Maverik, Inc. Fuel Station Project

Biological Resources Assessment

Prepared for:
City of Williams
810 E Street
Williams, CA 95987

Prepared by:
Greg Matuzak, Principal Biologist
Greg Matuzak Environmental Consulting LLC
P.O. Box 2016
Nevada City, CA 95959
Email: gmatuzak@gmail.com

June 2023

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1 INTRODUCTION

At the request of the City of Williams, Mr. Greg Matuzak was retained to prepare a Biological Resources Assessment Report (Biological Report) for the Maverik, Inc. Fuel Station Project (Project) located in Williams, Colusa County, California (see Appendix A). The Biological Report includes an evaluation of sensitive biological resources within the Project area, including sensitive biological resources under the jurisdiction of the California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), United States Army Corps of Engineers (Corps), and the City of Williams Planning Department. Preparation of the Biological Report included background research, field biological resources surveys, and reporting as detailed herein.

Mr. Greg Matuzak, Principal and owner of Greg Matuzak Environmental Consulting LLC is a wetlands ecologist and wildlife biologist with 20 years of experience conducting aquatic resources delineations and biological resources assessments in Northern California. Mr. Matuzak is 40-hour Wetland Delineation Certified (Wetland Training Institute) and has conducted aquatic resources delineations for 100's of linear miles of projects and 1000s of acres of site development projects. Additionally, Mr. Matuzak has conducted special-status biological resources surveys and developed biological resources assessments for dozens of projects in northern California, including projects in the City of Williams and Colusa County. Mr. Matuzak is responsible for the field data collection and assessment developed as part of this Biological Report.

1.1 Project Setting

The Biological Report includes a full coverage assessment of the Project area; see Appendix A for Project Area Overview Figures. The Project area is bordered by Husted Road along the eastern and southeastern boundary, Interstate Hwy 5 (I-5) along the western and southwestern boundary, and Ramos Oil Company, Inc. along the northern boundary. The Project area is approximately 5.87 acres in size. Access into the Project area will include access off of Husted Road in the northeastern and southeastern sections Project area (see attached Site Plan dated June 28, 2022). The preferred alternative for the Project includes a northern entrance off of Husted Road adjacent to the north of the existing Ramos Oil Company, Inc. location (considered Option A). A southeastern entrance into the Project area is also located off of Husted Road. The southern access to the proposed Project area is located to the southeast of the proposed Project development areas.

1.2 Project Understanding

The Project Site Plan Option A (see Appendix H) comprises of the development of the 5.87-acre parcel area with the creation of a 5,982 square foot store, underground fuel storage tanks and biodiesel mixing area, cat scale, trash enclosure, air station, 50 parking spaces provided with 2 being ADA parking, and 2 gas canopy locations. See the attached Project Site Plan, Option A with the northeastern entrance into the Project area being located directly to the north of the existing Ramos Oil Company, Inc. facilities. This northeastern Option A includes a single lane for entrance into the Project area off of Husted Road and it would include two lanes for exiting the Project area onto Husted Road. The Option A northeastern access road would cut to the west to the north of the existing Ramos Oil Company, Inc. facilities and then cut south to the west Ramos Oil Company, Inc. facilities of the Ramos Oil Company, Inc. facilities where the access meets up to the south where the proposed Project area will be developed. The southeastern access cuts directly north off of Husted into the southern section of the proposed Project area.

The area to the west of the existing Ramos Oil Company, Inc. facilities would be left open for the placement of a septic field as part of the new Maverik, Inc. store facilities. Additionally, the attached Option A Site Plan includes crossing an existing irrigation canal, which would be crossed using a bridge in order to avoid any fill or dredge material from being placed within the ordinary high water mark (OHWM) within the irrigation canal. However, if encroachment into the OHWM occurs as part of any design changes for the irrigation canal crossing, appropriate mitigation measures are included within this Biological Report to ensure the impacts to the irrigation canal would be less than significant with appropriate mitigation implemented.

1.3 Biological Resources Assessment Purpose

The purpose of the Biological Report is to identify the location and extent of sensitive biological resources within the Project area, including special-status plant and wildlife species. Additionally, this Biological Report includes an impact assessment to such sensitive biological resources based on the Project Understanding outlined in Section 1.2 above. Section 6 includes avoidance, minimization, and mitigation measures to ensure that the Project area disturbance, based on the Project Understanding, would not have a significant impact on such sensitive biological resources. This Biological Report also satisfies the City of Williams General Plan requirements for the development of such biological resource assessments.

2 REGULATORY OVERVIEW

2.1 Federal Regulations

2.1.1 Section 404 of the Clean Water Act

The U.S. Army Corps of Engineers ("Corps") and the Environmental Protection Agency ("EPA") regulate the discharge of dredge or fill material into "waters of the U.S." under Section 404 of the Clean Water Act. "Waters of the U.S." include wetlands and lakes, rivers, streams, and their tributaries. Wetlands are defined for regulatory purposes as areas "…inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions" as specified in 33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3.

Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as "other waters of the U.S." Jurisdictional limits of these features are typically noted by the Ordinary High Water Mark ("OHWM"). The OHWM is the line on the shore established by the fluctuations of water and indicated by physical characteristics such as mark a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328 and 33 CFR 329).

Isolated ponds or seasonal depressions had been previously regulated as waters of the U.S. However, in *Solid Waste Agency of Northwestern Cook County* (SWANCC) *v. USACE et al.* (January 8, 2001), the U.S. Supreme Court ruled that certain "isolated" wetlands (e.g., non- navigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under the jurisdiction of the Corps. Some circuit courts (e.g., *U.S. v. Deaton*, 2003; *U.S. Rapanos*, 2003; *Northern California River Watch v. City of Healdsburg*, 2006), though, have ruled that SWANCC does not prevent CWA jurisdiction if a "significant nexus" such as a hydrologic connection exists, whether it be man-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland and the navigable water), and changes to chemical concentrations in the navigable water is present due to water from the wetland.

Areas considered to be non-jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions with no outlet for drainage (33 CFR, Part 328).

The *Clean Water Rule* is a 2015 regulation published by the EPA and Corps to clarify water resources management in the United States under a provision of the CWA. The regulation defined the scope of federal water protection in a more consistent manner, particularly over streams and wetlands, which have a significant hydrological and ecological connection to traditional navigable waters, interstate waters, and territorial seas. It is also referred to as the *Waters of the United States* rule, which defines all bodies of water that fall under U.S. federal jurisdiction. The rule has been contested in litigation and in 2017 the Trump administration announced its intent to review and rescind or revise the rule. Following a Supreme Court ruling on January 22, 2018 that lifted a nationwide stay on the rule, the Trump administration formally suspended the rule until February 6, 2020, thereby giving the EPA time to issue a draft proposal of replacement water regulatory requirements.

On October 22, 2019, the EPA and the Corps published a final rule to repeal the 2015 Clean Water Rule: Definition of "Waters of the United States" ("2015 Rule"), which amended portions of the Code of Federal Regulations (CFR), and to restore the regulatory text that existed prior to the 2015 Rule. The final rule will become effective on December 23, 2019. The EPA and the Corps will implement the pre-2015 Rule regulations informed by applicable agency guidance documents and consistent with Supreme Court decisions and longstanding agency practice.

However, on April 21, 2020, the EPA and the Corps published the Navigable Waters Protection Rule to define "Waters of the United States" in the *Federal Register*. For the first time, the agencies have streamlined the definition so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. Congress, in the CWA, explicitly directed the Agencies to protect "navigable waters." The Navigable Waters Protection Rule regulates traditional navigable waters and the core tributary systems that provide perennial or intermittent flow into them.

Under the final rule, four clear categories of waters are federally regulated:

- The territorial seas and traditional navigable waters,
- Perennial and intermittent tributaries to those waters,
- Certain lakes, ponds, and impoundments, and
- Wetlands adjacent to jurisdictional waters

Therefore, as of June 22, 2020, the final rule details 12 categories of exclusions, features that are not "waters of the United States," such as features that only contain water in direct response to rainfall (e.g., ephemeral features); groundwater; many ditches; prior converted cropland; and waste treatment systems. The final rule clarifies key elements

related to the scope of federal CWA jurisdiction, including:

- Providing clarity and consistency by removing the proposed separate categories for jurisdictional ditches and impoundments.
- Refining the proposed definition of "typical year," which provides important regional and temporal flexibility and ensures jurisdiction is being accurately determined in times that are not too wet and not too dry.
- Defining "adjacent wetlands" as wetlands that are meaningfully connected to other jurisdictional waters, for example, by directly abutting or having regular surface water communication with jurisdictional waters.

The Navigable Waters Protection Rule is the second step in a two-step process to review and revise the definition of "waters of the United States" consistent with the February 2017 Presidential Executive Order entitled "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States.'" This final rule became effective on June 22, 2020 and will replaces the Step One Rule published in October, 2019 as outlined above. Based on 2023 litigation of updated rules, it appears that the Step One Rule is going to stay in place in California until further notice.

2.1.2 Section 401 of the Clean Water Act

Section 401 of the CWA requires an applicant, for any federal permit which may result in a discharge into waters of the U.S., to obtain a certification from the state that the discharge will comply with provisions of the CWA. The nine regions of the State Water Quality Control Board administer this program. Any condition of water quality certification would be incorporated into the Corps permit. California has a policy of no-net-loss of wetlands and typically requires mitigation for impacts to wetlands before it will issue a water quality certification. This Project is located under the jurisdiction of Region 5, the Central Valley Regional Water Quality Control Board ("RWQCB").

2.1.3 Endangered Species Act of 1973

For the proposed Project, consultation with the USFWS would be necessary if a proposed action may affect a federally listed species or occupied habitat. This consultation would proceed under Section 7 of the Endangered Species Act (ESA) if a federal action is part of the proposed action or through Section 10 of the ESA if no such nexus were available (USFWS, 1973).

2.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protects bald and golden eagles and their nests from direct "take" (i.e. harm or harassment as

described above). BAGEPA prohibits the take or commerce of any part of the bald or golden eagles (USFWS, 1940). The USFWS administers the Act and reviews actions that may affect species protected under the Act.

2.2 State Regulations

2.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) has jurisdiction over plant and wildlife species listed as threatened or endangered under section 2080 of the CDFW Code. The California Endangered Species Act (CESA) prohibits take of state-listed threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of *take*. The CDFW defines *take* as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFW may authorize *take* under the CESA through Section 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFW would issue an Agreement under Section 2081 of the CDFW Code and would establish a Memorandum of Understanding for the protection of state-listed species. CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened Species.

2.2.2 Streambed Alteration Agreements: CDFG Code Section 1600 et seq.

CDFW has jurisdictional authority over substantial alterations to the bed or bank of rivers, streams, and lakes under Sections 1600–1616. CDFW has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

2.2.3 Porter-Cologne Water Quality Control Act & Section 1601 and Section 1607 of CDFG Code

These acts and codes pertain to projects with potential impacts to water quality or waterways. The Project area does contain waters of the State as defined by the State Water Resources Board (State Board 2014), which includes the irrigation canals running north to south along Husted Road and east to west along the northern border of the Project area.

2.2.4 State Water Resources Control Board Wetland Policy (April 2019)

On April 2, 2019, the State Water Resources Control Board (State Water Board) adopted

rules to protect wetlands and other environmentally sensitive waterways throughout the state. More than 90 percent of California's historic wetlands have been lost to development and other human activity. Wetlands are a critical natural resource that protect and improve water quality, provide habitat for fish and wildlife, and buffer developed areas from flooding and sea-level rise. The newly adopted rules provide a common, statewide definition of what constitutes a wetland. They also provide consistency in the way the State Water Board and nine regional water boards regulate activities to protect wetlands and other waterways, such as rivers and streams, and bays and estuaries. The State of California waters of the state are, by definition, broader than "waters of the United States" covered by federal regulation. The newly adopted rules do not change that and will ensure that waters of the state will continue to be protected even if protections for federal waters are narrowed by administrative actions or the courts.

The new definition clarifies what is considered a wetland – and what is not – for the entire state, provides a common framework for monitoring and reporting the quality of California's remaining wetlands, helps ensure no overall net loss, and promote an increase, in the quantity, quality, and sustainability of waters of the state, including wetlands, improves transparency and consistency across the State Water Board and the nine Regional Water Quality Control Boards in how discharges of dredged or fill material in sensitive waterways are monitored and regulated, and avoids duplicative work and streamline requirements to cover all waters of the state, so both state and federal environmental concerns are addressed at once.

2.2.5 California Department of Fish and Game Code Sections 3503, 3503.5, and 3800: Nesting Migratory Bird and Raptors

Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance within active nesting territories be reduced or eliminated during critical phases of the nesting cycle (approximately March 1 – August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g. killing or abandonment of eggs or young), or the loss of habitat upon which birds are dependent, is considered "taking", and is potentially punishable by fines and/or imprisonment (LCC 2013).

2.2.6 California Special Species of Concern, Fully Protected, and Special Status Species

California designates Species of Special Concern (SSC) as species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational or educational values. These species do not have the same legal protection as listed species but may be added to official lists in the future (CDFW 2014).

In the 1960's California created a designation to provide additional protection to rare species. This designation remains today and is referred to as "Fully Protected" species, and those listed "may not be taken or possessed at any time" (CDFW 2014).

California special status species are identified by the California Natural Diversity Database (CNDDB) and includes those species considered to be of greatest conservation need by the CDFW.

2.2.7 California Environmental Quality Act Guidelines Section 15380

California Environmental Quality Act (CEQA) Guidelines section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. This section was included in the guidelines to deal primarily with situations in which a public agency is reviewing a project that may have a significant effect on, for example a "candidate species" that has not yet been listed by the USFWS or CDFW. CEQA, therefore, enables an agency to protect a species from significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CNRA 2012).

Plants appearing on the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) are considered to meet CEQA's Section 15380 criteria. Ranks include: 1A) plants presumed extirpated in California and either rare or extinct elsewhere, 1B) plant rare, threatened, or endangered in California and elsewhere, 2A) plants presumed extirpated in California, but more common elsewhere, and 2B) plants rare, threatened, or endangered in California, but more common elsewhere. Impacts to these species would therefore be considered "significant" requiring mitigation.

2.2.8 State Oak Woodland Regulations

State laws that regulate protection of oak woodlands include Professional Forester's Law (PFL) and CEQA according to Public Resources Code Section 21083.4. Oak woodlands are defined as areas having 10% oak canopy cover or greater. "Oaks" are defined in Public Resources Code Section 21083.4 as a native tree species in the genus *Quercus*, that is 5 inches diameter at breast height (DBH) or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California. Oak trees and oak woodland habitats are protected by the state per the definition above.

2.3 Local Regulations

2.3.1 City of Williams General Plan (WGP)

The City of Williams General Plan states the following policy about the use of wetlands and vegetation: Development in wetlands areas shall be conditioned on the developer receiving a 404 permit. Additional WGP policy regarding biological resources includes protection of sensitive habitats and species, including threatened and endangered species.

3 METHODOLOGY

In order to evaluate the Project area for the presence of any sensitive biological resources, baseline information from databases and reporting for similar projects in the City of Williams and Colusa County was collected and reviewed prior to conducting reconnaissance-level field biological surveys. The database searches, background research, and habitat level field surveys characterized the baseline conditions of the Project area.

Based on the baseline conditions of the Project area, an assessment was implemented to determine if any special-status plant or wildlife species use the Project area at any time during their life cycle.

3.1 Sensitive Biological Resources Background Review

The following information was used to identify potential sensitive biological resources, including the presence of special-status plant and wildlife species that could be found to use the Project area:

- California Department of Fish and Wildlife's California Natural Diversity Database records search of 3-mile buffer around the Project area (CDFW, 2023);
- The California Native Plant Society's online Inventory of Rare and Endangered Plants of California for the Project area and Colusa County (CNPS, 2023);
- The U.S. Fish and Wildlife Service Information, Planning, and Consultation System (IPaC) for endangered, threatened, and proposed listed species for the Project area (USFWS, 2022);
- National Wetland Inventory map of the Project area (NWI, 2023);
- United States Department of Agriculture (USDA) Soils Mapper of the Project area (USDA, 2023);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Colusa County (NRCS, 2023); and
- City of Williams General Plan (City of Williams, 2012).

3.2 Biological Resources Field Surveys

Biological resources field surveys were conducted on foot for the entirety of the Project area by Greg Matuzak, Principal Biologist and owner of Greg Matuzak Environmental Consulting LLC on April 28th, 2022. The purpose of the surveys was to identify habitat and vegetation types and to determine the potential for any special-status plant and wildlife species identified in the desktop analysis and background research to occur within the

Project area. Additionally, given the biological resources surveys were conducted during the blooming period for each of the special-status plant species with the potential to occur within the Project area, the surveys focused on the identification of special-status plant species to identify their presence/absence within the Project area. Late April biological resources surveys were timed to identify early blooming season (March-April) and late blooming season (April-June) special-status plant species.

The entirety of the Project area was surveyed on foot and a list of plant and wildlife species observed during the field surveys was compiled (see Appendix E for species lists). A Photo Log is included in Appendix G, which documents the Project area during the field surveys.

4 ENVIRONMENTAL SETTING

4.1 Environmental Setting

The Project is located in Colusa County in the Great Central Valley Bioregion (USDA US Forest Service, 1997). This region contains the alluvial plains of the Sacramento and San Joaquin Valleys. The northern portion, the broad flat Sacramento Valley Subregion, touches nine counties extending from Sacramento to Shasta, including Colusa County where the project is located. The project is located approximately 15 miles west of the Sacramento River in the Colusa drainage basin, adjacent to the east flowing Salt Creek.

The Colusa Basin subsection of the Sacramento Valley, where the project is located, is on the overflow plain of the Sacramento River. This basin lies between the levees of the Sacramento River and alluvial fans from the northern California Coast Ranges (USDA Forest Service, 1997). The area is underlain by a nearly level basin floor with alluvial fans along the western edge of the subsection, west of the project site. The soils are mostly moderately well to poorly drained (USDA Forest Service, 1997).

The Colusa Basin elevation range is from about 20 to about 120 feet above mean sea level. The project site is in the central portion of this region at approximately 65 feet above sea level. The climate is hot and sub-humid. The mean annual precipitation is about 14 to 18 inches; it is practically all rain. Mean annual temperature ranges from approximately 60° to 62° Fahrenheit (F). The mean freeze-free period is about 250 to 275 days (USDA Forest Service, 1997). The changing of the seasons is evident in the Sacramento Valley. Summer heat waves have temperatures over 100° F, occasionally for several consecutive days. Winter is characterized by cool air and winter fog between December and February.

Historically, the Sacramento River (before it was controlled by dams, artificial levees, and diversions) overflowed onto portions of the Colusa basin when it flooded. Today, the river is contained by levees and streams draining eastward from the northern California Coastal Ranges, which are diverted southward in overflow channels that run parallel to the Sacramento River. Most of the streams are generally dry during the summer. There are no lakes, but winter ponding occurs.

The Sacramento Valley is a prominent site for winter fowl, attracting more than 1.5 million ducks and 750,000 geese to the marshes along the Pacific Flyway (USDA Forest Service, 1997). Now predominantly agricultural, the biological communities of the Sacramento Valley once supported vast areas of grassland, marshes, riparian habitat, and woodlands. Specifically, the predominant natural plant communities in the Colusa Basin are needlegrass grasslands. Fremont cottonwood series occurs along streams. Emergent aquatic communities are common (USDA Forest Service, 1997).

Today, Colusa County still contains seasonal marshes, oak woodlands, riparian forests, vernal pools and grasslands. However, the project site is located in a principally agricultural setting. Colusa County itself ranks among the top 20 agricultural producers yielding primarily rice, tomatoes and olives among other prominent crops (CCGP, 1987).

4.2 Project Area Vegetation Communities

Vegetation community types within the Project area are described below.

Disturbed

Much of the areas along the edges of the Project area contain a mix of fill material, asphalt, and gravel that have created a mix of non-native ruderal grassland vegetation and areas of barren ground.

Non-Native Annual Grassland

Non-native annual grassland are open vegetation types that are dominated by annual plant species, often nonnative. These species can occur within the understory of other vegetation types like oak woodlands, but where non-native annual grasslands occur within the entirety of the Project area there is no overstory or shrub cover, which is the case within the Project area. This vegetation type is common throughout the Project area where there has been historic agricultural disturbance within the entirety of the Project area for many years.

The annual exposed grasslands within the Project area are surrounded by disturbed habitats that have undergone extensive grading. This extensive vegetative series is composed of many non-native and native annual species. The most common valley grasses are now annuals, whereas their native counterparts were often perennial grasses. In annual grasslands of Colusa County, *Avena barbata* and *A. fatua* are common oats. Bromes include ripgut brome (*Bromus diandrus*) and red brome (*Bromus rubens*) as well as soft chess (*Bromus hordeaceus*) and foxtail chess (*Bromus madritensis*). Common filarees include *Erodium botrys* and *E. cicutarium*. *Lasthenia californica* is the common goldfield and *Lupinus bicolor* the common lupine. *Lolium multiflorum* is the common ryegrass.

Many wildlife species forage and hunt in annual grasslands of Colusa County; however, grasslands are most productive (in terms of wildlife) when they are associated with woodlands, wetlands and/or riparian habitat, which tend to provide better cover and nesting habitat than exposed grassland (Department of Forestry, 1988). Colusa County's grassland communities support bird species such as the red-tailed hawk (*Buteo jamaicensis)*, American kestrel (*Falco sparverius)*, American crow (*Corvus brachyrhynchos)*, and yellow-billed magpie jay (*Pica nuttalli)*. Common mammals include mule deer (*Odocoileus hemionus)*, striped skunk (*Mephitis mephitis)*, California

ground squirrel (*Otospermophilus beecheyi)*, and Botta's pocket gopher (*Thomomys bottae)* (CCGP, 1987). However, many of these species are not likely found within the Project area given its relative isolation; it is a small area surrounded by development and disturbance and several roads, including Husted Road, I-5, and the Ramos Oil Company, Inc. facilities, beyond which are extensive tilled agricultural fields and development. Grasses such as wild oats (*Avena fatua*), soft chess brome, ripgut brome, and cheatgrass dominate annual grassland.

Potential Irrigation Canal Wetlands

Potential irrigation canal wetlands are characterized by hydrophyllic plants and generally artificial hydrology given the use of such an irrigation canal to send water to parcels specifically for agricultural use. There is a small, narrow band of potential irrigation canal wetlands, which are dominated by willows (*Salix* sp.), bulrush (*Schoenoplectus* sp.), and cattails (*Typha* sp.) within the existing irrigation canals that run north to south along Husted Road from the northern end to the southern end of the Project area as well as the irrigation canal running along the northern border of the Project area.

The National Wetland Inventory (NWI) and National Hydrography Database (NHD) identify irrigation canals along the northeastern section of the Project area and along the northern border of the Project area and it is mapped as riverine within the NWI. The mapped irrigation canal (see Appendix C attached) in the northern section of the Project area crosses under Husted Road from the east and enters the Project area through a large concrete box culvert (see Appendix E attached for a Photo Log) and continues along the northern border of the Project area and crosses Interstate 5 through culverts.

Given Site Plan Option A (see Appendix H attached) is selected as the preferred alternative and the option being evaluated within this Biological Report, the entrance into the northeastern section of the Project area off of Husted would cross the irrigation canal in that area and will either include a bridge crossing over the irrigation canal or the placement of a concrete box culvert within the irrigation ditch. As detailed within Section 6.0 below, the placement of a culvert within the irrigation ditch would constitute a potential impact to the wetlands within the irrigation canal at that location. Therefore, it is recommended to avoid the wetlands and construct the irrigation canal crossing with a bridge crossing that does not impact the ordinary high water mark or wetlands present within the irrigation canal at the crossing location.

The irrigation canal that runs north to south along the eastern border of the Project area is culverted underground at the entrance into the Ramos Oil Company, Inc. facilities and within the far southeastern section of the Project area along Husted Road where the irrigation canal is also culverted and underground as well. The irrigation canal that runs north to south along the western edge of Husted Road is not mapped within the NWI or NHD.

5 RESULTS

Special-status species were considered for the Project area based on a current review of the CNDDB and database information provided by the United States Fish and Wildlife Service and California Native Plant Society as well as the biological resources surveys.

For the purposes of this Biological Report, special-status species are defined as:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations [CFR] 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register [FR] for proposed species);
- Species that are candidates for possible future listing as threatened or endangered under ESA (67 FR 40657, June 13, 2002);
- Species that are listed or proposed for listing by California as threatened or endangered under the CESA (14 CCR 670.5);
- Plants listed as rare under the California Native Plant Protection Act of 1977 (California Fish and Game Code 1900 et seq.);
- Plants considered by CNPS to be "rare, threatened, or endangered in California and elsewhere" (CNPS List 1B species);
- Species that meet the definitions of "rare" or "endangered" under State CEQA *Guidelines* Section 15380;
- Animal species of special concern to CDFW; and
- Animals fully protected in California (California Fish and Wildlife Code Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

A list of special-status plant and animal species that have the potential to occur within the Project region was compiled based on data in the CNDDB (CDFW, 2023), CNPS database, and USFWS List of Federal Endangered and Threatened Species that may occur within the Project area. Appendix G illustrates the occurrences of special status species in the CNDDB, which includes a single special-status plant species and 5 special-status wildlife species previously identified within 3 miles of the Project area. However, a total of 14 plant and 21 wildlife special-status species were identified from these databases combined as potentially occurring in this portion of the Sacramento Valley (USFWS, CNPS, CDFW, 2023) and are in the attached species evaluation in Appendix F. The list served as a starting point in determining if there were known locations of sensitive species or whether suitable habitat might actually be found in the Project area.

The Project area does not contain any mapped CDFW sensitive communities (see Appendix G for a CDFW CNDDB map of the Project area and a 3-mile buffer). Therefore, CDFW sensitive communities are not discussed within this reporting effort further given the lack of mapping provided for such sensitive communities by CDFW within and adjacent to the Project area.

Based on project maps, aerial photography, and reconnaissance site visits many of the 35 species identified in databases for the region were eliminated from further consideration for one or more of the following reasons:

- Lack of suitable habitat in the Project area
- Outside of species range
- Avoidance of suitable habitat during the City's Project planning phase

The result of this evaluation indicates that a single special-status plant species and five special-status wildlife species have been previously identified within three miles of the Project area based on the most up to date review of the CNDDB (2022). There is no Designated Critical Habitat (DCH) mapped for any federally listed species within 3 miles of the Project area. Site specific surveys were conducted to determine the presence or absence of these species or their habitat in the Project area. Conclusions regarding habitat suitability and species occurrence are based on the biological resources surveys conducted and existing literature and databases described previously.

The species evaluation table in the attached Appendix F identifies the special-status plant and wildlife species that are known to occur or have a potential to occur within three miles of the Project area. For each of these species the "potential for occurrence" within the Project area was evaluated as follows:

- **Unlikely:** The Project area and/or immediate area do not support suitable habitat for a particular species. Project is outside the species known range.
- **Low Potential:** Project area and/or immediate area only provide limited habitat for a particular species. In addition, the known range for a particular species may be outside the immediate project area.
- **Medium Potential:** The Project area and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.
- **High Potential:** The Project area and/or immediate area provide ideal habitat conditions for a particular species and/or known populations occur in the immediate area and within the potential area of impact.

A description of the special-status plants and wildlife species identified as known to occur or having a potential to occur with the Project area is provided in Appendix F for Special-

Status Plant Species That Are Known to Occur or Have Potential in the Region around the Project Area.

6 CONCLUSIONS AND RECOMMENDATIONS:

These conclusions and recommendations are based on the findings of this Biological Report and the impact assessment based on the Project Understanding outlined in Section 1.3 above and the Site Plan attached in Appendix H (considered Option A). Therefore, the impact assessment and recommendations below are based on the proposed disturbance included in the Site Plan attached in Appendix H. For sensitive biological resources that have the potential to be impacted by such disturbance, avoidance, minimization, and mitigation measures are proposed to ensure that such disturbance does not cause a significant impact on any sensitive biological resources within the Project area.

Proposed Avoidance, Minimization, and Mitigation Measures

6.1 Potential Impacts to Special-Status Plant Species

Special-status plant surveys were conducted in late April 2022, which is within the blooming period for each of the special-status plant species with potential to occur within the Project area. For special-status plant species with their blooming season beginning in the month of May, suitable habitat for those special-status plant species does not occur within the Project area. Therefore, the special-status plant surveys conducted at the end of April 2022 were all encompassing of the special-status plant species that have a potential to occur within the Project area based on habitat requirements of those individual plant species.

No special-status plants were documented within the Project area during the site visit and survey conducted as part of the development of this Biological Report. Therefore, the Project area does not contain any special-status plant species listed by CNPS based on the results of the late April 2022 surveys of the Project area.

Therefore, no additional special-status plant surveys are required prior to the implementation of future ground disturbing activities within the Project area. The proposed Project would have no impact on any CNPS special-status plant species and therefore, no mitigation is required.

6.2 Potential Impacts to Special-Status Wildlife Species

Special-status wildlife surveys were conducted in late April 2022 and those surveys focused on direct observations of wildlife within the Project area and suitable habitat for such special-status species within the Project area. No special-status wildlife species were documented within the Project area during

the site visit and survey conducted as part of the development of this Biological Report. Additionally, the Project area does not provide suitable habitat for any of the special-status wildlife species that have the potential to occur regionally and within 3 miles of the Project area except for the giant garter snake, which associates with perennial wetlands located within the irrigation canals within the Project area. Given there is a lack of seasonal wetland and vernal pool habitat within the Project area, vernal pool listed species and California tiger salamander would not occur within the Project area. Additionally, the lack of aquatic habitat within the Project area would preclude the presence of California red-legged frog and special-status fish species.

Giant Garter Snake

The irrigation canal along the entrance into the northeastern section of the Project area and continues along the northern border of the Project area before crossing under Interstate 5 to the west of the Project area does provide marginal suitable habitat for the giant garter snake given the presence of cattails and other perennial wetland species. The irrigation canal and associated wetlands within the northeastern section of the Project area coincides with Site Plan Option A requiring a crossing of the irrigation canal for access into the Project area off of Husted Road. During the late April 2022 survey, the irrigation canals along Husted Road and along the northern border of the Project area were dry and the existing cattails and other wetland associated plant species were dried out (see attached Photo Log in Appendix E).

Therefore, it is the conclusion of this Biological Report that the irrigation canals within the Project area provide marginal suitable habitat for giant garter snake and given the lack of a perennial aquatic resource (no perennial standing water within the irrigation canals), the irrigation canals may act as migratory routes at times of the year when there is water within the irrigation canals.

Furthermore, the Project area does not contain suitable upland giant garter snake habitat given a lack of required small mammal burrows within 218 feet of giant garter snake aquatic habitat. The upland areas adjacent to the irrigation canals are heavily disturbed and the open fields adjacent to them within the Project area are compacted to the point where no burrows or openings within the surface layer of the fields was identified. This is most likely a relic of the historical agricultural practices within the Project area.

Occurrence: The Project area contains irrigation canals that contain marginal suitable habitat for the species, though given the lack of water within the canals during the April 2022 survey, the irrigation canals appear to lack reproductive habitat for the species and may only provide habitat for their movements through the Project area. The closest

known locations of the species are located 2 to 3 miles to the north of the Project area. In addition, the Project area does not provide upland habitat for the species given historical agricultural practices within the Project area and a lack of ground squirrel activity and burrows adjacent to the irrigation canals. The identification season for the species is during their active season which is generally from the middle of March through October.

Avoidance: Crossing of the northeastern irrigation canal with a bridge crossing that avoids impacts to the wetted channel and wetland associated plant species within the irrigation channel would be considered an appropriate avoidance measure for the species given, if it were to be present within the irrigation channel at the time of construction, it would be moving through the canal and would easily move out of the area of disturbance. However, if the irrigation canal crossing requires impacts to the wetted channel and associated wetland habitat within the canals such as with the placement of a culvert crossing within the canal, this would require the implementation of additional avoidance, minimization, or mitigation measures.

Mitigation: Construction or disturbance activities should be conducted during the active season for the species (mid-March through October) in order to avoid the very low possibility of a giant garter snake being located under rocks or within a small burrow during its dormancy period (November through mid-March). Therefore, it is recommended that a giant garter snake monitor conduct a pre-construction survey of the canal crossing area prior to the commencement of construction within and immediately adjacent to the canal and have a giant garter snake monitor be present during the construction of the bridge crossing. If a giant garter snake is detected within the Project area during the pre-construction survey or construction monitoring, the project would be required to stop and the U.S. Fish and Wildlife Service would be required to be contacted and additional avoidance and minimization measures, as outlined below, would be required to be implemented to avoid take of the species.

However, if the crossing must be culverted, then additional minimization and mitigation measures would be required through the Endangered Species Act consultation process, which would most likely be a Section 7 consultation between the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service. Additional avoidance, minimization, and mitigation measures that would be required through the Section 7 consultation process would include the following: placement of silt fencing along the edges of the areas of the active channel where disturbance would occur after the pre-construction survey to ensure that no giant garter snakes are located within the wetted channel during construction, daily pre-construction surveys of the disturbance areas prior to the beginning of construction each morning to ensure there are no snakes present, compensatory mitigation for impacts to giant garter snake habitat, as well as the

development of an environmental education program for the Project contractors prior to the onset of disturbance within and adjacent to the irrigation canals.

Tricolored Blackbird

The tricolored blackbird has been previously identified within three miles of the Project area, in 1936, 1932, and most recently in 1981 over 40 years ago. The species requires open water and vibrant cattails and bulrush vegetation for nesting. Given the irrigation canals along Husted Road adjacent to the Project area are very dry and do not contain such standing water or vibrant vegetation for nesting, the irrigation canal along Husted Road would not provide suitable habitat for this species. The irrigation canal cutting to the east along the northern border of the Project area also does not provide standing water or sufficient vibrant cattails and bulrush species in order to forage from and nest in. Therefore, this species would not be documented within the Project area and would not be directly or indirectly impacted by the proposed Project.

Therefore, the Project area does not contain any special-status wildlife species listed by CDFW or USFWS based on the results of the late April 2022 surveys of the Project area. The Project area does not provide suitable habitat for any of the special-status wildlife species previously identified within three miles of the Project area or previously identified regionally.

Protected Nesting Birds

Nesting raptors and other bird species have some potential to occur within the Project area as discussed in detail below. This includes Swainson's hawk as the species has been previously identified nesting to the north and south of the Project area. Given the Project area does not contain any larger trees within or adjacent to the proposed areas of disturbance except for a single, larger willow tree within the southeastern section of the Project area. However, trees contain suitable habitat for nesting raptors and other protected bird species and removal of such trees should be done outside the breeding season, if required, to avoid potential impacts to such nesting raptor and other protected bird species. Additionally, some protected bird species may also nest within the non-native annual grasslands within the Project area. The breeding season for raptors and MBTA protected bird species in the vicinity of the Project area is generally from March 1 to August 31. Vegetation clearing or tree removal outside of the breeding season for such bird species would not require the implementation of any avoidance, minimization, or mitigation measures. However, construction or development activities during the breeding season could disturb or remove occupied nests of raptors and would require the implementation of a pre-construction survey within 500 feet of the any disturbance area within the Project area for nesting raptors within 14 days prior to disturbance.

Occurrence: The Project area contains some small to medium sized trees adjacent to the proposed areas of disturbance within the Project area and many of those trees contain suitable habitat for nesting raptors and other protected bird species. In addition, the Project area also includes grasslands that provide suitable nesting habitat for other protected bird species. The breeding season for raptors and other protected bird species in the vicinity of the Project area is generally from March 1 to August 31 but varies depending on the species and localized weather patterns.

Avoidance: Vegetation clearing or tree removal outside of the breeding season for such bird species and/or avoidance of such potential nesting habitat would not require the implementation of any avoidance, minimization, or mitigation measures.

Mitigation: Construction or disturbance activities during the breeding season could disturb or remove occupied nests of raptors and/or protected bird species and would require the implementation of a pre-construction survey within and adjacent to any proposed disturbance area within the Project area for nesting raptors and other protected bird species within fourteen (14) days prior to disturbance. The nesting survey radius around the proposed disturbance would be identified prior to the implementation of the protected bird nesting surveys by a CDFW qualified biologist and would be based on the habitat type, habitat quality, and type of disturbance proposed within or adjacent to nesting habitat but would be a minimum of 500 feet from any area of disturbance.

If any nesting raptors or protected birds are identified during such pre-construction surveys, trees or shrubs or grasslands with active nests should not be removed or disturbed and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a CDFW qualified wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors should be analyzed by a qualified wildlife biologist to make an appropriate decision on buffer distances based on the species and level of disturbance proposed in the vicinity of an active nest.

6.3 Potential Impacts to Clean Water Act Regulated "Waters of the U.S.," Including Wetlands

Potential wetlands associated with the irrigation canal along Husted Road and along the northern border of the Project area are characterized by hydrophyllic plants and generally artificial hydrology given irrigation water is sent down the canals only when deliveries of water to agricultural projects are required. There is a small, narrow band of

potential wetlands within the irrigation canals, which are dominated by willows, bulrush, and cattails. These irrigation canals and associated wetlands are most likely jurisdictional "waters of the U.S.," and wetlands that would be regulated under the Clean Water Act.

Site Plan Option A includes a northeastern access into the Project area off of Husted Road that would require a crossing of the irrigation canal in that area. The applicant has proposed a bridge crossing over the narrow irrigation canal in order to avoid any dredge or fill material being placed within the OHWM of the irrigation canal at that location. Any dredge or fill material being placed below the OHWM of the irrigation canals could trigger Section 404 Clean Water Act permitting requirements as well as consultation with the USFWS under Section 7 of the Endangered Species Act for impacts to giant garter snake habitat, a federally listed species.

Therefore, given the applicant would avoid any dredge or fill material being placed within the OHWM of the irrigation canal with the Option A bridge crossing alternative (as opposed to a culvert crossing that would impact the irrigation canal below the OHWM and within it wetlands), no additional wetland related surveys would be required prior to the implementation of future ground disturbing activities within the Project area. The proposed Project would have no impact on any Clean Water Act regulated "waters of the U.S.," including wetlands, and therefore, no additional permitting or mitigation is required.

However, if the proposed irrigation canal crossing as designed within the Site Plan Option A included a culvert crossing, impacts within the OHWM of the irrigation canal and its associated wetlands could occur and thus would trigger potential Project related permit approvals under Section 404 of the Clean Water Act. Most likely given the crossing area would be less than a 0.5-acre impact to Clean Water Act regulated features, a proposed culvert crossing would most likely fit under an existing Nationwide Permit and would require a minimum of a 1:1 compensatory mitigation for loss of wetlands. With a federal Clean Water Act permit, an Endangered Species Act Section 7 consultation would also be required with the U.S. Fish and Wildlife Service.

6.4 Potential Impacts to Stream and Riparian Zones Under CDFW Jurisdiction

Substantial alteration to perennial, intermittent, and ephemeral streams within the Project area would likely fall under CDFW jurisdiction and any proposed alteration of any stream would most likely require a Streambed Alteration Agreement from the CDFW pursuant to Section 1600 *et. seq.* of the California Fish and Wildlife Code prior to construction. Given the irrigation canals would most likely fall under CDFW regulation and any impact to the

bed, bank, and riparian associated habitat associated with the irrigation canals streams would then require a Section 1600 *et. seq.* Streambed Alteration Agreement permit as part of the irrigation canal crossing, as outlined within Option A of the Site Plan. A bridge crossing of the irrigation canal would probably require some footings or part of the bridge structure to be developed within the bank of the irrigation canal or at a minimum impact some of the canal's riparian vegetation which would require permitting with CDFW.

Given Option A has been selected as the preferred alternative for access into the Project area as outlined within the attached Site Plan, the bed and bank and riparian vegetation would be impacted most likely and therefore, the placement of a bridge across the irrigation canal would require CDFW permitting and potential compensatory mitigation would be required under a Section 1600 *et. seq.* Streambed Alteration Agreement permit. Furthermore, if a culvert crossing at the northeastern access is selected during final design, a CDFW permit would also be required under a Section 1600 *et. seq.* Streambed Alteration Agreement permit.

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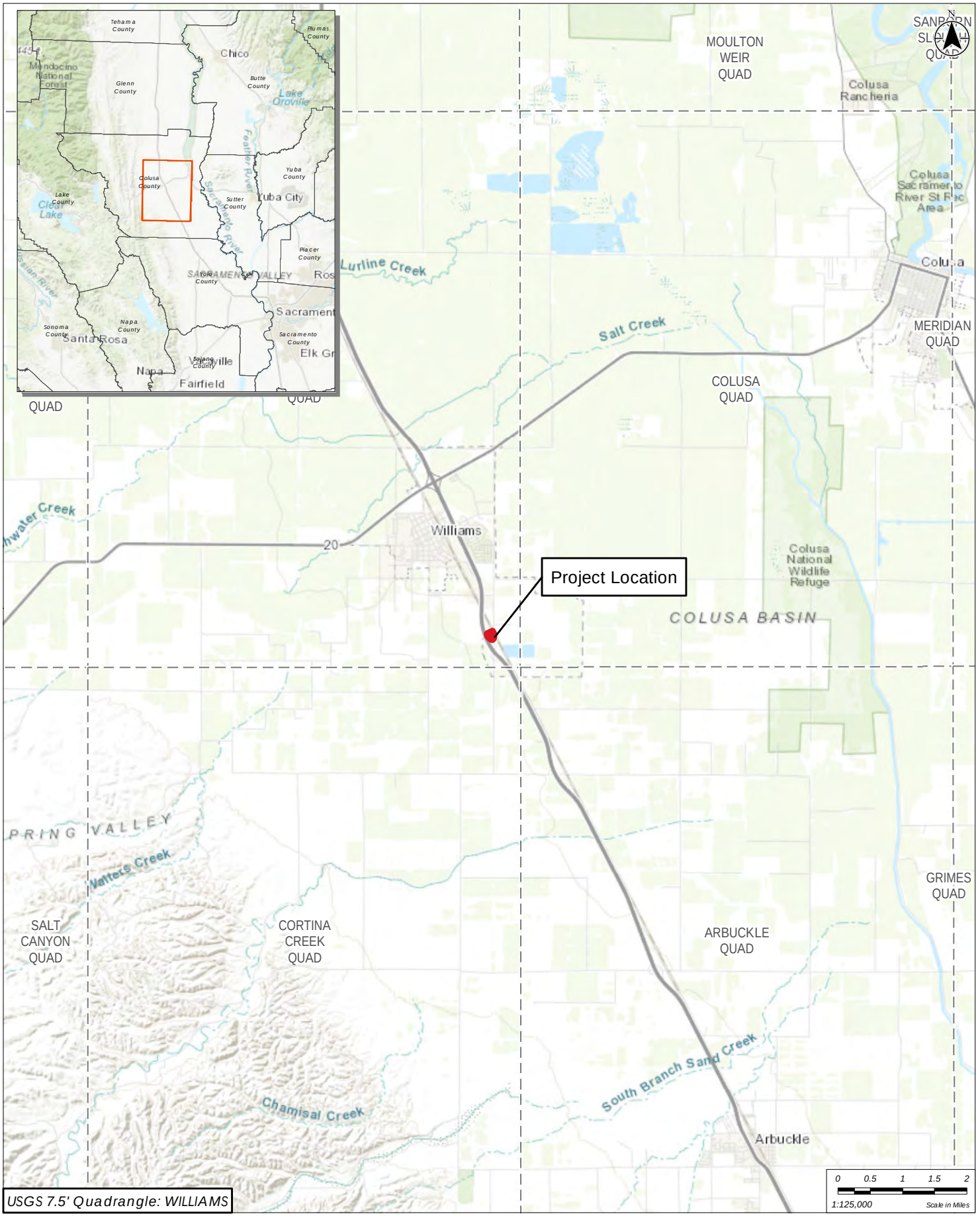
Appendix A

Project Overview Area Figures



USGS 7.5' Quadrangle: WILLIAMS

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

1802 Old Hwy 99W

Figure 1. Vicinity Map

Prepared: Melissa Nugent 4/7/2022 D:__GIS_Matuzak\20220415_ColusaCounty_1802 Old Hwy 99W\mxd\Fig1_Vicinity_ColusaCounty_1802 Old Hwy 99W.mxd

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

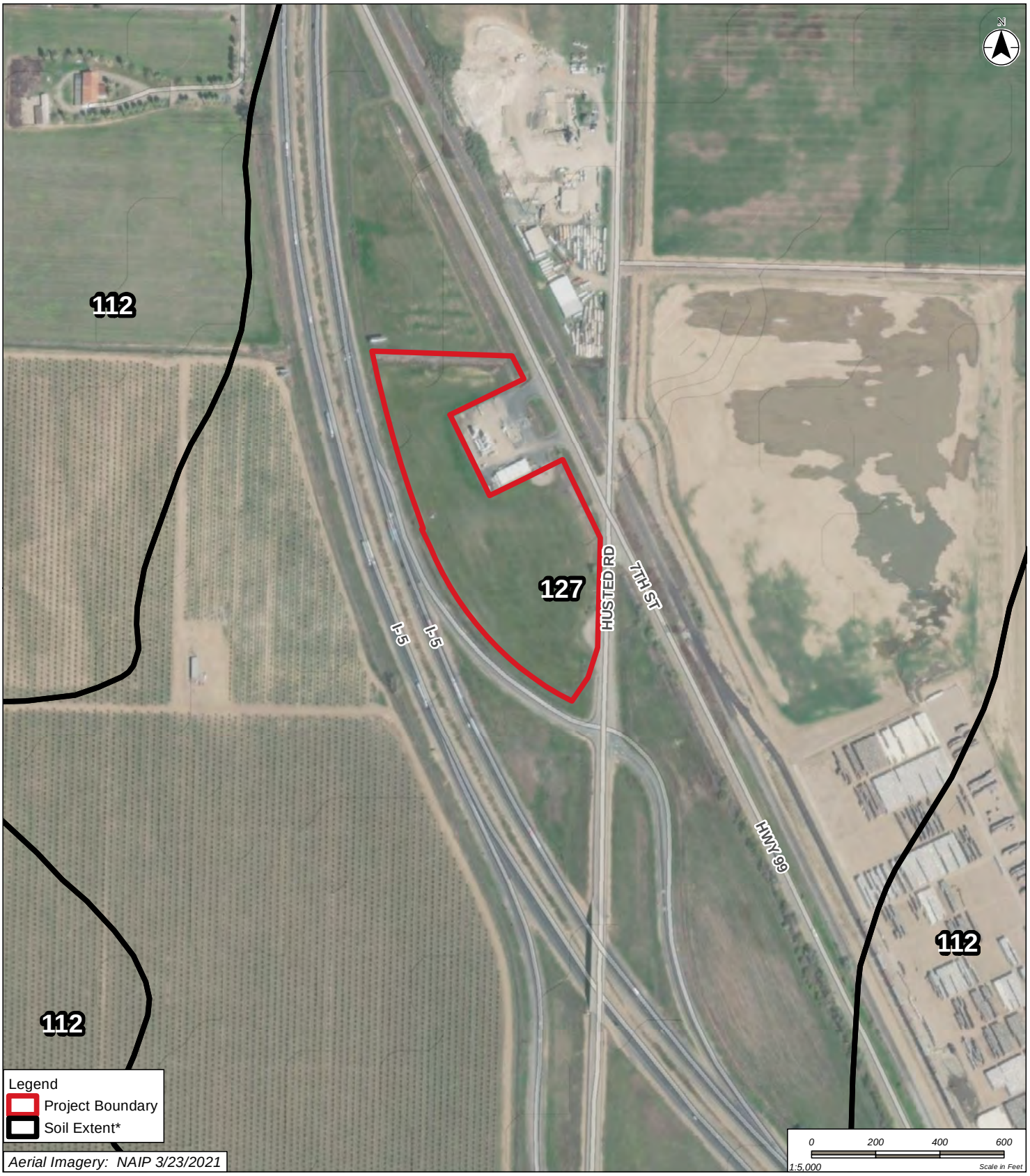
1802 Old Hwy 99W

Figure 2. Project Location Map

Prepared: Melissa Nugent 6/7/2023 D:__GIS_Matuzak\20220415_ColusaCounty_1802 Old Hwy 99W\mxd\Fig2_SiteMap_ColusaCounty_1802 Old Hwy 99W.mxd

Appendix B

USDA Soils Maps



SOIL TYPE*

112 - Westfan loam, 0 to 2 percent slopes

127 - Mallard clay loam, 0 to 1 percent slopes

* Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 11/11/2020

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

1802 Old Hwy 99W

Figure 4. Soils Map

Prepared: Melissa Nugent 6/7/2023 D:__GIS_Matuzak\20220415_ColusaCounty_1802 Old Hwy 99W\mxd\Fig4_SoilsMap_ColusaCounty_1802 Old Hwy 99W.mxd

Appendix C

National Wetland Inventory (NWI) Map

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

1802 Old Hwy 99W

* Data downloaded from https://www.fws.gov/wetlands/Data/Data-Download.html 3/6/2019
** National Hydrography Dataset (NHD) downloaded from http://nhd.usgs.gov March, 2019

Prepared: Melissa Nugent 6/7/2023 D:__GIS_Matuzak\20220415_ColusaCounty_1802 Old Hwy 99W\mxd\Fig5_NWI-NHD_ColusaCounty_1802 Old Hwy 99W.mxd

Figure 5. Wetlands and Water Features Map

Appendix D

Plants Observed During Site Surveys

Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Avena sp.	Wild oats	non-native (invasive)	annual grass	-	FACU	Limited
Brodiaea minor	Low brodiaea	native	perennial herb	-	-	-
Bromus hordeaceus	Soft chess	non-native (invasive)	annual grass	-	FACU	Limited
Bromus madritensis	Foxtail chess, foxtail brome	non-native	annual grass	-	FACU	-
Bromus tectorum	Downy chess	non-native (invasive)	annual grass	-	-	High
Centaurea solstitialis	Yellow starthistle	non-native (invasive)	annual herb	-	-	High
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	-	FACU	Moderate
Dactylis glomerata	Orchardgrass	non-native (invasive)	perennial grass	-	FACU	Limited
Danthonia californica	California oatgrass	native	perennial grass	-	FAC	-
Daucus carota	Carrot	non-native (invasive)	perennial herb	-	FACU	-
Elymus caput-medusae	Medusa head	non-native	annual grass	-	-	-
Elymus hispidus	Intermediate wheatgrass	non-native	perennial grass	-	-	-
Eriophyllum lanatum	Wooly sunflower	native	perennial herb	-	-	-
Erodium cicutarium	Coastal heron's bill	non-native (invasive)	annual herb	-	-	Limited
Iris sp.	-	-	-	-	-	-
Lathyrus latifolius	Sweet pea	non-native	perennial herb	-	-	-
Lepidium campestre	Field pepper grass	non-native	annual, perennial herb	-	-	-
Muhlenbergia rigens	Deergrass	native	perennial grass	-	UPL	-
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	shrub	-	FACU	High
Rumex crispus	Curly dock	non-native (invasive)	perennial herb	-	FAC	Limited
Salix sp.	Willow sp.	native	tree	-	FACW	-
Schoenoplectus sp.	Bulrush sp.	native	Perennial herb	-	OBL	-
Taraxacum officinale	Red seeded dandelion	non-native (invasive)	perennial herb	-	FACU	-
Typha sp.	Cattail	native	perennial herb	-	OBL	-
Vinca major	Vinca	non-native (invasive)	perennial herb	-	-	Moderate

Appendix E

Photo Log

Photos of the April 28th, 2022 Field Surveys of the Project Area

Photo 1: Existing Ramos Oil Company, Inc. facilities located directly adjacent to the proposed Project area. Existing facilities include development and heavy disturbance.

Photo 2: Looking west towards I-5 along the southern edge of the Ramos Oil Company, Inc. development and heavily disturbed adjacent areas. Proposed Project area is located within the agricultural fields in this photo and further to the south (left in photo).

Photo 3: Looking north along the eastern border of the Project area along Husted Road and the entrance into the Ramos Oil Company, Inc. facilities. The irrigation canal was dry during the survey and cattails and bulrush were dried and dead in late April.

Photo 4: Looking northwest from the eastern border of the Project area along Husted Road. Open Project area is located within a heavily disturbed and compacted area.

Photo 5: Looking south along the eastern Project area border with Husted Road. Irrigation canal runs to the left along Husted Road. Project area is dominated by non-native annual grassland. Single large willow tree along the irrigation canal to the left.

Photo 6: Looking south along the open irrigation canal to the left along the eastern section of the Project area. The open agricultural field is dominated by non-native annual grassland species and is heavily disturbed and compacted. No burrows.

Photo 7: From southeast section of the Project area looking north with the Ramos Oil Company, Inc. facilities in the photo. Irrigation canal underground at willow tree south.

Photo 8: Looking west at I-5 in the southern section of the Project area at the approximate location of the southern access into the Project area off of Husted Road.

Photo 9: Northeastern section of the Project area along Husted Road. Irrigation canal with potential access crossing in this area. Canal was dry with little green vegetation in the canal in late April. Canal contains marginal GGS habitat given no standing water.

Photo 10: Northern section of the Project area where irrigation canal goes east to west. Canal contains more green vegetation along northern border. Canal contains marginal GGS habitat given no standing water, but may provide migratory habitat when wet.

Appendix F

Species Table for Special-Status Plant and Wildlife Species

The following table identifies the special-status plant and wildlife species that could occur in the *Project region.* Based on a review of the CNDDB (2022), the USFWS and CNPS special-status species lists and other technical reports, **14** special-status plants and **21** special status wildlife species have the potential to occur in the project region.

Special-Status Plant Species That Are Known to Occur or Have Potential in the Region around the Project Area (CNDDB/USFWS/CNPS, 2022)

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Plants							
Amsinckia lunaris Bent-flowered fiddleneck	-	-	1b.2	3 - 500 meters	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland	Mar-Jun	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Astragalus rattanii var. jepsonianus Jepson's milk-vetch	-	-	1b.2	320 - 700 meters	Valley and foothill grassland/often serpentinite. Meadows. Subalkaline flats on overflow land in the Central Valley; usually seen in dry adobe soil.	Apr-Jun	Low. Limited undisturbed or otherwise suitable habitat in the project area. Last known registered sighting was 1926 approximately 4 miles from the project site; however, this area has since been converted to agricultural land and the population is presumed extant (CNDDB, 2021). Project site was surveyed for rare plants and no specimens were observed.
Astragalus tener var. ferrisiae Ferris's milk vetch	-	-	1b	5 - 75 meters	Meadows and seeps (vernally mesic), Valley and foothill grassland (subalkaline flats)	Apr-May	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Atriplex depressa Brittlescale	-	-	1b	1 - 320 meters	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. Usually associated with alkali scalds or alkali clay in meadows or annual grassland. Rarely associate with riparian, marshes or vernal pools.	May-Oct	Low. The project site does not contain suitable alkali habitat. Nearest registered specimen is in the Colusa National Wildlife Refuge in alkali soils with salt crusts. Project site was surveyed for rare plants and no specimens were observed.
Atriplex joaquiniana San Joaquin spearscale	-	-	1b	1 - 835 meters	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland/alkaline. Most often found in seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata*.	Apr-Oct	Low. The site is not considered a chenopod scrub or sink scrub and the soils are clayey but lack salt stains of an alkali flat. Nearest known specimen is located in Colusa NWR. Project site was surveyed for rare plants and no specimens were observed.
Castilleja rubicundula ssp. rubicundula pink creamsacs	-	-	1b.2	20 - 900 meters	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland/serpentinite	Apr-Jun	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Cordylanthus palmatus Palmate-bracted bird's beak	E	E	1b	5 - 155 meters	Chenopod scrub, Valley and foothill grassland/alkaline	May-Oct	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Delphinium recurvatum Recurved larkspur	-	-	1b	3 - 750 meters	Chenopod scrub, Cismontane woodland, Valley and foothill grassland/alkaline	Mar-Jun	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Erodium macrophyllum Round-leaved filaree	-	-	2	15 - 1200 meters	Cismontane woodland, Valley and foothill grassland/clay	Mar-May	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Fritillaria pluriflora adobe-lily	-	-	1b.2	60 - 705 meters	Chaparral, Cismontane woodland, Valley and foothill grassland/often adobe	Feb-Apr	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Lasthenia glabrata ssp. Coulteri Coulter's Goldfields	-	-	1b	1 - 1220 meters	Marshes and swamps (coastal salt), Playas, Vernal pools	Feb-Jun	Low. Limited suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Layia septentrionales Colusa layia	-	-	1b	100 - 1095 meters	Chaparral, Cismontane woodland, Valley and foothill grassland/sandy, serpentinite	Apr-May	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Navarretia leucocephala ssp. Bakeri Baker's navarretia	-	-	1b	5 - 1740 meters	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools/mesic	Apr-Jul	Low. Limited undisturbed or otherwise suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.
Streptanthus breweri var. Hesperidis green jewel-flower	-	-	1b.2	130 - 760 meters	Chaparral (openings), Cismontane woodland/serpentinite, rocky	May-Jul	Low. Limited suitable habitat in the project area. Project site was surveyed for rare plants and no specimens were observed.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Invertebrates							
Branchinecta conservatio Conservancy fairy shrimp	E		n/a	Northern, central, and portions of southern California	Ephemeral freshwater habitats, such as vernal pools and swales	Nov-Apr	Nil- Site lacks suitable habitat.
Branchinecta lynchi Vernal pool fairy shrimp	T		n/a	Populations located in an area extending from Stillwater Plain in Shasta County through most of the length of the Central Valley to Pixley in Tulare County, and along the central coast range from northern Solano County to Pinnacles in San Benito County (Eng et al. 1990; M. Fugate, pers. comm., 1991; Sugnet & Associates 1993b).	Ephemeral freshwater habitats, such as vernal pools and swales	Dec-May	Nil- Site lacks suitable habitat.
Cincindela hirticollis abrupta Sacramento Valley tiger beetle	-	-	n/a	-	-	-	Nil- Site lacks suitable habitat.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T	-	n/a	Central Califonia Valleys	Riverside freshwater habitats	-	Nil- Site lacks suitable habitat.
Lepidurus packardi Vernal pool tadpole shrimp (critical habitat)	T	-	n/a	Northern Central Valley of California, and seasonal vernal pools throughtout California	Vernal pools and swales containing clear to highly turbid waters	Winter and spring lasting until June	Nil- Site lacks suitable habitat.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Amphibians							
Ambystoma californiense California tiger salamander	T			3 meters to 1,054 meters	Annual grassland, grassy understory of valley-foothill hardwood habitats, and uncommonly along stream courses in valley-foothill riparian habitats	Year round, late spring early summer	Nil- Site lacks suitable habitat.
Rana aurora draytonii Red-legged frog	T	SC		Isolated populations have been documents in the Sierra Nevada, northern Coast, and northern Traverse Ranges. They are still locally abundant within portions of the San Francisco Bay area (including Marin county) and the central coast.	Breeds in slow moving streams and ponds, and marches with emergent vegetation and an absence or low occurance of predators	Year round depending on stage of life	Nil- Site lacks suitable habitat.
Reptiles							
Thamnophis gigas Giant garter snake	T	T	n/a	Sacramento and San Joaquin valleys	Marshes and sloughs	Mid-March until October	Low - canals contain marginal suitable habitat.
Fish							
Hypomesus transpacificus Delta smelt	T		n/a	Sacranmento Delta	Pelagic estuarine waters	Year round	Nil - Site lacks suitable habitat.
Oncorhynchus mykiss Central Valley Steelhead (&CH)	T		n/a	Sacramento Valley	Bay-Delta estuary	Year round	Nil- Site lacks suitable habitat.

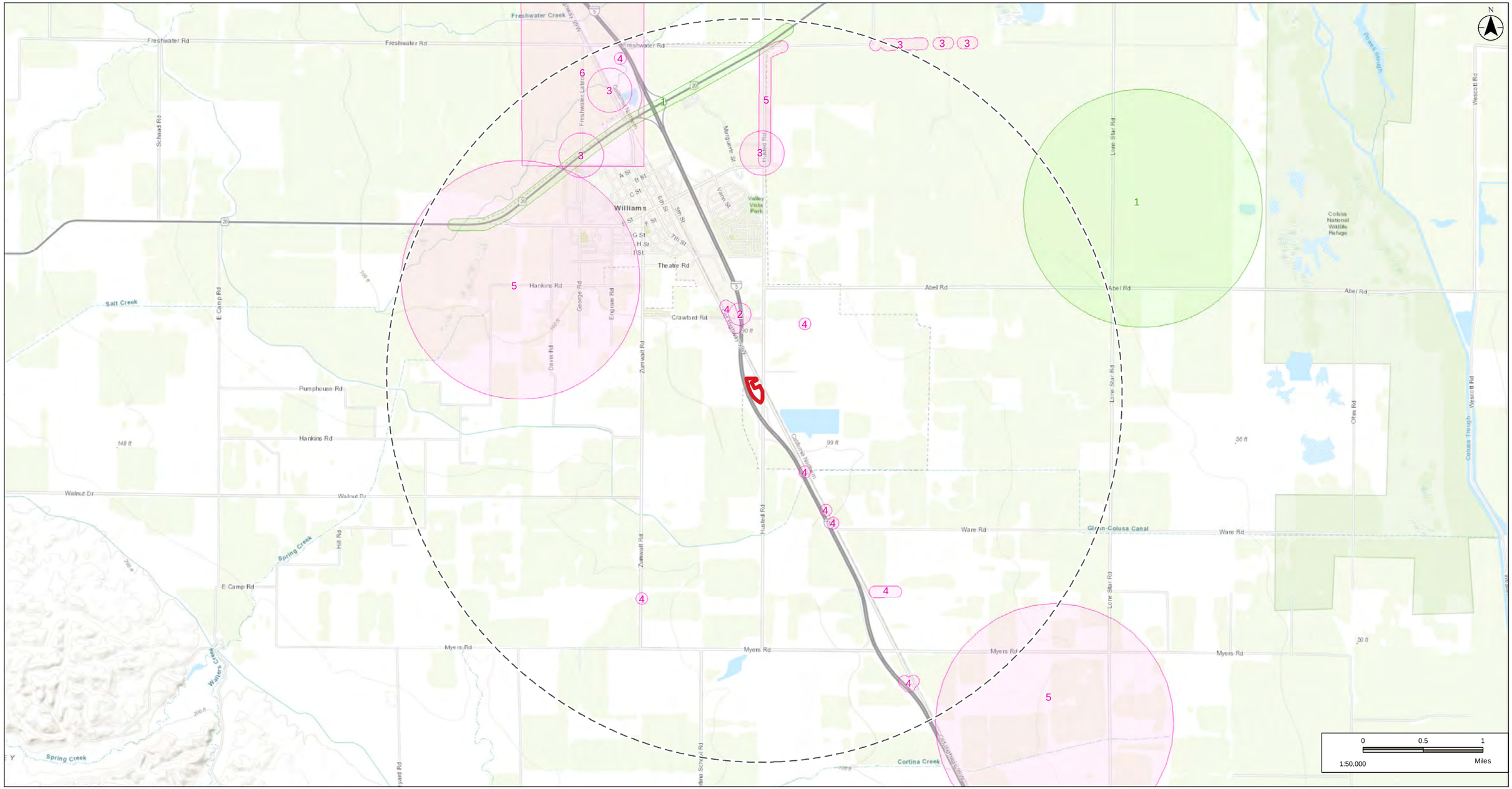
Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Oncorhynchus tshawytscha Spring-run chinook salmon (& CH)	T		n/a	Arctic, Northwest to Northeast Pacific	Freshwater streams, estuaries, and the open ocean	Year round depending on stage of life	Nil- Site lacks suitable habitat.
Oncorhynchus tshawytscha Winter-run chinook salmon (& CH)	E		n/a	Arctic, Northwest to Northeast Pacific	Freshwater streams, estuaries, and the open ocean	Year round depending on stage of life	Nil - Site lacks suitable habitat.
Oncorhynchus tshawytscha Fall/late-fall chinook salmon (& CH)	C		n/a	Arctic, Northwest to Northeast Pacific	Freshwater streams, estuaries, and the open ocean	Year round depending on stage of life	Nil - Site lacks suitable habitat.
Birds							
Agelaius tricolor Tricolor blackbird	-	SC	n/a	Largely endemic to California. Most numerous in Central Valley and Vicinity	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony. Nesting colonies highly colonial with numbers into the 100s of thousands.	Winter In project region	Low. No suitable habitat (cattail-dominated wetlands) at the project site. The nearest colonies have been located along Husted Road to the north of the project area. Some may forage along creek corridors, not affected by the project.
Athene cunicularia Burrowing owl	-	SC	n/a	Off coast islands and in open dry grassland habitats	Burrow sites are located in open dry, annual or perennial grasslands, deserts and scrublands. Subterranean nesters dependant on burrowing mammals, most notably the California ground squirrel.	-	Low. The nearest known burrowing owl site is located 5 miles southwest of the project. The project site does not contain suitable habitat for this species.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Buteo swainsoni Swainson's hawk	-	T	n/a	Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savanna. Requires adjacent suitable foraging areas such as grasslands or alfalfa/grain fields supporting rodent populations.		Low. No suitable trees for breeding. The nearest known nest is located approximately 2 miles southeast of the project site along Hwy 5. Nest and fledged young most recently reported in 2000. No swianson's hawks were observed during site visits.
Coccyzus americanus occidentalis Western yellow-billed Cuckoo	C	E	n/a	Valley foothill and desert riparian habitats in scattered locations in California	Riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps.	Summer	Low - Site lacks suitable habitat.
Plegadis chihi White-faced ibis	-	SC	n/a	No longer breeds regularly anywhere in California, although more widespread during migration	Prefers to nest in dense marsh vegetation near foraging areas in shallow water or muddy fields.		Low - Site lacks suitable habitat.
Haliaeetus leucocephalus Bald eagle	T		n/a	Northern California	Requires large, old-growth trees or snags in remote, mixed stands near water		Low - Site lacks suitable habitat.

Common Name Scientific Name	Legal Status[a]			Geographic Distribution/Floristic Province	Preferred Habitat	Identification Period	Level of Potential for Occurrence
	Federal	State	CNPS				
Riparia riparia Bank swallow	-	T	n/a	California, breeding in Northern Central Valley	Requires banks vertical and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrubland, savannah, and open riparian areas during breeding season and over grassland, brushland, wetlands, and cropland during migration.	March-August	Nil - Site lacks suitable habitat.
Strix occidentalis caurina Northern spotted owl	T		n/a	Northern California	Dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 m (0-7600 ft)		Nil - Site lacks suitable habitat.

Appendix G

CNDDB 3-Mile Buffer Figure



Legend

- Project Location
- 3 mile Buffer on Project
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat**
- Critical Wildlife Habitat**

CNDDB OCCURRENCES*

Plant Species

1. San Joaquin spearscale

Wildlife Species

2. American badger
3. Giant gartersnake
4. Swainson's hawk
5. Tricolored blackbird
6. Vernal pool tadpole shrimp

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

None

Wildlife Habitat

None

** California Natural Diversity Database (CNDDB) Data: Downloaded May, 2023, from the California Department of Fish and Wildlife*

*** United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded May, 2023 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html*

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

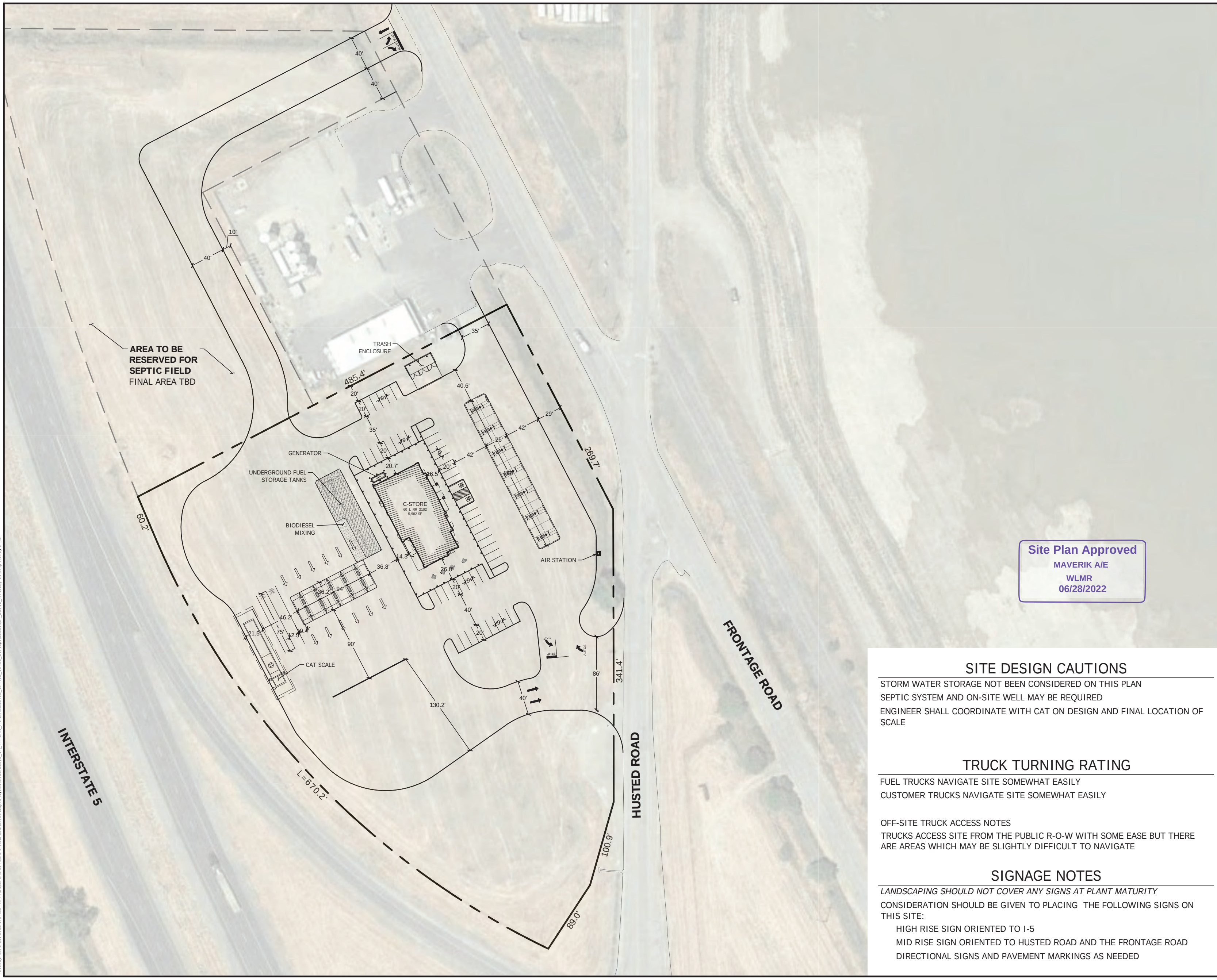
1802 Old Hwy 99W

Figure 3. CNDDB and Critical Habitat Map

Prepared: Melissa Nugent 6/7/2023 D:__GIS_Matuzak\20220415_ColusaCounty_1802 Old Hwy 99W\mxd\Fig3_CNDDB_ColusaCounty_1802 Old Hwy 99W.mxd

Appendix H

Site Plan



SITE DESIGN CAUTIONS

STORM WATER STORAGE NOT BEEN CONSIDERED ON THIS PLAN

SEPTIC SYSTEM AND ON-SITE WELL MAY BE REQUIRED

ENGINEER SHALL COORDINATE WITH CAT ON DESIGN AND FINAL LOCATION OF SCALE

TRUCK TURNING RATING

FUEL TRUCKS NAVIGATE SITE SOMEWHAT EASILY

CUSTOMER TRUCKS NAVIGATE SITE SOMEWHAT EASILY

OFF-SITE TRUCK ACCESS NOTES

TRUCKS ACCESS SITE FROM THE PUBLIC R-O-W WITH SOME EASE BUT THERE ARE AREAS WHICH MAY BE SLIGHTLY DIFFICULT TO NAVIGATE

SIGNAGE NOTES

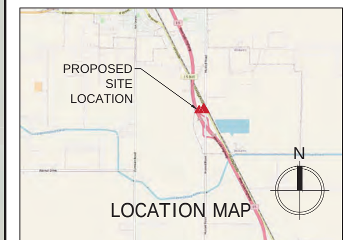
LANDSCAPING SHOULD NOT COVER ANY SIGNS AT PLANT MATURITY

CONSIDERATION SHOULD BE GIVEN TO PLACING THE FOLLOWING SIGNS ON THIS SITE:

- HIGH RISE SIGN ORIENTED TO I-5
- MID RISE SIGN ORIENTED TO HUSTED ROAD AND THE FRONTAGE ROAD
- DIRECTIONAL SIGNS AND PAVEMENT MARKINGS AS NEEDED

MAVERIK

STORE #: TBD
MAVERIK, INC.
INTERSTATE 5 &
HUSTED ROAD
WILLIAMS, CALIFORNIA



NOTES:

- AREAS AND DIMENSIONS PROVIDED ARE APPROXIMATE AND SHOULD BE VERIFIED BY A SURVEY
- THIS PLAN IS FOR ILLUSTRATIVE PURPOSES ONLY
- THE BOUNDARIES OF THE PROPERTY SHOWN ON THIS DRAWING WERE CREATED FROM SCALED INFORMATION AND SHOULD NOT BE CONSIDERED ACCURATE.

SITE DATA

PARKING:	50 STALLS PROVIDED (2 A.D.A.) (Not incl. gas canopy locations)	
PARCEL AREA:	255,779 SQ. FT.	5.87 ACRES
BUILDING AREA:	5,982 SQ. FT.	0.14 ACRES

N

50 0 50 100 150

Scale: 1" = 50'

#	DATE	DESCRIPTION	REVISED BY
8	2022/06/28	FOR APPROVAL	WLMR
7	2022/06/21	UST MARKING	WLMR
6	2022/06/03	ADD ACCESS TO ADJACENT PARCEL	WLMR
5	2022/05/09	FIT STUDY ANALYSIS 04, SITE REDESIGN	TA

JOB NUMBER 21-035 DRAWN BY WO

FIT STUDY ANALYSIS 06

Option A

Appendix I

CNDDB and USFWS iPac Reports

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: EOndx IS (104609 OR 104660 OR 14659 OR 24767 OR 27575 OR 30646 OR 43804 OR 43807 OR 64750 OR 67579 OR 89252 OR 89253 OR 89254 OR 89266 OR 89267 OR 89268 OR 90374 OR 95617 OR 97679)

Map Index Number: 43804
EO Index: 43804
Key Quad: Arbuckle (3912211)
Element Code: ABNKC19070
Occurrence Number: 922
Occurrence Last Updated: 2013-05-02

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G5
State: S3
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2006-05-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-08-06
Occurrence Rank: Fair
Owner/Manager: CALTRANS
Trend: Unknown
Presence: Presumed Extant

Location:

EAST SIDE OF ROAD 99W (I-5 N FRONTAGE) JUST NORTH OF WARE ROAD, ABOUT 2.3 MILES SE OF WILLIAMS.

Detailed Location:

MAPPED TO UTMS GIVEN ON FIELD SURVEY FORMS FOR RESSEGUIE'S ARBUCKLE 1 (NORTH, ACTIVE 2000) & ARBUCKLE 7 (SOUTH, ACTIVE 2006) SITES.

Ecological:

NEST TREES IN ROW OF DECIDUOUS TREES SHOWING SIGNS OF PAST/RECENT TRIMMING. 2000 NEST AT 90% HEIGHT ON SOUTH SIDE OF A DECIDUOUS TREE. 2006 NEST NEAR TOP OF FIRST TREE NORTH OF WARE ROAD. SURVEYOR REPORTED REPEATED MOBBING BY CROWS.

Threats:

THREATENED BY TREE TRIMMING.

General:

NESTING ACTIVITY OBSERVED BETWEEN 20 APR-8 AUG 2000; NO YOUNG FLEDGED. NESTING PAIR OBS 21 APR-14 MAY; NEST LATER ABANDONED.

PLSS: T15N, R02W, Sec. 30, SE (M)
Accuracy: specific area
Area (acres): 10
UTM: Zone-10 N4330065 E575914
Latitude/Longitude: 39.11644 / -122.12187
Elevation (feet): 95

County Summary:

Colusa

Quad Summary:

Arbuckle (3912211)

Sources:

RES00F0081	RESSEGUIE, L. - FIELD SURVEY FORM FOR BUTEO SWAINSONI (NEST SITE) 2000-08-08
RES06F0003	RESSEGUIE, L. - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2006-08-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43807
EO Index: 43807
Key Quad: Williams (3912222)
Element Code: ABNKC19070
Occurrence Number: 923
Occurrence Last Updated: 2013-02-25

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2009-06-20
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-20
Occurrence Rank: Good
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ON EAST SIDE OF HWY 99W AT CRAWFORD ROAD, WEST SIDE OF I-5, SE OF WILLIAMS.

Detailed Location:

MAPPED TO UTMS GIVEN ON FIELD SURVEY FORMS FOR RESSEGUIE'S X SITE (2000), COORDINATES FROM CDFW NEST RECORDS (2002, 2003), AND POINT FROM CDFW SHAPEFILE OF NESTS RECORDED IN 2009. 2003 NEST SOUTH OF CRAWFORD RD, OTHER NESTS TO NORTH.

Ecological:

2000 NEST TREE WAS A COTTONWOOD. 2002 NEST IN SAME OR ADJACENT COTTONWOOD. 2003 NEST IN 60' VALLEY OAK JUST N OF I-5 OVERPASS, NEAR DIRT PARKING LOT. RED-TAILED HAWKS ALSO OBSERVED. 2009 NEST IN 40' WILLOW SURROUNDED BY FALLOW LAND.

Threats:

General:

2 YOUNG FLEDGED IN 2000. 2 YOUNG PRODUCED IN 2002, PRESUMED FLEDGED. 2 FLEDGED IN 2003. NEST WITH YOUNG OBSERVED ON 20 JUN 2009, FLEDGING SUCCESS UNKNOWN.

PLSS: T15N, R03W, Sec. 24, NE (M)
Accuracy: specific area
Area (acres): 19
UTM: Zone-10 N4332958 E574484
Latitude/Longitude: 39.14263 / -122.13809
Elevation (feet): 90

County Summary:	Quad Summary:
Colusa	Williams (3912222)

Sources:

DFG05U0001	CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - ACCESS DATABASE & EXCEL TABLE OF SWAINSON'S HAWK NEST RECORDS FROM 2000-2004. 2005-XX-XX
DFG09D0001	CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009. 2009-XX-XX
RES00F0114	RESSEGUIE, L. - FIELD SURVEY FORM FOR BUTEO SWAINSONI (NEST SITE) 2000-08-08

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88241	**EO Index:**	89253
Key Quad:	Arbuckle (3912211)	**Element Code:**	ABNKC19070
Occurrence Number:	2079	**Occurrence Last Updated:**	2016-08-19

Scientific Name: *Buteo swainsoni* **Common Name:** Swainson's hawk

Listing Status: **Federal:** None
State: Threatened

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	2016-04-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-12	**Occurrence Rank:**	Good
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

E SIDE OF I-5 ABOUT 0.3 MI SSE OF MEYERS RD OVERPASS AND 0.9 MI NNW OF CORTINA CREEK CROSSING, 4.5 MI SE OF WILLIAMS.

Detailed Location:

MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORM FOR RESSEGUIE'S SITE ARBUCKLE 2, CDFW NEST RECORDS FROM 2009, & COORDINATES GIVEN ON 2016 FIELD SURVEY FORM.

Ecological:

2006: NEST IN CLUSTER OF TREES BETWEEN I-5 AND FRONTAGE ROAD, SURROUNDED BY RUDERAL LAND WITH CULTIVATED LAND TO THE NW. A GREAT HORNED OWL NEST WAS SEEN AT THE S EDGE OF THE GROVE. 2009: NEST IN 25' WILLOW ABOUT 80 M FURTHER SE.

Threats:

General:

ACTIVE NEST FLEDGED 1 IN 2006. NEST WITH YOUNG OBSERVED ON 26 MAY 2009; FLEDGING SUCCESS UNKNOWN. NESTING PAIR OBSERVED IN 2016.

PLSS:	T14N, R02W, Sec. 5, NW (M)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-10 N4327942 E576953	**Latitude/Longitude:**	39.09722 / -122.1101	**Elevation (feet):**	92

County Summary:	**Quad Summary:**
Colusa	Arbuckle (3912211)

Sources:

DFG09D0001	CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009. 2009-XX-XX
RES06F0002	RESSEGUIE, L. - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2006-08-06
WRI16F0002	WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2016-04-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88240
EO Index: 89252
Key Quad: Arbuckle (3912211)
Element Code: ABNKC19070
Occurrence Number: 2080
Occurrence Last Updated: 2013-03-13

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2006-08-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-08-28
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

EAST SIDE OF RAILROAD TRACKS ALONG HWY 99W (I-5 N FRONTAGE), ABOUT 0.5 MI NNW OF MEYERS RD AND 0.6 MI SSE OF WARE RD.

Detailed Location:

MAPPED TO LOCATION DESCRIPTION OF RESSEGUIE'S ARBUCKLE 1 SITE.

Ecological:

NEST IN EAST-WEST ROW OF SLENDER BLUE GUM EUCALYPTUS EAST OF THE RAILROAD TRACKS.

Threats:

General:

ACTIVE NEST MONITORED OVER 5 VISITS 20 JUL-28 AUG FLEDGED 1 IN 2006.

PLSS: T15N, R02W, Sec. 32 (M)
Accuracy: non-specific area
Area (acres): 16
UTM: Zone-10 N4329163 E576484
Latitude/Longitude: 39.10826 / -122.11537
Elevation (feet): 90

County Summary:	Quad Summary:
Colusa	Arbuckle (3912211)

Sources:

RES06F0009 RESSEGUIE, L. - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2006-08-28

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88242
EO Index: 89254
Key Quad: Cortina Creek (3912212)
Element Code: ABNKC19070
Occurrence Number: 2081
Occurrence Last Updated: 2013-02-19

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2009-05-22
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-05-22
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

E SIDE OF I-5 JUST N OF GLENN-COLUSA CANAL CROSSING ABOUT 0.5 MI SE OF HUSTED RD OVERPASS & 0.6 MI NNW OF WARE RD.

Detailed Location:

MAPPED TO POINT FROM CDFW SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009.

Ecological:

NEST IN 45' TREE CODED AS "OTHER EXOTIC" (NOT WALNUT OR EUCALYPTUS).

Threats:

General:

NEST WITH YOUNG OBSERVED ON 22 MAY 2009; FLEDGING SUCCESS UNKNOWN.

PLSS: T15N, R02W, Sec. 30, SW (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4330759 E575525
Latitude/Longitude: 39.12272 / -122.12628
Elevation (feet): 100

County Summary:	Quad Summary:
Colusa	Arbuckle (3912211), Cortina Creek (3912212)

Sources:

DFG09D0001 CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009. 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	88254	**EO Index:**	89266
Key Quad:	Williams (3912222)	**Element Code:**	ABNKC19070
Occurrence Number:	2093	**Occurrence Last Updated:**	2013-02-20

Scientific Name: *Buteo swainsoni* **Common Name:** Swainson's hawk

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Threatened **Other Lists:** BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5

State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	2009-05-15	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-15	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST SIDE OF I-5 ABOUT 0.1 MI S OF FRESHWATER RD OVERPASS AND 0.5 MI NNW OF HWY 20 INTERCHANGE, N OF WILLIAMS.

Detailed Location:

MAPPED TO COORDINATES FOM CDFW NEST RECORDS FROM 2000-2004 AND POINT FROM CDFW SHAPEFILE OF NEST RECORDS FROM 2009.

Ecological:

2004 NEST IN 25' WILLOW SURROUNDED BY FALLOW LAND. 2009 NEST IN 60' COTTONWOOD SURROUNDED BY FALLOW LAND.

Threats:

General:

NEST MONITORED IN 2004 PRODUCED 2 YOUNG, BOTH PRESUMED FLEDGED. NEST WITH YOUNG OBSERVED ON 15 MAY 2009, FLEDGING SUCCESS UNKNOWN.

PLSS:	T15N, R03W, Sec. 11, NE (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4336280 E572986	**Latitude/Longitude:**	39.17269 / -122.15506	**Elevation (feet):**	70

County Summary:	**Quad Summary:**
Colusa	Williams (3912222)

Sources:

DFG05U0001	CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - ACCESS DATABASE & EXCEL TABLE OF SWAINSON'S HAWK NEST RECORDS FROM 2000-2004. 2005-XX-XX
DFG09D0001	CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009. 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88255
EO Index: 89267
Key Quad: Williams (3912222)
Element Code: ABNKC19070
Occurrence Number: 2094
Occurrence Last Updated: 2013-02-20

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2003-07-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2003-07-21
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 0.3 MILE E OF HUSTED RD AT CRAWFORD RD AND 1.6 MILES SE OF 7TH ST & E ST IN WILLIAMS.

Detailed Location:

MAPPED TO COORDINATES FROM CDFW 2000-2004 NEST RECORDS.

Ecological:

NEST IN 50' VALLEY OAK WITH FALLOW LAND TO THE EAST AND CROPLAND TO THE WEST.

Threats:

General:

NEST MONITORED APR-JUL 2003; 1 FLEDGED.

PLSS: T15N, R02W, Sec. 19, NW (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4332747 E575504
Latitude/Longitude: 39.14064 / -122.12631
Elevation (feet): 80

County Summary:	Quad Summary:
Colusa	Colusa (3912221), Williams (3912222)

Sources:

DFG05U0001 CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - ACCESS DATABASE & EXCEL TABLE OF SWAINSON'S HAWK NEST RECORDS FROM 2000-2004. 2005-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 88256
EO Index: 89268
Key Quad: Cortina Creek (3912212)
Element Code: ABNKC19070
Occurrence Number: 2095
Occurrence Last Updated: 2013-02-20

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 2009-07-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-07-28
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

EAST SIDE OF ZUMWALT RD, ABOUT 0.4 MILE NORTH OF MEYERS RD AND 0.8 MILE SOUTH OF WALNUT DR, SOUTH OF WILLIAMS.

Detailed Location:

MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST RECORDS FROM 2009.

Ecological:

NEST IN 70' TREE CODED AS "OTHER NATIVE" (NOT COTTONWOOD, WILLOW, PINE, OR BLUE OR VALLEY OAK) WITH ORCHARDS TO THE NE, ALFALFA SE, CROPLAND TO SW, AND PASTURE TO THE NW.

Threats:

General:

NEST WITH YOUNG OBSERVED ON 28 JUL 2009; FLEDGING SUCCESS UNKNOWN.

PLSS: T15N, R03W, Sec. 36, SW (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4329033 E573356
Latitude/Longitude: 39.10736 / -122.15156
Elevation (feet): 125

County Summary:	Quad Summary:
Colusa	Cortina Creek (3912212)

Sources:

DFG09D0001 CALIFORNIA DEPARTMENT OF FISH & GAME - REGION 2 - SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009. 2009-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	09656	**EO Index:**	14659
Key Quad:	Williams (3912222)	**Element Code:**	ABPBXB0020
Occurrence Number:	1	**Occurrence Last Updated:**	2015-06-30

Scientific Name: *Agelaius tricolor*

Common Name: tricolored blackbird

Listing Status:
Federal: None
State: Threatened

Rare Plant Rank:

CNDDB Element Ranks:
Global: G1G2
State: S1S2

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed:	1981-05-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2014-04-19	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

VICINITY OF HWY 20 & HUSTED RD INTERSECTION, 0.9 MI E OF I-5 & HWY 20 INTERSECTION, 1.3 MI NE OF WILLIAMS POST OFFICE.

Detailed Location:

MAPPED TO PROVIDED LOCATION DESCRIPTION OF "RICHMOND GUN CLUB, HWY. 20 & HAUSTED RD, T 15N, R 2/3W, SECTIONS 7/12." COULD NOT LOCATE "RICHMOND GUN CLUB" IN THE VICINITY. "HAUSTED RD" PRESUMED TO BE HUSTED RD.

Ecological:

1981 NESTS BUILT IN CATTAILS ALONG CANALS & CULVERTS. COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "HUSTED ROAD AT HIGHWAY 20."

Threats:

POTENTIAL THREAT DUE TO HERBICIDE SPRAYING.

General:

COLONY OF 239 BIRDS OBSERVED ON 19 MAY 1981; NESTS ABANDONED WHEN CATTAILS STARTED DYING, POSSIBLY FROM HERBICIDE SPRAYING. 0 BIRDS OBSERVED ON 15 APR 2011 AND 19 APR 2014.

PLSS:	T15N, R02W, Sec. 07 (M)	**Accuracy:**	non-specific area	**Area (acres):**	72
UTM:	Zone-10 N4335726 E574935	**Latitude/Longitude:**	39.16753 / -122.13257	**Elevation (feet):**	65

County Summary:	**Quad Summary:**
Colusa	Williams (3912222)

Sources:

BEE91R0001	BEEDY, E.C., S.D. SANDERS & D. BLOOM - BREEDING STATUS, DISTRIBURTION, AND HABITAT ASSOCIATIONS OF THE TRICOLORED BLACKBIRD (AGELAIUS TRICOLOR), 1850-1989. 1991-06-XX
HOS86R0001	HOSEA, R.C. - A POPULATION CENSUS OF THE TRICOLORED BLACKBIRD, AGELAIUS TRICOLOR (AUDUBON), IN FOUR COUNTIES IN THE NORTHERN CENTRAL VALLEY OF CALIFORNIA. M.A. THESIS, CSU-SACRAMENTO. 1986-08-14
TRI14D0001	TRICOLORED BLACKBIRD PORTAL - ICE (UNIVERSITY OF CALIFORNIA, DAVIS) - 1907-2014 TRICOLORED BLACKBIRD RECORDS FROM UC DAVIS TRICOLORED BLACKBIRD PORTAL, INFORMATION CENTER FOR THE ENVIRONMENT (ICE) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 09755
EO Index: 24767
Key Quad: Arbuckle (3912211)
Element Code: ABPBXB0020
Occurrence Number: 48
Occurrence Last Updated: 1991-07-25

Scientific Name: *Agelaius tricolor*
Common Name: tricolored blackbird

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G1G2
State: S1S2
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:

HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:

REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed: 1932-06-13
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1932-06-13
Occurrence Rank: None
Owner/Manager: PVT
Trend: Unknown
Presence: Possibly Extirpated

Location:

MARSH 9 MI SW OF COLUSA.

Detailed Location:

COLONY OF APPROX 1125 BIRDS OBS BY NEFF NESTING IN CATTAILS.

Ecological:

Threats:

General:

PRESUMED EXTIRPATED ACC TO BEEDY 1991.

PLSS: T14N, R02W, Sec. 04 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4327424 E578915
Latitude/Longitude: 39.09238 / -122.08747
Elevation (feet): 75

County Summary:

Colusa

Quad Summary:

Arbuckle (3912211)

Sources:

BEE91R0001 BEEDY, E.C., S.D. SANDERS & D. BLOOM - BREEDING STATUS, DISTRIBURTION, AND HABITAT ASSOCIATIONS OF THE TRICOLORED BLACKBIRD (AGELAIUS TRICOLOR), 1850-1989. 1991-06-XX

HOS86U0002 HOSEA, R. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - COMPILATION, COUNTY BY COUNTY, OF TRICOLORED BLACKBIRD NESTING OBSERVATIONS 1986-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 96515
EO Index: 97679
Key Quad: Williams (3912222)
Element Code: ABPBXB0020
Occurrence Number: 531
Occurrence Last Updated: 2015-07-29

Scientific Name: *Agelaius tricolor*
Common Name: tricolored blackbird

Listing Status: **Federal:** None
State: Threatened
CNDDB Element Ranks: **Global:** G1G2
State: S1S2

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_EN-Endangered
NABCI_RWL-Red Watch List
USFWS_BCC-Birds of Conservation Concern

General Habitat:
HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro Habitat:
REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Last Date Observed: 1936-05-28
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2014-04-18
Occurrence Rank: None
Owner/Manager: UNKNOWN, PVT
Trend: Unknown
Presence: Possibly Extirpated

Location:
VICINITY OF WILLIAMS, ABOUT 1.8 MILES SW OF I-5 AND HWY 20 INTERSECTION.

Detailed Location:
COLONY DATA STORED IN UC DAVIS TRBL PORTAL; SITE NAME "WILLIAMS." EXACT LOCATION UNKNOWN, LOCATION DESCRIPTION WAS ONLY "NEAR WILLIAMS." MAPPED GENERALLY TO POSSIBLE MARSH AREA DEPICTED ON A 1952 USGS TOPO MAP FOR WILLIAMS QUAD.

Ecological:
CATTAIL MARSH (1936). COLONY PRESUMED EXTIRPATED BY BEEDY (1991).

Threats:

General:
TWO NESTING COLONIES OBSERVED ON 28 MAY 1936 (NEFF 1937); ONE COLONY ESTIMATED AT 2,000 NESTS, THE SECOND COLONY ESTIMATED AT 3,000 NESTS. 0 OBSERVED ON 18 APR 2014.

PLSS: T15N, R03W, Sec. 15 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4333294 E571680
Latitude/Longitude: 39.14589 / -122.17049
Elevation (feet): 90

County Summary:	Quad Summary:
Colusa	Williams (3912222)

Sources:

BEE91R0001	BEEDY, E.C., S.D. SANDERS & D. BLOOM - BREEDING STATUS, DISTRIBURTION, AND HABITAT ASSOCIATIONS OF THE TRICOLORED BLACKBIRD (AGELAIUS TRICOLOR), 1850-1989. 1991-06-XX
NEF37R0001	NEFF, J.A. - DISTRIBUTION OF THE TRICOLORED RED WING. THE CONDOR 39(2):61-81. 1937-03-XX
TRI14D0001	TRICOLORED BLACKBIRD PORTAL - ICE (UNIVERSITY OF CALIFORNIA, DAVIS) - 1907-2014 TRICOLORED BLACKBIRD RECORDS FROM UC DAVIS TRICOLORED BLACKBIRD PORTAL, INFORMATION CENTER FOR THE ENVIRONMENT (ICE) 2014-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A2989
Key Quad: Williams (3912222)
Occurrence Number: 532

EO Index: 104609
Element Code: AMAJF04010
Occurrence Last Updated: 2016-12-14

Scientific Name: *Taxidea taxus*
Common Name: American badger

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G5
State: S3

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.

Micro Habitat:

NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.

Last Date Observed: 2016-08-29
Last Survey Date: 2016-08-29
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

SOUTHBOUND I-5 ABOUT 0.2 MILES N OF OLD HWY 99 (7TH ST) OVERPASS & 0.7 MILES SE OF OLD HWY 99W AT J STREET, WILLIAMS.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

HIGHWAY PASSING THROUGH AN AREA OF ROW CROPS AND INDUSTRIAL BUILDINGS WITH RESIDENTIAL DEVELOPMENT NEARBY.

Threats:

VEHICULAR TRAFFIC.

General:

1 ADULT OBSERVED DEAD ON SHOULDER OF ROAD ON 29 AUG 2016.

PLSS: T15N, R03W, Sec. 24, NE (M)
UTM: Zone-10 N4332866 E574630

Accuracy: 1/10 mile
Latitude/Longitude: 39.14179 / -122.13642

Area (acres): 18
Elevation (feet): 90

County Summary:	Quad Summary:
Colusa	Williams (3912222)

Sources:

ELL16F0002 ELLIOTT, R. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-CALIFORNIA NATURAL DIVERSITY DATABASE) - FIELD SURVEY FORM FOR TAXIDEA TAXUS 2016-08-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 09653
EO Index: 27575
Key Quad: Williams (3912222)
Element Code: ARADB36150
Occurrence Number: 57
Occurrence Last Updated: 2005-06-27

Scientific Name: *Thamnophis gigas*
Common Name: giant gartersnake

Listing Status: **Federal:** Threatened
State: Threatened
Rare Plant Rank:
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.

Micro Habitat:
THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.

Last Date Observed: 1981-05-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1987-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
HUSTED ROAD, 0.1 MILE NORTH OF E STREET, WILLIAMS.

Detailed Location:

Ecological:

Threats:

General:
ONE SUBADULT FOUND DOR (LSU #45410).

PLSS: T15N, R03W, Sec. 12, SE (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4335031 E574901
Latitude/Longitude: 39.16127 / -122.13304
Elevation (feet): 70

County Summary:
Colusa

Quad Summary:
Williams (3912222)

Sources:

HAN88R0001	HANSEN, G. - DRAFT FOR REVIEW OF THE STATUS OF THE GIANT GARTER SNAKE (THAMNOPHIS COUCHII GIGAS) AND ITS SUPPORTING HABITAT DURING 1986-1987. 1988-XX-XX
HAN96R0001	HANSEN, G. - GPS COORDINATES FOR LOCATIONS OF THE GIANT GARTER SNAKE (THAMNOPHIS GIGAS) IN THE SACRAMENTO VALLEY AT THE TIME OF FEDERAL LISTING 1996-09-12
LSU05S0001	LOUISIANA STATE UNIVERSITY MUSEUM OF ZOOLOGY - PRINTOUT OF THAMNOPHIS GIGAS RECORDS. 2005-06-21
STE82U0001	STEWART, G.R. - LETTER TO JOHN BRODE, DFG, REGARDING 2 DOR GIANT GARTER SNAKES FOUND IN COLUSA COUNTY. 1982-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 64671
EO Index: 64750
Key Quad: Williams (3912222)
Element Code: ARADB36150
Occurrence Number: 241
Occurrence Last Updated: 2006-05-11

Scientific Name: *Thamnophis gigas*
Common Name: giant gartersnake

Listing Status: **Federal:** Threatened
Rare Plant Rank:
State: Threatened
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.

Micro Habitat:

THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.

Last Date Observed: 1986-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1986-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SALT CREEK AT OLD HWY 99 W, 0.5 MILE NORTH OF WILLIAMS.

Detailed Location:

MAPPED ACCORDING TO PROVIDED LOCATION DESCRIPTION OF "SALT CK AT OLD HWY 99 W, 0.5 MILES N OF WILLIAMS."

Ecological:

Threats:

General:

UNKNOWN NUMBER OF SNAKES OBSERVED DURING 1986.

PLSS: T15N, R03W, Sec. 11, NE (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4335853 E572847
Latitude/Longitude: 39.16885 / -122.15671
Elevation (feet): 75

County Summary:	Quad Summary:
Colusa	Williams (3912222)

Sources:

HAN96R0001 HANSEN, G. - GPS COORDINATES FOR LOCATIONS OF THE GIANT GARTER SNAKE (THAMNOPHIS GIGAS) IN THE SACRAMENTO VALLEY AT THE TIME OF FEDERAL LISTING 1996-09-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 94493
EO Index: 95617
Key Quad: Williams (3912222)
Element Code: ARADB36150
Occurrence Number: 398
Occurrence Last Updated: 2014-11-20

Scientific Name: *Thamnophis gigas*
Common Name: giant gartersnake

Listing Status: **Federal:** Threatened
Rare Plant Rank:
State: Threatened
Other Lists: IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.

Micro Habitat:

THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.

Last Date Observed: 1973-09-29
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1973-09-29
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 0.7 MILE SW OF I-5 AND HWY 20 INTERSECTION, 0.7 MILE NW OF WILLIAMNS POST OFFICE, SW OF COLUSA.

Detailed Location:

MAPPED ACCORDING TO PROVIDED LOCATION DESCRIPTION OF "HWY 20 AT FRESHWATER LATERAL JCT, W OF I-5."

Ecological:

Threats:

General:

AT LEAST 1 COLLECTED ON 29 SEP 1973; J. BRODE FG #756.

PLSS: T15N, R03W, Sec. 11, S (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4334977 E572477
Latitude/Longitude: 39.16099 / -122.16109
Elevation (feet): 75

County Summary:

Colusa

Quad Summary:

Williams (3912222)

Sources:

BRO80U0001 BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG) 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A3037	**EO Index:**	104660
Key Quad:	Colusa (3912221)	**Element Code:**	ARADB36150
Occurrence Number:	412	**Occurrence Last Updated:**	2016-12-19

Scientific Name: *Thamnophis gigas* **Common Name:** giant gartersnake

Listing Status: **Federal:** Threatened **Rare Plant Rank:**

State: Threatened **Other Lists:** IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.

Micro Habitat:

THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.

Last Date Observed:	2015-07-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2015-07-22	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM THE CORNER OF FRESHWATER RD & SAN JOSE RD TO ABOUT 0.8 MI E, 2.3 MILES NE OF WILLIAMS.

Detailed Location:

MAPPED TO PROVIDED COORDINATES. BRANSFORD SITE; SEE ALSO OCC #413 & 414.

Ecological:

Threats:

General:

12 CAPTURES, 28 RECAPTURES, AND 4 SIGHTINGS DURING 2015 STUDY.

PLSS:	T15N, R02W, Sec. 8, N (M)	**Accuracy:**	specific area	**Area (acres):**	47
UTM:	Zone-10 N4336523 E577037	**Latitude/Longitude:**	39.17452 / -122.10816	**Elevation (feet):**	60

County Summary:	**Quad Summary:**
Colusa	Colusa (3912221)

Sources:

HAL15D0001	HALSTEAD, B. (U.S. GEOLOGICAL SURVEY) - TABLE OF COLLECTED GIANT GARTERSNAKES IN 2015 [SC-010779] 2015-XX-XX
HAL15R0001	HALSTEAD, B. (U.S. GEOLOGICAL SURVEY) - 2015 ANNUAL SUMMARY REPORT TO USFWS (TE-157216-2) 2015-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	33665	**EO Index:**	30646
Key Quad:	Williams (3912222)	**Element Code:**	ICBRA10010
Occurrence Number:	80	**Occurrence Last Updated:**	2005-01-07

Scientific Name: *Lepidurus packardi* **Common Name:** vernal pool tadpole shrimp

Listing Status: **Federal:** Endangered **Rare Plant Rank:**

State: None **Other Lists:** IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G4

State: S3S4

General Habitat:

INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.

Micro Habitat:

POOLS COMMONLY FOUND IN GRASS-BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED AND HIGHLY TURBID.

Last Date Observed:	1993-03-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1993-03-11	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

FROM WILLIAMS TO DELPHOS.

Detailed Location:

3 FEATURES INSPECTED SOMEWHERE IN SECTIONS 2 & 11. TWO CONTAINED LEPIDURUS PACKARDI. NO BRANCHINECTA LYNCHI OBSERVED.

Ecological:

MANMADE ROADSIDE DITCHES.

Threats:

General:

SUGNET RECORD NUMBERS 189 & 190. 8 INDIVIDUALS COLLECTED 21 FEB 1971, DEPOSITED IN SHASTA COLLEGE COLLECTION.

PLSS:	T15N, R03W, Sec. 11 (M)	**Accuracy:**	non-specific area	**Area (acres):**	1,346
UTM:	Zone-10 N4336481 E572482	**Latitude/Longitude:**	39.17454 / -122.16088	**Elevation (feet):**	75

County Summary:	**Quad Summary:**
Colusa	Williams (3912222)

Sources:

ROG01A0001	ROGERS, D. - REVISION OF THE NEARCTIC LEPIDURUS (NOTOSTRACA). JOURNAL OF CRUSTACEAN BIOLOGY 21(4):991-1006. 2001-XX-XX
SUG93U0001	SUGNET & ASSOCIATES - PRINTOUT OF LOCATION (T-R-S) OF FAIRY SHRIMP SAMPLING. (OBTAINED FROM THE U.S. FISH AND WILDLIFE SERVICE) 1993-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 67411
Key Quad: Colusa (3912221)
Occurrence Number: 88
EO Index: 67579
Element Code: PDCHE041F3
Occurrence Last Updated: 2006-12-13

Scientific Name: *Extriplex joaquinana*
Common Name: San Joaquin spearscale

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:
CHENOPOD SCRUB, ALKALI MEADOW, PLAYAS, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:
IN SEASONAL ALKALI WETLANDS OR ALKALI SINK SCRUB WITH DISTICHLIS SPICATA, FRANKENIA, ETC. 0-800 M.

Last Date Observed: 1917-04-12
Last Survey Date: 1917-04-12
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
4 MILES EAST OF WILLIAMS.

Detailed Location:
MAPPED BY CNDDB AS BEST GUESS 4 AIR MILES EAST OF WILLIAMS.

Ecological:
ALKALI PLAINS.

Threats:
MOST OF THIS AREA HAS BEEN CONVERTED TO AGRICULTURE, BUT THERE MAY STILL BE SUITABLE HABITAT WITHIN THE COLUSA NWR.

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1917 COLLECTION BY FERRIS. NEEDS FIELDWORK.

PLSS: T15N, R02W, Sec. 15 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4334350 E580023
Latitude/Longitude: 39.15467 / -122.07384
Elevation (feet):

County Summary:	Quad Summary:
Colusa	Colusa (3912221)

Sources:
FER17S0006 FERRIS, R. - FERRIS #505 POM #164903 1917-04-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89387	**EO Index:**	90374
Key Quad:	Williams (3912222)	**Element Code:**	PDCHE041F3
Occurrence Number:	115	**Occurrence Last Updated:**	2013-06-10

Scientific Name: *Extriplex joaquinana*

Common Name: San Joaquin spearscale

Listing Status: **Federal:** None

State: None

Rare Plant Rank: 1B.2

Other Lists: BLM_S-Sensitive
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G2

State: S2

General Habitat:

CHENOPOD SCRUB, ALKALI MEADOW, PLAYAS, VALLEY AND FOOTHILL GRASSLAND.

Micro Habitat:

IN SEASONAL ALKALI WETLANDS OR ALKALI SINK SCRUB WITH DISTICHLIS SPICATA, FRANKENIA, ETC. 0-800 M.

Last Date Observed:	1916-06-09	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1916-06-09	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NEAR WILLIAMS, ALONG THE STATE HIGHWAY.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB ALONG STATE ROUTE 20 IN THE VICINITY OF WILLIAMS.

Ecological:

LOW GROUND IN SALINE SOIL ALONG THE STATE HIGHWAY.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1916 COLLECTION BY HELLER. NEEDS FIELDWORK.

PLSS:	T15N, R03W, Sec. 11, S (M)	**Accuracy:**	non-specific area	**Area (acres):**	213
UTM:	Zone-10 N4335405 E573083	**Latitude/Longitude:**	39.16479 / -122.15403	**Elevation (feet):**	

County Summary:	**Quad Summary:**
Colusa	Williams (3912222)

Sources:

HEL16S0006 HELLER, A. - HELLER #12394 DAV #97461 1916-06-09

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

Colusa County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
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 **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

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

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

Listed species[1] 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[2]).

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.

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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:

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

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

NAME	STATUS
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, 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 (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* 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

Black Tern Chlidonias niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Common Yellowthroat Geothlypis trichas sinuosa 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
Nuttall's Woodpecker Picoides nuttallii 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
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Tricolored Blackbird Agelaius tricolor 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
Yellow-billed Magpie Pica nuttalli 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.

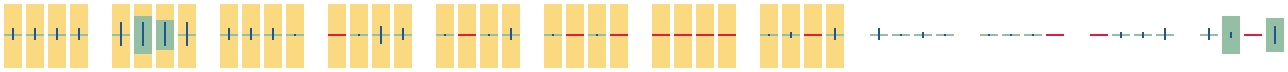
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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.

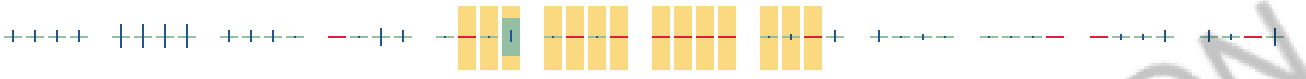
probability of presence breeding season survey effort no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Bald Eagle Non-BCC Vulnerable (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.)

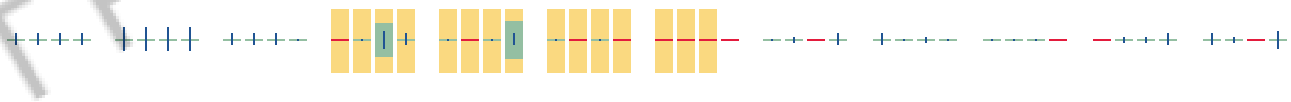


Black Tern BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



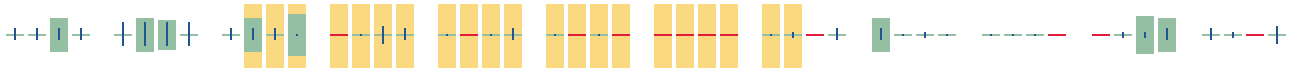
Common Yellowthroat BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

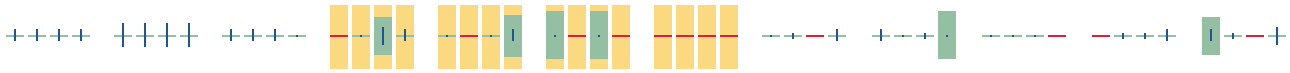


Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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



Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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 migratory birds potentially occurring 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 AKN Phenology 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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

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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME
This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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 tuberficid 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.