds of vegetation between March and August. Forages in most open habitats (Shuford and Gardali 2008).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	FT/SE/--	Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California. Frequents valley foothill and desert riparian habitats. Inhabits open woodlands with clearings, and riparian habitats with dense understory foliage along slow-moving drainages, backwaters, or seeps. Prefers dense willows for roosting but will use adjacent orchard in the Sacramento Valley. Typically requires expansive riparian habitat for nesting (Zeiner et al. 1990).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Elanus leucurus</i> White-tailed kite	--/--/FP, SSHCP	Inhabits rolling foothills and valley margins with scattered oaks, as well as river bottomlands or marshes next to deciduous woodland. Nests in isolated, dense-topped trees in open areas. Forages in a variety of habitats including grassland, marshes, and agricultural fields (Zeiner et al. 1990).	Will not occur	There is no suitable nesting or foraging habitat on the project site for this species.
<i>Falco columbarius</i> Merlin	--/WL/--	An uncommon winter migrant in California; breeds in Alaska and Canada. Uses a variety	Will not occur	There is no suitable habitat on the project site for this species.

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Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		of habitats but requires trees close to water for cover and is usually found near coastlines, lakeshores, and wetlands (Zeiner <i>et al.</i> 1990).		
<i>Falco mexicanus</i> Prairie falcon	--/WL/--	An uncommon permanent resident of the deserts, Central Valley, inner Coast Ranges, and Sierra Nevada in California. Primarily found in grasslands, rangelands, desert scrub, and some agricultural areas. Requires sheltered cliffs and ledges for cover. Dives from a perch or from flight to take prey on the ground (Zeiner <i>et al.</i> 1990).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Grus canadensis tabida</i> Greater sandhill crane	--/ST/FP, SSHCP	Breed and forage in wetlands, grasslands and other open habitats. Typically roost in deeper water to avoid predators. Populations that breed in extreme northern California typically overwinter in the Central Valley (Zeiner <i>et al.</i> 1990).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Haliaeetus leucocephalus</i> Bald eagle	FD/SE/FP	Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. Bald eagles generally nest near coastlines, rivers, and large lakes where there is an adequate food supply. They nest in mature or old-growth trees, snags (dead trees), cliffs, and rock promontories. In treeless regions, they may also nest in cliffs or on the ground. Recently, and with increasing frequency, bald eagles are nesting on artificial structures such	Will not occur	There is no suitable nesting or foraging habitat on the project site for this species.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		as power poles and communication towers, and away from large water bodies. In forested areas, bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh 1,000 pounds or more. Nest sites typically include at least one perch with a clear view of the water, where they forage (USFWS 2019).		
<i>Lanius ludovicianus</i> Loggerhead shrike	--/--/SSC, SSHCP	Loggerhead shrike prefers open habitats with scattered shrubs, trees, posts, or other perches. It can be found in shrublands or open woodlands with bare ground, or sparse herbaceous cover. This species is often found in open cropland, but nests in dense shrubs and small trees (Zeiner et al. 1990).	Will not occur	The project site is too small and disturbed to provide suitable habitat for this species and there is no suitable habitat in the project vicinity.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/ST/FP	California black rail inhabits brackish marsh, primarily in the upper marsh zone dominated by alkali heath (<i>Frankenia salina</i>), cattail (<i>Typha</i> spp.), and rush (<i>Juncus</i> spp.); prefers lower salinity environments. This species forages on the ground, under cover of dense vegetation (USFWS 2013).	Will not occur	There are no suitable aquatic habitats on the site to support this species.
<i>Melospiza melodia</i> Song sparrow (Modesto Population)	--/--/SSC	Breeds in riparian thickets in shrubs or vines near fresh or saline emergent wetland. Nests are typically situated low to the ground or on the ground under dense riparian vegetation (Zeiner et al. 1990).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Nannopterum auritum</i> Double-crested	--/--/WL	A yearlong resident along the entire coast of California and on inland lakes, in fresh, salt	Will not occur	There is no suitable habitat on the project site for this species.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
cormorant		and estuarine waters. Rests in daytime and roosts overnight beside water on offshore rocks, islands, steep cliffs, dead branches of tall trees, wharfs, jetties, or transmission lines (Zeiner et al. 1990).		
<i>Pandion haliaetus</i> Osprey	--/--/WL	Ospreys forage in shallow, fish-filled water, including rivers, lakes, reservoirs, lagoons, swamps, and marshes. Nesting habitat must include an adequate supply of accessible fish within a maximum of about 12 miles of the nest; open, usually elevated nest sites free from predatory mammals such as raccoons, and a long enough ice-free season to allow the young to fledge (Cornell Lab 2022).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Progne subis</i> Purple martin	--/--/SSC	Nests in cavities in open areas with low canopy cover at the height of the nest, near large bodies of water that support high densities of large insects. Martins use a variety of cavities including in bridges, large tree snags, and collapsed lava tubes. The species is very sensitive to competition from European starlings and is extirpated from most low-elevation areas by starlings (Shuford and Gardali 2008).	Will not occur	There is no suitable habitat on the project site for this species.
<i>Riparia riparia</i> Bank swallow	--/ST/--	Found primarily in riparian and lowland habitat in California. Nests in colonies along cliffs or steep river banks in holes. In California, a majority of the population is situated along the Sacramento River and the	Will not occur	There is no suitable habitat on the project site for this species.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		Feather River. Other smaller populations persist near Monterey and north of Shasta counties (Zeiner et al. 1990).		
<i>Xanthocephalus xanthocephalus</i> Yellow-headed blackbird	--/--/SSC	Occurs in California mainly as a summer migrant, but small numbers over-winter in the southern San Joaquin Valley and deserts. Breeds in marshes with tall emergent vegetation, generally along edges over deep water. Usually forages on seeds and aquatic insects within individual territories but may use nearby agricultural fields if resources are scarce (Shuford and Gardali 2008).	Will not occur	There is no suitable marsh habitat on the project site for this species.
Mammals				
<i>Lasiurus blossevillii</i> Western red bat	--/--/SSC, SSHCP	Roosts primarily in woodlands and forests amongst branches and avoids roosting in caves or buildings (Bolster 1998). Forages in open habitat such as croplands, grasslands and shrublands. This species is typically associated with water and has a poor urine concentrating ability. Primarily roosts solitarily in trees from 2–40 feet high in the trees, with females and young roosting higher in the trees than males. Forages along edge habitats (Zeiner et al. 1990). This species is rarely found in the winter at locations that freeze (Pierson et al. 2006).	Will not occur	There is no suitable roosting or foraging habitat on the project site for this species.
<i>Myotis yumanensis</i> Yuma myotis	--/--/--	Occurs throughout California up to 11,000 feet, although it is rare above 8,000 feet. Habitats include open forests and woodlands	Will not occur	There is no roosting habitat on the project site for this species.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		with a water source nearby, which this species typically forages over. This species is typically found roosting in buildings, mines, caves or crevices. Roosting habitat also includes abandoned swallow nests, and under bridges (Zeiner et al. 1990). This species forages close to water since it has a poor urine concentrating ability. This species is often seen drinking on the wing.		
<i>Taxidea taxus</i> American badger	--/--SSC, SSHCP	Inhabits drier open stages of most shrub, forest, and herbaceous habitats with loose, friable soils. Preys on a wide variety of mammals, reptiles, birds, and carrion, and hunts mostly by digging out fossorial prey. Occasionally takes prey on the surface. Not tolerant of cultivation. No longer occur in the Central Valley except in the extreme western edge (Williams 1986).	Will not occur	The project site is too small and disturbed to provide suitable habitat for this species.
SENSITIVE NATURAL COMMUNITIES				
Coastal and Valley Freshwater Marsh	--/--S2.1	Marsh habitat dominated by species such as <i>Typha</i> , <i>Scirpus</i> , <i>Bolboschoenus</i> , <i>Sagittaria</i> , <i>Juncus</i> and others.	Absent	The site lacks marsh habitat.
Great Valley Mixed Riparian Forest	--/--S2.2	Riparian forest typically along major rivers and streams in the Sacramento-San Joaquin Valley dominated by tree species such as <i>Quercus lobata</i> , <i>Populus fremontii</i> , <i>Alnus rhombifolia</i> , and <i>Salix</i> spp.	Absent	The site lacks riparian habitat.
Great Valley valley oak riparian forest	--/--S1.1	<i>Quercus lobata</i> is dominant or co-dominant in the tree canopy with <i>Aesculus californica</i> ,	Absent	This habitat is not present on the project site.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		<p><i>Quercus agrifolia</i>, <i>Quercus douglasii</i>, <i>Quercus kelloggii</i>, <i>Quercus wislizenii</i> and/or <i>Umbellularia californica</i>. Shrubs are sparse. Understory herbs include <i>Bromus diandrus</i> and/or <i>Bromus hordeaceus</i>. Trees are generally less than 30 m tall; canopy is open (greater than 10%) to continuous, or savanna-like (less than 10%, but evenly distributed). Shrub layer is sparse to open. Herbaceous layer may be grassy. Found in valley bottoms; summit valleys; gentle to somewhat steep, lower to upper slopes and ridgetops. Soil textures are various, including loams and clays. Soils are alluvial or residual (CNPS 2023).</p>		
Northern hardpan vernal pool	--/--/S3.1	<p>Vernal pools are seasonal depressional wetlands that occur under the Mediterranean climate conditions of the West Coast and in glaciated areas of northeastern and midwestern states. They are covered by shallow water for variable periods from winter to spring but may be completely dry for most of the summer and fall. These wetlands range in size from small puddles to shallow lakes and are usually found in a gently sloping plain of grassland. Beneath vernal pools lies either bedrock or a hard clay layer in the soil that helps keep water in the pool (USEPA 2023). Northern</p>	Absent	There are no vernal pools in the project site.

Attachment E

Potential for Regionally-Occurring Special-Status Species and/or Sensitive Natural Communities to Occur in the Project Site

Scientific Name/ Common Name ¹	Status ²	Habitat Requirements	Potential to Occur	Rationale
		hardpan vernal pools occur on old to moderately old acidic terraces. These terraces are the outwash of soils eroded from the high mountains to the east. The terraces have an underlying iron-silica cemented hardpan in the subsoil that prevents water from draining out of the pool.		

¹ Sensitive species reported in CNDDB or CNPS on the "Elk Grove, Verona, Pleasant Grove, Roseville, Taylor Monument, Rio Linda, Carmichael, Sacramento East, and Sacramento West, CA" USGS 7.5 Minute topographic quads, in the USFWS list for the project site, or a SSHCP Covered Species.

² Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = Threatened; C = Candidate; FP=Fully Protected; SSC=Species of Special Concern; WL=Watch List.

³ Status in the Project site is assessed as follows. **Will Not Occur:** Species is either sessile (*i.e.* plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur on the project site; **Not Expected:** Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur on the project site, potential for an individual of the species to disperse through or forage in the site cannot be excluded with 100% certainty; for plants, species that are not currently known to occur in the project region but suitable habitat may be present; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the project site; however, focused surveys conducted for the current project were negative; **Absent:** natural community is not present on the site; **May Occur:** Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal, **High:** Habitat suitable for residence and breeding occurs on the project site and the species has been recorded recently on or near the project site, but was not observed during surveys for the current project; **Present:** The species was observed during biological surveys for the current project and is assumed to occupy the project site or utilize the project site during some portion of its life cycle.

CRPR = California Rare Plant Rank: 1A – Plants presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but common elsewhere. Extension codes: .1 – seriously threatened in California; .2 – moderately threatened in California; .3 – not very threatened in California.

State Rank: S1 = Critically Imperiled; S2 = Imperiled; S3 = Vulnerable; S4 = Apparently Secure; S5 = Secure.