

BIOLOGICAL REVIEW

**AC Marriott Hotel
Proposed Off-site Parking Lot
Santa Rosa, CA 95405**



**Prepared
By
Kjeldsen Biological Consulting
For**

J. Kapolchok & Associates

April 2017

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AC Marriott Hotel
Proposed Off-site Parking Lot
6th Street and Davis Street
Santa Rosa, CA 95405

PROJECT NAME:

AC Marriott Hotel
Proposed Off-site Parking Lot

6th Street and Davis Street
Santa Rosa, CA 95405
APNs 010-086-008 and 014
Sonoma County

PROJECT COORDINATOR:

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PERIOD OF SURVEY:

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A. PROJECT DESCRIPTION

A.1 Introduction

This study was conducted at the request of Kapolchok & Associates as background information for permits from the City of Santa Rosa. The property consists of an abandoned house and yard (Project Site). The property is within the city limits of the Santa Rosa and within the USGS Santa Rosa Quadrangle.

The project proposes development of an off-street parking lot for the Marriott Hotel in a vacant property adjacent to State Highway 101 at the corner of 6th and Davis Streets. The surrounding land use consists of city streets and State Highway 101. Plate I provides a location and Plate III is an aerial of the property.

A.2 Purpose

The purpose of this report is to provide an analysis of potential biological resources on the property. Our biological review was conducted to identify the need for any State or Federal biological permits, compliance with the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA).

This report addresses the presence of or potential for special-status species listed by the California Department of Fish and Wildlife (CDFW) and or U.S. Fish and Wildlife Service (USFWS) which may be present on or associated with the project site.

Our study also addresses the presence of or potential for sensitive plant communities listed by CDFW, Critical Habitat listed by the USFWS, Seasonal Wetlands (including creeks, drainage swales, vernal pools) regulated by ACOE, CDFW or California Regional Water Quality Control Board (RWQCB).

This biological review provides general information on the potential presence of sensitive species and habitats. This biological review is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study and on site conditions that were observed on the date of the site visit.

B. SURVEY METHODOLOGY

B.1 Project Scoping

The scoping for the study area considered location and type of habitat and or vegetation types present on the property or associated with potential special-status plant species known for the Quadrangle, surrounding Quadrangles, the County or the region. Our scoping also considered records in the most recent version of the Department of Fish and Wildlife California Natural Diversity Data Base (CDFW CNDDDB Rare Find), and U.S. Fish and Wildlife species list for the property. “Target” special-status species are those listed by the State or Federal government as endangered or threatened in the region. Our scoping is also a function of our familiarity with the local flora and fauna as well as previous projects on other properties in the area.

Google historic aerial photographs were reviewed to provide a context for biological analysis of the study site.

Special-status Species

Special-status organisms are plants or animals that have been designated by Federal or State agencies as rare, endangered, or threatened. Section 15380 of the California Environmental Quality Act [CEQA (September, 1983)] has a discussion regarding non-listed (State) taxa. This section states that a plant (or animal) must be treated as Rare or Endangered even if it is not officially listed as such. If a person (or organization) provides information showing that a taxa meets the State’s definitions and criteria, then the taxa should be treated as such.

The California Endangered Species Act (CESA)

Fish and Wildlife Code Sections 2050-2098 establishes State policy to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The Fish and Wildlife Commission is charged with establishing a list of endangered and threatened species. State agencies must consult with the CDFW to determine if a proposed project has the potential to jeopardize the continued existence of listed endangered, threatened, or candidate species.

California Department of Fish and Game Code Section 1602

An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

Critical Habitat

Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery.

Sensitive Communities

CDFW Natural Diversity Data Base uses environmentally sensitive plant communities for plant populations that are rare or threatened in nature. Sensitive habitat is defined as any area which meets one of the following criteria: (1) habitats containing or supporting “rare and endangered” species as

defined by the State Fish and Wildlife Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

B.2 Field Survey Methodology

Our fieldwork was conducted by walking the proposed project site with two personnel. The proposed site and surrounding habitat was analyzed for special-status organisms or the presence of suitable habitat, which would support special-status organisms. The findings presented below are the results of fieldwork conducted on March 27, 2017 by Kjeldsen Biological Consulting.

Plants

Field surveys were conducted identifying and recording all species on the site and along the edges of the project site. The open nature of the site, historic use, on-going maintenance practices, and size of the project footprint facilitated our field studies. Typically, blooming examples are required for identification however it is not the only method for identifying the presence of or excluding the possibility of rare plants. Vegetative morphology and dried flower or fruit morphology, which may persist long after the blooming period, may also be used. Skeletal remains from previous season's growth can also be used for identification. Some species do not flower each year or only flower at maturity and therefore must be identified from vegetative characteristics.

Habitat is a key characteristic for consideration of special-status species in the region. Many special-status species are rare in nature because of their specific and often very narrow habitat or environmental requirements. A site evaluation based on habitat or environmental conditions is therefore a reliable method for including or excluding the possibility of special-status species in an area.

The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if a special-status species was observed during the site visit, its presence was recorded. All plants living or remains from previous years growth were identified and are listed in Appendix A.

Animals

Animals and wildlife were identified in the field by their sight, sign, or call. Our field techniques consisted of surveying the area with binoculars and walking the perimeter and transects of the proposed project site. Existing site conditions were used to identify habitat which could potentially support special-status species.

Trees on or near the project site were surveyed to determine whether occupied raptor nests were present within the proximity of the property. Surveys consisted of scanning the trees on the property with binoculars searching for nest or bird activity.

Potential bat breeding habitat was also surveyed on the proposed project site, by looking for roosting habitat and tree crevasses. The residence on the site was not entered. A review from the outside was

made searching for bat entry or access points. All animal life observed was recorded and is presented in Appendix A.

Wetlands

The property was reviewed to determine from existing environmental conditions with a combination of vegetation, soils, and hydrologic information if seasonal wetlands were present. Wetlands were evaluated using the ACOE's three-parameter approach: Vegetation, Hydrology, and Soils.

Waters of the U. S. (WOTUS)

Waters of the U.S. are defined as wetlands, ponds, lakes, creeks, streams, rivers, ephemeral drainages, ditches and seasonally ponded areas (EPA and ACOE rule August 28, 2015). Seasonal stream channels with a definable bed and bank fall within the jurisdiction of (EPA, ACOE and CDFW). "Waters of the State" are determined by the evaluation of continuity, "ordinary high water mark," a definable bed and bank, evidence of or ability to transport sediment and/or a blue line on USGS Quadrangle Map.

The Migratory Bird Treaty Act (MBTA) of 1918 makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The MBTA also prohibits disturbance or harassment of nesting migratory birds at any time during their breeding season.

C. RESULTS / FINDINGS

Our results and findings are based on our fieldwork, literature search, and the background material available for the proposed project. The project site consists of an abandoned residence, entrance off of 6th street, fallow vegetation, landscape plantings, and occasional native tree along the fenced property line.

C.1 Biological Setting

The dominant vegetation on the site consists of non-native “weeds” and escapes. The only native species are Coastal Live oaks around the perimeter on the fence lines. The site is essentially ruderal habitat. The following photos illustrate existing conditions and habitat found on site.

The trees on the site contain habitat for local bird life (nesting/foraging/cover). Construction or tree removal during the nesting season has the potential for impacting local nesting avifauna. In general developed landscape within the city limits does not provide high quality habitat for wildlife.

The topography of the site is flat and drainage is by sheet flow into City of Santa Rosa stormwater system.

Figures 1 to 3 below illustrate the present conditions of the study area.



Figure 1. Typical habitat on project site.



Figure 2. View from the north corner of the site illustrating the existing trees and vegetation.



Figure 3. Abandon residence on the proposed project site.

C.2 Habitat Types Present

The California native Plant Society CNPS Inventory of Rare and Endangered Plants of California associates the rare and endangered species with “Habitat Types.” The Habitat Type for the project site would be considered to be fallow or ruderal grassland. A Manual of California Vegetation Second Edition (Sawyer, 2009) classifies the vegetation on the property as Grassland - Semi-natural Herbaceous Stands with Herbaceous Layer. The section below adapted from Sawyer provides further information of this vegetation alliance.

Grassland Semi-natural Herbaceous Stands with Herbaceous Layer

Semi-Natural Herbaceous Grasslands are a result of historic disturbance and the introduction of non-native grasses and herbs. Sawyer uses the term “Semi-natural Stands” to refer to non-native introduced plants that have become established. Semi-natural stands are those dominated by non-native species that have become naturalized primarily as a result of fire suppression and historic management practices. This includes what can be termed weeds, aliens, exotics or invasive plants in agricultural and nonagricultural settings.

Ruderal Grassland

The ruderal grasslands have been termed California Annual Grassland Alliance. This extensive series is composed of many introduced non-native species with relict native annual species within the stands.

Wildlife Associated with Ruderal Annual Grassland

The grassland field of the study area provides habitat for a variety of birds and small mammals. The vegetation present provides browse for deer as well as cover and foraging habitat for mice and voles. Numerous bird species forage for insects and seeds in these grasslands. Bats will forage for insects over this area and raptors will feed on reptiles and mammals in this type of vegetation cover. In general, however, the habitat found on the site within a developed landscape is not optimum habitat for wildlife.

C.3 Special-Status Species

Tables I and II below list the “target” special-status plants and animals known from the near vicinity of the project site. The tables provide the habitat associated with the taxon, seasonality of plant species and analysis of habitat on the project site.

Plants

A map from the CDFW CNDDDB Rare Find Plate I show known special-status plant species in the proximity of the project. Species known to occur within close proximity shown in Appendix B were considered and reviewed as part of our scoping for the project site and property. These species are shown in the Table below.

The CDFW CNDDDB does not show any records of special-status plant species for the proposed project site. The study area is near the confidence interval for Jepson’s Leptosiphon and Bent-flowered Fiddleneck.

Table I. Analysis of CDFW and USFWS target plant species. Columns are arranged alphabetically by scientific name.

Scientific Name Common Name	Habitat Type or Plant Alliance	Habitat Present on Site	Flower Period	Species Present	Analysis of habitat on project site for presence or absence
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma Alopecurus	Marshes and Swamps	No	May- July	No	Absence of requisite mesic habitat or substrate on project site.
<i>Amsinkia lunularis</i> Bent-flowered Fiddleneck	Cismontane Woodland, Valley and Foothill Grassland, 3 to 500 M	No	March- June	No	Potential for project site. No indications for presence during our fieldwork.
<i>Arctostaphylos</i> <i>stanfordiana</i> ssp. <i>decumbans</i> Rincon Manzanita	Chaparral, Lower Montane Coniferous Forest (openings), Rocky, often Serpentine	No	Feb.- April	No	Absence of requisite habitat and vegetation associates on the site or in the immediate vicinity.
<i>Balsamorhiza</i> <i>macrolepis</i> var. <i>macrolepis</i> Big-scale Balsamroot	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	Yes	March- June	No	Historic use of site precludes presence.
<i>Blennosperma bakeri</i> Sonoma Sunshine	Valley and Foothill Grassland, Vernal Pools	No	March- May	No	Absence of requisite mesic habitat.
<i>Brodiaea leptandra</i> (= <i>B. californica</i> var. <i>leptandra</i>) Narrow-anthered California Brodiaea	Open Cismontane Woodland, Mixed-evergreen Forest or Chaparral Gravelly Soil	No	May- June	No	Absence of typical vegetation associates and soils.
<i>Ceanothus confusus</i> Rincon Ridge Ceanothus	Closed Cone Conifer Forests, Chaparral	No	Feb.- April	No	Absence of typical habitat and vegetation associates.
<i>Downingia pusilla</i> Dwarf Downingia	Wetlands	No	March May	No	Requisite aquatic habitat absent on the site or in the immediate vicinity.

Scientific Name Common Name	Habitat Type or Plant Alliance	Habitat Present on Site	Flower Period	Species Present	Analysis of habitat on project site for presence or absence
<i>Fritillaria liliacea</i> Fragrant Fritillary	Heavy Soil, Open Grasslands, Fields near Coast	No	Feb.- April	No	Absence of edaphic conditions required for presence.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Congested Headed Tarplant	Coastal Grassland	No	April Oct.	No	Absence of requisite habitat.
<i>Lasthenia burkei</i> Burke's Goldfields	Vernal Pools	No	April- June	No	Requisite aquatic habitat absent on the site or in the immediate vicinity.
<i>Legenere limosa</i> Legenere	Vernal Pools	No	April- June	No	Lack of habitat.
<i>Leptosiphon jepsonii</i> Jepson's Leptosiphon	Chaparral, Cismontane Woodland, Valley and Foothill Grassland.	No	April- May	No	Requisite habitat absent on the site or in the immediate vicinity.
<i>Lilium pardalinum</i> ssp. <i>pitkinense</i> Pitken Marsh Lily	Marshes and Swamps, Valley Oak Scrub	No	May- Aug.	No	Absence of requisite mesic habitat.
<i>Limnanthes vinculans</i> Sebastopol Meadowfoam	Meadows & Seeps, Valley & Foothill Grassland Vernal Pools	No	April- May	No	Requisite mesic habitat absent on the site or in the immediate vicinity.
<i>Microseris paludosa</i> Marsh Microseris	Closed Cone Conifer Forests, Cismontane Woodland, Valley and Foothill Grassland	No	April- June	No	Absence of typical habitat and vegetation associates.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i> Baker's Navarretia	Meadows and Seeps Cismontane Woodland, Valley and Foothill Grassland, Vernal Pools	No	May- July	No	Absence of typical habitat and vegetation associates.

Scientific Name Common Name	Habitat Type or Plant Alliance	Habitat Present on Site	Flower Period	Species Present	Analysis of habitat on project site for presence or absence
<i>Trifolium amoenum</i> , Two-fork Clover	Coastal Bluff Scrub, Valley and Foothill Grassland	No	April- June	No	Historical use of the site precludes presence.
<i>Trifolium hydropyllum</i> Saline Clover	Marshes and Swamps Grassland	No	April- June	No	Absence of mesic habitat required for presence.
<i>Triquetrella californica</i> Coastal Triquetrella Moss	Endemic to Coastal California < 30 miles. Thin soil on outcrops in Scrub or Grassland	No	NA	No	Lack of appropriate habitat for this moss.

The project area does not contain habitat which would support any of the local special-status plant species or those in the table above. The historic use, routine maintenance, absence of serpentine or serpentinite soils, vernal pools, lack of wetlands, and vegetation associates reasonably precludes the presence of special-status species within the proposed project area.

Based on existing habitat, it is unlikely that the proposed project would have a substantial impact or result in any take of special-status plant species listed by CDFW and/or USFWS.

Animals

A map from the CDFW CNDDDB Rare Find Plate II shows known special-status animal species in the proximity of the project. Species known to occur within close proximity and State and Federal Listed species shown in Appendix B were considered and reviewed as part of our scoping for the project site and property. These species are shown in the Table below.

The CDFW CNDDDB does not show any records of special-status species of animals for the study site.

Table II. Analysis of CDFW and USFWS target animal species. Columns are arranged alphabetically by scientific name.

Scientific Name Common Name	Habitat	Potential for Project Site	Obs. on or Near Project Site	Analysis of habitat on project site for presence or absence
<i>Ambystoma californiense</i> California Tiger Salamander	Ephemeral Breeding pools with Upland oak Woodlands for estivation	No	No	Not within current range.

Scientific Name Common Name	Habitat	Potential for Project Site	Obs. on or Near Project Site	Analysis of habitat on project site for presence or absence
<i>Andrena blennospermatis</i> Blennosperma Vernal Pool Andrenid Bee	Vernal pools with Blennosperma	No	No	Lack of requisite habitat and associated plants.
<i>Elanus leucurus</i> White-tailed Kite	Nests in tall trees near water	No	No	Requisite habitat absent.
<i>Emys marmorata</i> Western Pond Turtle	Slow moving water or ponds	No	No	Property does not contain habitat to support species.
<i>Linderella occidentalis</i> California Fairy Shrimp Linderiella	Vernal Pools	No	No	Lack of suitable habitat.
<i>Rana draytonii</i> California Red- legged Frog	Creeks, Rivers, permanent flowing water	No	No	No aquatic habitat on the project site.
<i>Taxidea taxus</i> American Badger	Hillsides with suitable food sources	No	No	Lack of suitable habitat.
<i>Tryonia imitator</i> Mimic Tryonia (California Brackishwater Snail)	Coastal Lagoons Salt Marshes, Estuaries with Permanent Water	No	No	Lack of habitat.

The project area does not contain habitat which would support any of the local special-status animal species or those in the table above. The historic use, routine maintenance, absence of vernal pools, lack of wetlands, surrounding land use and vegetation associates reasonably precludes the presence of special-status species within the proposed project area.

Based on existing habitat we conclude that, it is unlikely that the proposed project would have a substantial impact or result in any take of special-status animal or wildlife species listed by CDFW and/or USFWS.

C.4 Discussion of Sensitive Habitat Types

• Sensitive Habitat Types

The sensitive habitat types identified by the CDFW CNDDDB for the quadrangle and surrounding quadrangles are the following; Coastal and Valley Freshwater Marsh, Northern Hardpan Vernal Pool Northern Vernal Pool, and Valley Needle Grass Grassland. The above referenced sensitive habitat types are not present on the project site.

- **Critical Habitat**

The proposed project area is not located within the designated critical habitat identified by the US Fish and Wildlife Service (USFWS) for the Sonoma California Tiger Salamander or the California Red-legged Frog.

- **Native Grassland**

Experts conclude that native grasslands in California are among the most endangered ecosystem in the United States. This is due to historical land use, the introduction and naturalization of non-native species of grasses and herbs and introduced disease. It is estimated that less than 1% of our state's original grasslands remain. Grasslands within the footprint of the project are not native grasslands. No native grasslands will be impacted by the proposed project.

- **Riparian Vegetation**

Riparian habitat and vegetation are by all standards considered sensitive. Riparian Vegetation functions to control water temperature, regulate nutrient supply (biofilters), bank stabilization, rate of runoff, wildlife habitat (shelter and food), release of allochthonous material, release of woody debris which functions as habitat and slow nutrient release, and protection for aquatic organisms. Riparian vegetation is also a moderator of water temperature has a cascade effect in that it relates to oxygen availability. Riparian vegetation exists downslope from the proposed project. No riparian vegetation associated with the property or project site.

- **Seasonal Wetland**

Seasonal wetland generally denotes areas where the soil is seasonally saturated and/or inundated by fresh water for a significant portion of the wet season, and then seasonally dries during the dry season. To be classified as "Wetland," the duration of saturation and/or inundation must be long enough to cause the soils and vegetation to become altered and adapted to the wetland conditions. Varying degrees of pooling or ponding, and saturation will produce different edaphic and vegetative responses. These soil and vegetative clues, as well as hydrological features, are used to define the wetland type. Seasonal wetlands typically take the form of shallow depressions and swales that may be intermixed with a variety of upland habitat types. Seasonal wetlands fall under the jurisdiction of the U.S. Army Corps of Engineers. There are no seasonal wetlands within the footprint of the proposed project.

- **Vernal Pools**

Vernal pools are a type of seasonal wetland distinct for California and the western US. Typically they are associated with seasonal rainfall or "Mediterranean climate" and have a distinct flora and fauna, an impermeable or slowly permeable substrate and contain standing water for a portion of the year. They are characterized by a variable aquatic and dry regime with standing water during the spring plant growth regime. They have a high degree of endemism of flora and fauna. The project is not associated with any vernal pools.

- **"Waters of the State"**

The project footprint drains by sheet flow into adjacent storm water drains. There are no "waters of the state" within the footprint of the proposed project.

• **Migratory Corridors or Habitat Links**

Wildlife Corridors are natural areas interspersed within developed areas that are important for animal movement, increasing genetic variation in plant and animal populations, reduction of population fluctuations, retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also preserve watershed connectivity. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that wildlife corridors should be a minimum of 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape.

Criteria for evaluating corridors – Corridors are considered suitable for wildlife movements if they provide avenues along which:

1. Wide-ranging animals can travel, migrate and meet mates.
2. Plants can propagate.
3. Genetic interchange can occur.
4. Populations can move in response to environmental changes and natural disasters.
5. Individuals can recolonize habitats from which populations have been locally extirpated.

These five functions were used to evaluate potential wildlife corridors on the property and if the project would interrupt any corridors. The project will not negatively impact any migratory corridor or interrupt habitat linkage.

• **Trees**

Native and landscape trees will be removed by the proposed project.

• **Nesting or Breeding Habitat, or Unique Plant Distributions or Populations**

We found no indications of nesting raptors on the property or in the near vicinity of the project. We did not observe any nests, whitewash or nest droppings, associated with the project site. No bird rookeries or active nests were observed during our survey.

The Migratory Bird Treaty Act (MBTA) of 1918 makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The MBTA also prohibits disturbance or harassment of nesting migratory birds at any time during their breeding season. No raptor nests or whitewash from nests near the project site were observed.

• **Bat Roosting Habitat**

Foliage and bark with small cavities in any tree could provide suitable temporary habitat for solitary tree-roosting bat species. Trees on the project site were reviewed for potential structure for roosting bats. Trees on the site are healthy and do not support potential roosting habitat for bats. The residence on the site was not entered. A review from the outside did not show any evidence of bat entry or access points. There is no significant bat roosting habitat within the footprint of the project site.

D. POTENTIAL BIOLOGICAL IMPACTS

The project's effect to onsite or regional biological resources is considered to be significant if the project results in:

- Alteration of unique characteristics of the area, such as sensitive plant communities and habitats (i.e. serpentine habitat, wetlands, riparian habitat);
- Adverse impacts to special-status plant and animal species;
- Adverse impacts to important or vulnerable resources as determined by scientific opinion or resource agency concerns (i.e. sensitive biotic communities, special-status habitats; e.g. wetlands);
- Loss of critical breeding, feeding or roosting habitat; or
- Interference with migratory routes or habitat connectivity.

D.1 Analysis of Potential Impacts to Special-status Species

The habitat impacted by the proposed project is such that there is little reason to expect impacts to special-status species. We found no evidence for the presence of any special-status species on or in the vicinity of the proposed project. The habitat present reasonably precludes presence on or associated with the proposed project.

The CNDDDB five-mile search does not show any records of special-status species on the property. The following species are addressed based on records of presence in close proximity to the site.

Bent-flowered Fiddleneck (*Amsinkia lunularis*) is a herbaceous species associated with woodlands and valley and foothill grasslands. Historic use of the property and the surrounding environment precludes potential for presence of this species on the project site.

Jepson's Leptosiphon (*Leptosiphon jepsonii*) is a herbaceous species associated with chaparral, woodlands, and valley and foothill grasslands. Historic use of the property and the surrounding environment precludes potential for presence of this species on the project site.

Obscure Bumble Bee (*Bombus caliginosus*) is a California Species of Special Concern which inhabits open grassy coastal prairies and Coast Range meadows. Historic use of the site reduces the potential of nesting for this species on the project site.

Western Pond Turtle (*Emys marmorata*) Is found throughout California and is listed by the State as a Species of Concern. It does not have Federal status. Suitable habitat consists of any permanent or nearly permanent body of water or slow moving stream with suitable refuge, basking sites and nesting sites. Refuge sites include partially submerged logs or rocks or mats of floating vegetation. Basking sites can be partially submerged rocks or logs, as well as shallow-sloping banks with little or no cover. Nesting occurs in sandy banks or in soils up to 100 meters away from aquatic habitat. There are two known occurrences within Santa Rosa Creek, close to the property. The project site is removed from Santa Rosa Creek by streets with heavy traffic that make it unlikely that any turtles would use this area for upland estivation.

There is no reason to expect any negative impacts to special-status species or locally significant biological resources impacted by the proposed project, provided Best Management Practices for Erosion and Sediment Control are followed.

D.2 Analysis of Potential Impacts on Sensitive Habitat

The sensitive habitat types identified in the CDFW CNDDDB and known for the region are not present within the proposed project site. The project site does not support any US ACOE jurisdictional wetlands.

D.3 Potential Off-site Impacts

The project has the potential to impact aquatic species downstream by sediment loss. The proposed project must follow Best Management Practices for Erosion and Sediment Control to insure that there is no increased sediment or erosion from the site during construction. Any potential off-site impacts will be less than significant provided Best Management Practices are implemented and followed.

D.4 Potential Cumulative Impacts

Cumulative biological effects are the result of incremental losses of biological resources within a region. Removal of vegetation can reduce the abundance and diversity of species in an area. Significant cumulative effects may be expected where there is a substantial reduction in required habitat for local or regional species or the project will result in substantial interference with the movement and or reproduction of resident or migratory species. Factors that were considered in the evaluation of cumulative biological impacts include:

1. Any known rare, threatened, or endangered species or sensitive species that may be directly or indirectly affected by project activities or on the habitat of the species.
2. Any significant, known wildlife or fisheries resource concerns within the immediate project area and the biological assessment area (e.g. loss of structural elements, and significant natural areas).
3. Adequacy of standard setbacks for protection of aquatic and near-water habitat conditions.

On a local or regional scale it is anticipated that any cumulative effects will be negligible or unquantifiable. The project footprint will not significantly contribute to habitat loss or habitat fragmentation. There is no reason to expect any species exclusion, isolation or extinction. There are no potential significant impacts to migratory corridors or wildlife nursery sites associated with the proposed project.

D.5 State and Federal Permits

Our findings show that the proposed project will be in compliance with the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA). No State or Federal biological permits are required for the project as proposed.

E. RECOMMENDATIONS

The proposed removal of trees on the project site could result in directly destroying nests, eggs, and immature birds. The following recommendations will reduce impacts by the proposed project to a less than significant level

- For tree removal occurring during the breeding season (March 1 through August 31), a qualified biologist shall conduct pre-construction surveys of all potential nesting habitats.
- If active bird nests are found during preconstruction surveys 1) a 500-foot no-disturbance buffer will be created around active raptor nests during the breeding season or until it is determined that all young have fledged, and 2) a 250-foot buffer zone will be created around the nests of other special status birds and all other birds that are protected by California Fish and Game Code 3503.
- If pre-construction surveys indicate that nests are inactive or potential habitat is unoccupied during the tree removal period, no further mitigation is required. Shrubs and trees that have been determined to be unoccupied may be removed.
- If vegetation removal activities are delayed or suspended for more than two weeks after the preconstruction survey (during the breeding season (March 1 through August 31), the areas shall be resurveyed.

We recommend that the Landscape Planting Plan incorporate as many local native species as possible.

Native trees recommended for consideration by the Landscape Planting Plan are:

Valley Oak (*Quercus lobata*)

Live Oak (*Quercus agrifolia*)

F. SUMMARY

This biological review is provided as background information necessary for evaluating potential impacts on local biological resources by the proposed project.

Our survey did not identify any evidence of or habitat for special-status species known for the Quadrangle, surrounding Quadrangles, or the region within the proposed project site. The proposed project site does not contain vegetation associates, habitat or edaphic conditions, which would support special-status species.

We find that it is unlikely that the project will have a substantial adverse effect, either directly or through habitat modifications, on any threatened or endangered plant or animal species listed by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

The habitat impacted by the project is such that there is no need for seasonal floristic surveys or seasonal wildlife surveys.

The proposed project area is not located within the designated critical habitat identified by the US Fish and Wildlife Service for the Sonoma California Tiger Salamander or the California Red-legged Frog.

We find that the proposed project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

We find that the proposed project, with the implementation of Best Management Practices, will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

For tree removal occurring during the avian breeding season (March 1 through August 31), a qualified biologist shall conduct pre-construction surveys of all potential nesting habitats.

Should you have any questions, please do not hesitate to contact us at: Telephone (707) 544-3091, Fax (707) 575-8030 Email kjeldsen@sonic.net

Kjeldsen Biological Consulting

Note: This is a technical document and not a legal document. Findings made in this document regarding the potential impacts to State and Federal listed species are made only in reference to proposed project referenced in this report. By submitting this report the Clients hereby waive any and all complaints or causes of action, known or unknown, which exist now or may exist at any time in the future, against Consultant and hold Consultant harmless for any such claims or causes of action including for all work performed under this agreement and for any work provided to Clients collectively or to any one of them without limitation.

G. LITERATURE CITED / REFERENCES

G.1 Literature Cited / References

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G.2 Names and Qualifications of Field Investigators.

Chris K. Kjeldsen, Ph.D., Botany, Oregon State University, Corvallis, Oregon. He has over forty years of professional experience in the study of California flora. He was a member of the Sonoma County Planning Commission and Board of Zoning (1972 to 1976). He has over thirty years of experience in managing and conducting environmental projects involving impact assessment and preparation of compliance documents, Biological Assessments, DFW Habitat Assessments, DFW SB 34 Mitigation projects, ACOE Mitigation projects and State Parks and Recreation Biological Resource Studies. Experience includes conducting special-status species surveys, jurisdictional wetland delineations, general biological surveys, 404 and 1600 permitting, and consulting on various projects. A full resume is available upon request. He has a valid DFW collecting permit.

Daniel T. Kjeldsen, B. S., Natural Resource Management, California Polytechnic State University, San Luis Obispo, California. He spent 1994 to 1996 in the Peace Corps managing natural resources in Honduras, Central America. His work for the Peace Corps in Central America focused on watershed inventory, mapping and the development and implementation of a protection plan. He has over fifteen years of experience in conducting Biological Assessments, DFW Habitat Assessments, ACOE wetland delineations, wetland rehabilitation, and development of and implementation of mitigation projects and mitigation monitoring. He has received 3.2 continuing education units MCLE 27 hours in Determining Federal Wetlands Jurisdiction from the University of California Berkeley Extension. Attended Wildlife Society Workshop Falconiformes of Northern California Natural History and Management California Tiger Salamander 2003; Natural History and Management of Bats Symposium 2005: Western Pond Turtle Workshop 2007; Western Section Bat Workshop 2011, and Laguna Foundation & The Wildlife Project Rare Pond Species Survey Techniques 2009. A full resume is available upon request.

ATTACHMENTS

PLATES

Plate I.	Site and Location Map
Plate II.	CDFW CNDDDB Five-Mile Search
Plate III.	Aerial Photo / Survey Area
Plate IV.	U.S. Fish and Wildlife Critical Habitat Map

APPENDIX A. **Flora and Fauna Observed**

APPENDIX B. **CDFW CNDDDB Rare Find 5 State and Federal Listed Species
for the Quadrangle and Surrounding Quadrangles**

**U.S. Fish & Wildlife Service IPaC Trust Resources Federal
Endangered and Threatened Species that Occur in or may be
Affected by the Project**

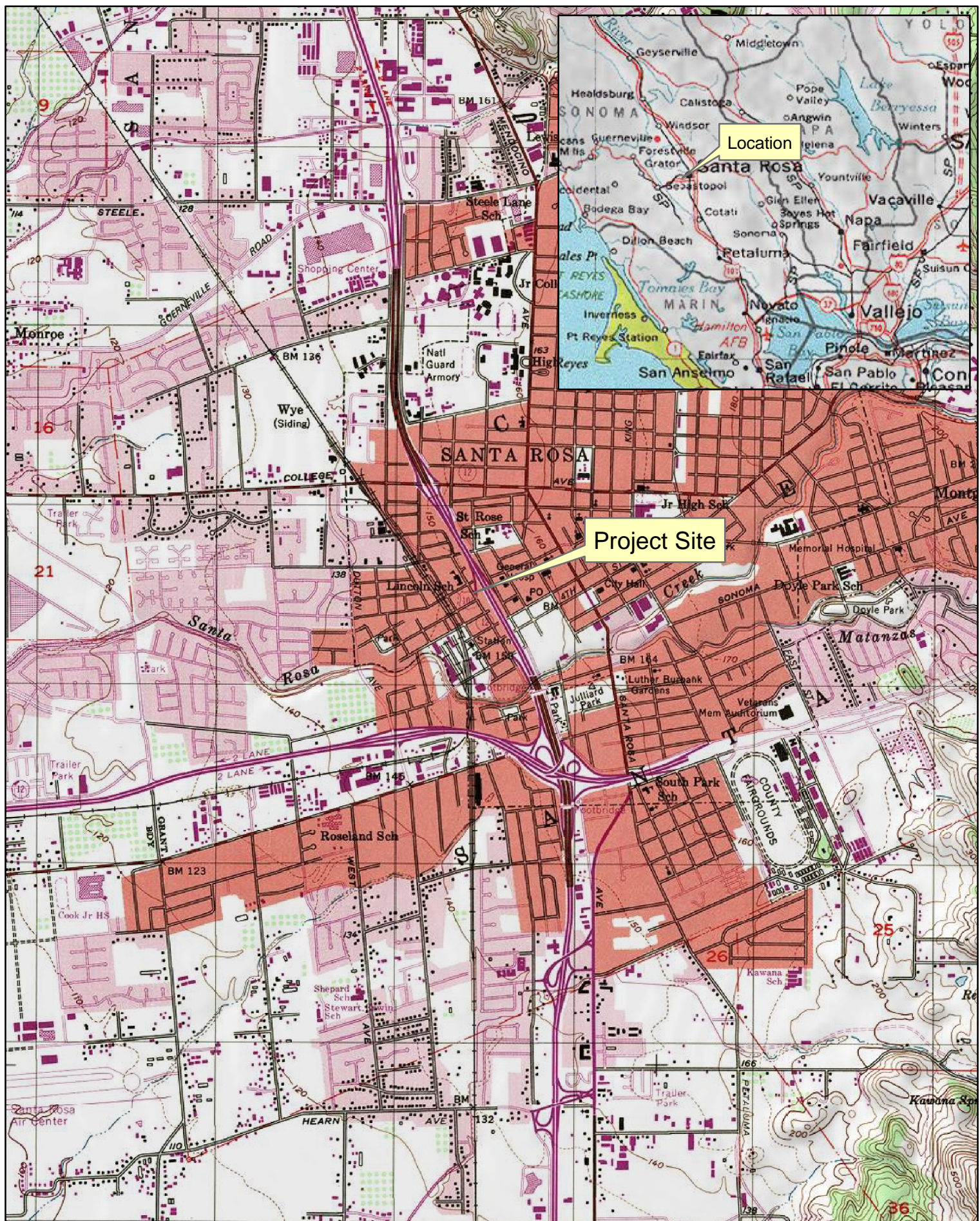


Plate I. Location and Site Map

(Santa Rosa USGS Quadrangle)

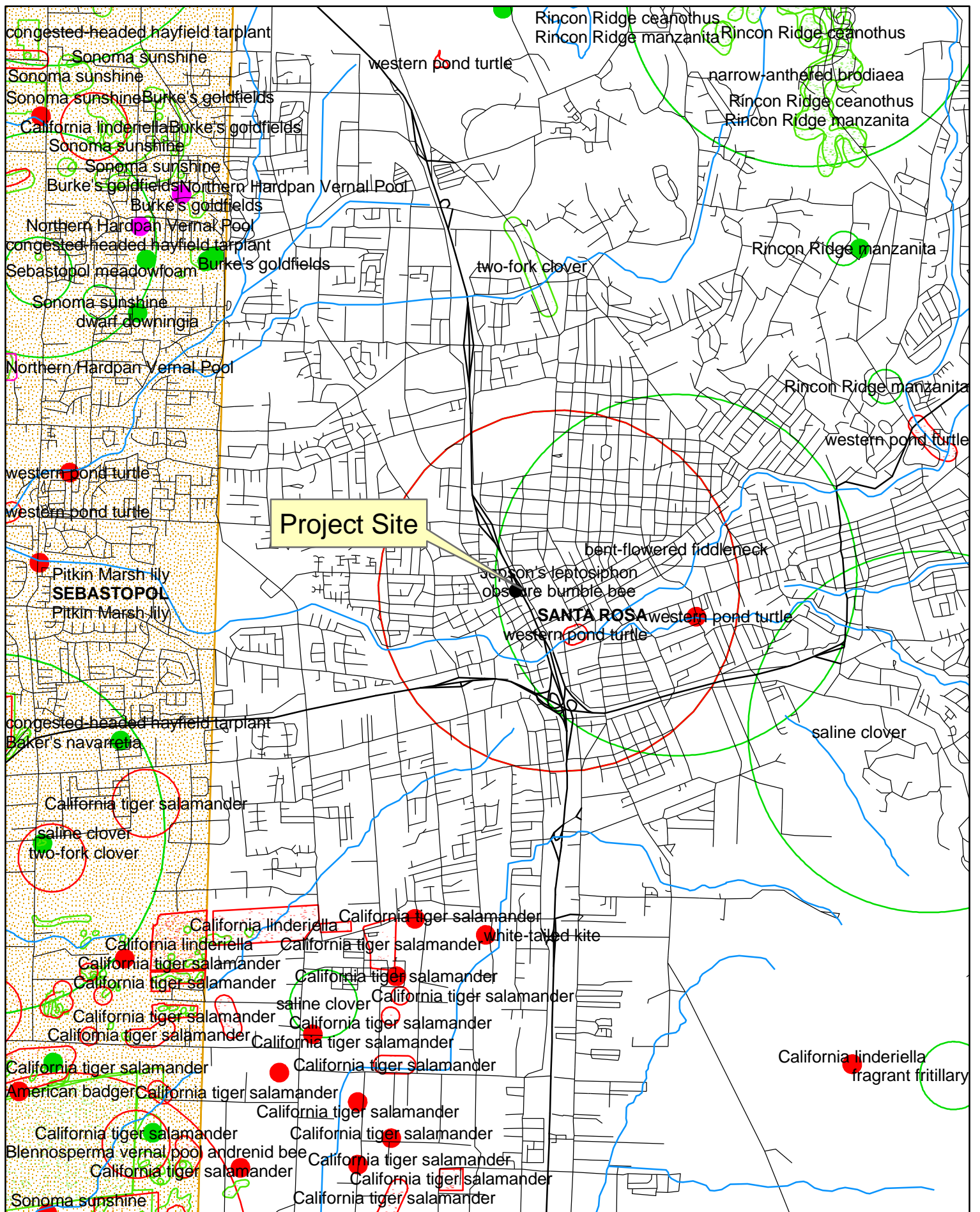


Plate II. CDFW CNDDDB Rare Find Data

(Data Date March 2017)



Plate III. Aerial Photo / Survey Area

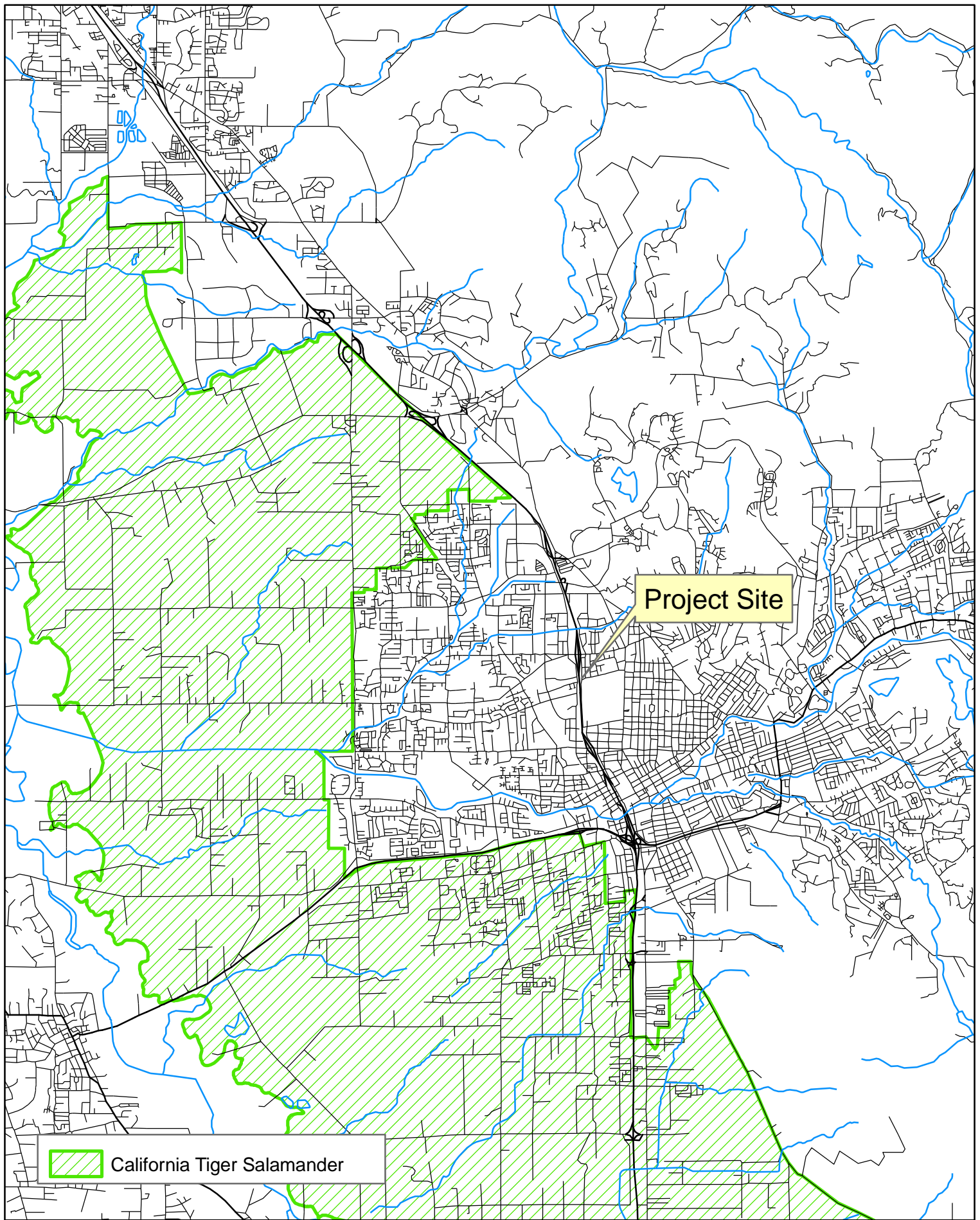


Plate IV. U.S. FWS Critical Habitat Map

APPENDIX A

FLORA AND FAUNA

Plant Species Observed on or in the Vicinity of the Project

The nomenclature for the list of plants found on the project study areas and the immediate vicinity follows: B.G. Baldwin, D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosati, and D.H. Wilkens, editors, 2012 - for the vascular plants.

Habitat type indicates the general associated occurrence of the taxon on the project site or in nature.

Abundance refers to the relative number of individuals on the project site or in the region.

MAJOR PLANT GROUP

Family

<u>Genus</u>	<u>Habitat Type</u>	<u>Abundance</u>
<u>Common Name</u>		

NCN = No Common Name, * = Non-native, @ = Voucher Specimen

MOSSES

MINACEAE

<i>Funaria hygrometrica</i> Hedw.	Ruderal, Open Areas	Common
NCN		

VASCULAR PLANTS DIVISION CONIFEROPHYTA--GYMNOSPERMS

PINACEAE

* <i>Pinus radiata</i> D. Don	Domestic Introduction	Occasional
Monterey Pine		

TAXODIACEAE

<i>Sequoia sempervirens</i> (D. Don) Endl.	Planted	One
Redwood		

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS

CLASS--DICOTYLEDONAE- TREES

EUDICOTS

FAGACEAE Oak Family

<i>Quercus agrifolia</i> Nee	Woodlands	Common
Live Oak		
<i>Quercus kelloggii</i> Newb.	Woodlands	Common
Black Oak		

<u>MAJOR PLANT GROUP</u>		
Family		
Genus	Habitat Type	Abundance
<u>Common Name</u>		

NCN = No Common Name, * = Non-native, @ = Voucher Specimen

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS

CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES

EUDICOTS

ASTERACEAE (Compositae) Sunflower Family

<i>Baccharis pilularis</i> deCandolle	Woodlands, Grasslands	Common
Coyote Brush		

ROSACEAE Rose Family

* <i>Rubus armeniacus</i> Focke	Ruderal	Common
Himalayan Blackberry		

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS

CLASS--DICOTYLEDONAE-HERBS

EUDICOTS

APIACEAE (Umbelliferae) Carrot Family

* <i>Dacus carota</i> L.	Ruderal Grasslands	Occasional
Wild Carrot, Queen Anne's Lace		

* <i>Foeniculum vulgare</i> Mill.	Ruderal	Occasional
Fennel		

ASTERACEAE (Compositae) Sunflower Family

* <i>Anthemis cotula</i> L.	Ruderal	Occasional
Mayweed, Stinkweed, Dog-fennel		

* <i>Calendula arvensis</i> L.	Ruderal	Occasional
Field Marigold		

* <i>Cichorium intybus</i> L.	Ruderal	Occasional
Chicory		

* <i>Helminthotheca echioides</i> (L.) Holub	Ruderal	Common
Ox-tongue (= <i>Picris echioides</i>)		

* <i>Hypochaeris glabra</i> L.	Ruderal	Common
Cat's Ear		

* <i>Lactuca serriola</i> L.	Ruderal	Occasional
Prickly Lettuce		

* <i>Senecio vulgaris</i> L.	Ruderal	Occasional
NCN		

* <i>Sonchus asper</i> (L.) Hill var. <i>asper</i>	Ruderal	Common
Prickly Sow Thistle		

BRASSICACEAE Mustard Family

* <i>Brassica rapa</i> L.	Grasslands, Ruderal	Common
Field Mustard		

* <i>Capsella bursa-pastoris</i> L.	Ruderal	Common
Shepherd's Purse		

<u>MAJOR PLANT GROUP</u>		
Family		
Genus	Habitat Type	Abundance
Common Name		
NCN = No Common Name, * = Non-native, @= Voucher Specimen		
* <i>Raphanus sativus</i> L. Wild Radish	Ruderal	Common
CARYOPHYLLACEAE Pink Family		
* <i>Cerastium arvense</i> L. subsp. <i>strictum</i> Spury, Stickey Sand-Spury	Ruderal	Common
* <i>Stellaria media</i> (L.) Vill. Chickweed	Ruderal	Common
DIPSACACEAE Teasel Family		
* <i>Dipsacus sativus</i> L. Fuller's Teasel	Ruderal	Occasional
FABACEAE (Leguminosae) Legume Family		
* <i>Medicago polymorpha</i> L. Bur Clover	Ruderal, Grasslands	Common
* <i>Trifolium hirtum</i> All. Rose Clover	Ruderal, Grasslands	Common
* <i>Vicia sativa</i> L. subsp. <i>nigra</i> Narrow Leaved-vetch	Grasslands, Ruderal	Common
* <i>Vicia villosa</i> Roth. subsp. <i>varia</i> Hairy Vetch, Winter Vetch, Lana Vetch	Ruderal, Grasslands	Common
GERANIACEAE Geranium Family		
* <i>Erodium botrys</i> (Cav.) Bertol. Broadleaf Filaree, Long-beaked Filaree	Ruderal, Grasslands	Common
* <i>Geranium dissectum</i> L. Common Geranium	Ruderal, Grasslands	Common
* <i>Geranium molle</i> L. Dove's Foot Geranium	Ruderal, Grasslands	Common
MALVACEAE Mallow Family		
* <i>Malva parviflora</i> L. Cheeseweed, Mallow	Ruderal, Grasslands	Occasional
PLANTAGINACEAE Plantain Family		
* <i>Plantago lanceolata</i> L. English Plantain	Ruderal, Grasslands	Common
POLYGONACEAE Buckwheat Family		
* <i>Rumex crispus</i> L. Rumex	Ruderal, Grasslands	Occasional
RANUNCULACEAE Buttercup Family		
* <i>Ranunculus muricatus</i> L. Pickle-fruited Buttercup	Grasslands, Ruderal	Occasional

MAJOR PLANT GROUP**Family****Genus****Habitat Type****Abundance****Common Name**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS**CLASS--MONOCOTYLEDONAE-GRASSES****POACEAE Grass Family**

* <i>Avena barbata</i> Link.	Grasslands	Common
Slender Wild Oat		
* <i>Bromus diandrus</i> Roth	Ruderal, Grasslands	Common
Ripgut Grass		
* <i>Cynosurus echinatus</i> L.	Ruderal	Common
Hedgehog, Dogtail		
* <i>Festuca bromoides</i> L.	Ruderal, Moist Flats become Dry	Common
Six-weeks Fescue (= <i>Vulpia bromoides</i>)		
<i>Festuca microstachys</i> Nutt.	Grasslands, Ruderal	Common
NCN (= <i>Vulpia microstachys</i>)		
* <i>Festuca myuros</i> L.	Grasslands	Common
Rattail Fescue, Zorro Annual Fescue (= <i>Vulpia myuros</i>)		
* <i>Festuca perennis</i> (L.) Columbus & Sm.	Grasslands	Common
Perennial Rye Grass (= <i>Lolium multiflorum</i> , <i>L. perenne</i>)		

Fauna Species Observed in the Vicinity of the Project Site

The nomenclature for the animals found on the project site and in the immediate vicinity follows: Mc Ginnis–1984, for the fresh water fishes; Stebbins-1985, for the reptiles and amphibians; Udvardy and Farrand–1998, for the birds; and Jameson and Peeters -1988 for the mammals.

AMPHIBIA AND REPTILIA

ORDER

Common Name	Genus	Observed
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SQUAMATA

Western Fence Lizard	<i>Sceloporus occidentalis</i>	X
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MAMMALS

ORDER

Common Name	Genus	Observed
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RODENTIA

Pocket Gopher	<i>Thomomys bottae</i>	Sight
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APPENDIX B.

**CDFW CNDDDB Rare Find 5 State and Federal Listed Species for the
Quadrangle and Surrounding Quadrangles**

**U.S. Fish & Wildlife Service IPaC Trust Resources
Federal Endangered and Threatened Species that Occur in or may be
Affected by the Project**



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Calistoga (3812255) OR Cotati (3812236) OR Glen Ellen (3812235) OR Healdsburg (3812257) OR Kenwood (3812245) OR Mark West Springs (3812256) OR Santa Rosa (3812246) OR Sebastopol (3812247) OR Two Rock (3812237))
 AND Habitat IS (Valley & foothill grassland)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G5T1	S1	1B.2
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G2G3	S2S3	1B.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Astragalus claranus</i> Clara Hunt's milk-vetch	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Blennosperma bakeri</i> Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
<i>Brodiaea leptandra</i> narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Calystegia collina</i> ssp. <i>oxyphylla</i> Mt. Saint Helena morning-glory	PDCON04032	None	None	G4T3	S3	4.2
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
<i>Clarkia imbricata</i> Vine Hill clarkia	PDONA050K0	Endangered	Endangered	G1	S1	1B.1
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia capitata ssp. tomentosa</i> woolly-headed gilia	PDPLM040B9	None	None	G5T1	S1	1B.1
<i>Hemizonia congesta ssp. congesta</i> congested-headed hayfield tarplant	PDAST4R065	None	None	G5T1T2	S1S2	1B.2
<i>Horkelia tenuiloba</i> thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
<i>Layia septentrionalis</i> Colusa layia	PDAST5N0F0	None	None	G2	S2	1B.2
<i>Limnanthes vincularis</i> Sebastopol meadowfoam	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
<i>Plagiobothrys strictus</i> Calistoga popcornflower	PDBOR0V120	Endangered	Threatened	G1	S1	1B.1
<i>Poa napensis</i> Napa blue grass	PMPOA4Z1R0	Endangered	Endangered	G1	S1	1B.1
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Trifolium amoenum</i> two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Record Count: 33

Query Summary:

Quad **IS** (Calistoga (3812255) **OR** Cotati (3812236) **OR** Glen Ellen (3812235) **OR** Healdsburg (3812257) **OR** Kenwood (3812245) **OR** Mark West Springs (3812256) **OR** Santa Rosa (3812246) **OR** Sebastopol (3812247) **OR** Two Rock (3812237))
AND Habitat **IS** (Valley & foothill grassland)

CNDDDB Element Query Results

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank	Habitats
<i>Allium peninsulare</i> var. <i>franciscanum</i>	Franciscan onion	None	None	G5T1	S1	Cismontane woodland, Ultramafic, Valley & foothill grassland
<i>Ambystoma californiense</i>	California tiger salamander	Threatened	Threatened	G2G3	S2S3	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
<i>Ammodramus savannarum</i>	grasshopper sparrow	None	None	G5	S3	Valley & foothill grassland
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	None	None	G2G3	S2S3	Cismontane woodland, Coastal bluff scrub, Valley & foothill grassland
<i>Antrozous pallidus</i>	pallid bat	None	None	G5	S3	Valley & foothill grassland
<i>Aquila chrysaetos</i>	golden eagle	None	None	G5	S3	Valley & foothill grassland
<i>Astragalus claranus</i>	Clara Hunt's milk-vetch	Endangered	Threatened	G1	S1	Chaparral, Cismontane woodland, Valley & foothill grassland
<i>Athene cunicularia</i>	burrowing owl	None	None	G4	S3	Coastal prairie, Coastal scrub, Great Basin grassland, Valley & foothill grassland
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	None	None	G2	S2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
<i>Blennosperma bakeri</i>	Sonoma sunshine	Endangered	Endangered	G1	S1	Valley & foothill grassland, Vernal pool, Wetland

<i>Brodiaea leptandra</i>	narrow-anthered brodiaea	None	None	G3?	S3?	Broadleaved upland forest, Chaparral, Valley & foothill grassland
<i>Buteo regalis</i>	ferruginous hawk	None	None	G4	S3S4	Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
<i>Calystegia collina</i> ssp. <i>oxyphylla</i>	Mt. Saint Helena morning-glory	None	None	G4T3	S3	Chaparral, Lower montane coniferous forest, Ultramafic, Valley & foothill grassland
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	None	None	G3T2	S2	Chaparral, Coastal prairie, Marsh & swamp, Meadow & seep, Valley & foothill grassland
<i>Clarkia imbricata</i>	Vine Hill clarkia	Endangered	Endangered	G1	S1	Chaparral, Valley & foothill grassland
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	G3G4	S2	Broadleaved upland forest, Chaparral, Valley & foothill grassland
<i>Downingia pusilla</i>	dwarf downingia	None	None	GU	S2	Valley & foothill grassland, Vernal pool, Wetland
<i>Elanus leucurus</i>	white-tailed kite	None	None	G5	S3S4	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
<i>Fritillaria liliacea</i>	fragrant fritillary	None	None	G2	S2	Cismontane woodland, Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	woolly-headed gilia	None	None	G5T1	S1	Coastal bluff scrub, Ultramafic, Valley & foothill grassland
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	congested-headed hayfield tarplant	None	None	G5T1T2	S1S2	Valley & foothill grassland
<i>Horkelia tenuiloba</i>	thin-lobed horkelia	None	None	G2	S2	Broadleaved upland forest, Chaparral, Valley & foothill grassland
<i>Layia septentrionalis</i>	Colusa layia	None	None	G2	S2	Chaparral, Cismontane woodland, Ultramafic,

						Valley & foothill grassland
Limnanthes vinculans	Sebastopol meadowfoam	Endangered	Endangered	G1	S1	Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Microseris paludosa	marsh microseris	None	None	G2	S2	Cismontane woodland, Closed-cone coniferous forest, Coastal scrub, Valley & foothill grassland
Navarretia leucocephala ssp. bakeri	Baker's navarretia	None	None	G4T2	S2	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Plagiobothrys strictus	Calistoga popcornflower	Endangered	Threatened	G1	S1	Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Poa napensis	Napa blue grass	Endangered	Endangered	G1	S1	Meadow & seep, Valley & foothill grassland, Wetland
Puccinellia simplex	California alkali grass	None	None	G3	S2	Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool
Taxidea taxus	American badger	None	None	G5	S3	, Valley & foothill grassland
Trifolium amoenum	two-fork clover	Endangered	None	G1	S1	Coastal bluff scrub, Ultramafic, Valley & foothill grassland
Trifolium hydrophilum	saline clover	None	None	G2	S2	Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	None	None	G3	S3.1	Valley & foothill grassland

IPaC**U.S. Fish & Wildlife Service**

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

Sonoma 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 are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

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.

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

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/2076	Endangered

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened

Crustaceans

NAME	STATUS
California Freshwater Shrimp <i>Syncaris pacifica</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7903	Endangered

Fishes

NAME	STATUS
Steelhead <i>Oncorhynchus</i> (=Salmo) mykiss There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1007	Threatened

Flowering Plants

NAME	STATUS
Burke's Goldfields <i>Lasthenia burkei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4338	Endangered
Clara Hunt's Milk-vetch <i>Astragalus clarianus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3300	Endangered
Sebastopol Meadowfoam <i>Limnanthes vinculans</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/404	Endangered
Showy Indian Clover <i>Trifolium amoenum</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6459	Endangered
Sonoma Sunshine <i>Blennosperma bakeri</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1260	Endangered
White Sedge <i>Carex albida</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3063	Endangered

Insects

NAME	STATUS
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3394	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 Act².

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service

³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#). To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Bald Eagle <i>Haliaeetus leucocephalus</i> https://ecos.fws.gov/ecp/species/1626	Year-round
Bell's Sparrow <i>Amphispiza belli</i> https://ecos.fws.gov/ecp/species/9303	Year-round
Burrowing Owl <i>Athene cunicularia</i> https://ecos.fws.gov/ecp/species/9737	Year-round
Fox Sparrow <i>Passerella iliaca</i>	Wintering
Least Bittern <i>Ixobrychus exilis</i> https://ecos.fws.gov/ecp/species/6175	Breeding
Lesser Yellowlegs <i>Tringa flavipes</i> https://ecos.fws.gov/ecp/species/9679	Wintering

Lewis's Woodpecker	<i>Melanerpes lewis</i> https://ecos.fws.gov/ecp/species/9408	Wintering
Long-billed Curlew	<i>Numenius americanus</i> https://ecos.fws.gov/ecp/species/5511	Wintering
Nuttall's Woodpecker	<i>Picoides nuttallii</i> https://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse	<i>Baeolophus inornatus</i> https://ecos.fws.gov/ecp/species/9656	Year-round
Olive-sided Flycatcher	<i>Contopus cooperi</i> https://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon	<i>Falco peregrinus</i> https://ecos.fws.gov/ecp/species/8831	Year-round
Rufous-crowned Sparrow	<i>Aimophila ruficeps</i> https://ecos.fws.gov/ecp/species/9718	Year-round
Short-eared Owl	<i>Asio flammeus</i> https://ecos.fws.gov/ecp/species/9295	Wintering
Tricolored Blackbird	<i>Agelaius tricolor</i> https://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe	<i>Aechmophorus occidentalis</i> https://ecos.fws.gov/ecp/species/6743	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date.

These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts,

Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

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.

Facilities

Wildlife refuges

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

THERE ARE NO REFUGES 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](#).

THERE ARE NO KNOWN 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 tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Not for
consultation