BIOLOGICAL ASSESSMENT

WCSS – Sebastopol Road
2875 Sebastopol Road
Santa Rosa, CA 95409

Prepared
By

Kjeldsen Biological Consulting
For

Steve Tangney
West Coast Self-Storage

October 2022

BIOLOGICAL ASSESSMENT

WCSS – Sebastopol Road
2875 Sebastopol Road
Santa Rosa, CA 95409

TABLE OF CONTENTS

BIOLOGICAL ASSESSMENT

WCSS – Sebastopol Road
2875 Sebastopol Road
Santa Rosa, CA 95409

EXECUTIVE SUMMARY

This study was conducted at the request of Steve Tangney, West Coast Self-Storage, as background information for a permit from the City of Santa Rosa to develop the property.

The property is located at 2875 Sebastopol Road on the west side of the City of Santa Rosa. The project proposes to construct a Self-Storage Building. The lot is zoned light industrial. The surrounding parcels support rural residences, pastoral grasslands, and industrial buildings. The property is within the USGS Sebastopol Quadrangle.

The purpose this report is to provide an assessment of biological resources on the project site that may be impacted by the proposed project. Specifically, this report evaluates the property for potential impacts on State or Federal listed plants or animals, habitat, and jurisdictional "Waters of the U.S" or Seasonal Wetlands.

The findings presented below are the result of field studies conducted on September 22, 2022 by Kjeldsen Biological Consulting:

- The project proposes the construction of a Self-Storage building on a previously developed site. The lot is comprised of concrete pads and gravel. There are several native trees on the permitter of the site;
- There are no Seasonal Wetlands, Vernal Pools or "Waters of the U.S." within the footprint of the proposed project;
- The project site drains by direct infiltration or by sheet flow into storm drains, and roadside ditch along Brittan Lane;
- We found no sensitive plants or habitat for special-status plants or animals on the project site. The habitat associated with the property is such that there is no need for seasonal floristic surveys;
- No State or Federally Threatened or Endangered species, or habitat to support, were observed within the footprint of the project site;
- The project site is located within U.S. Fish and Wildlife Critical Habitat for the Sonoma County population of the California Tiger Salamander (CTS). No breeding or upland estivation exists on the property. It is highly unlikely that CTS would be present or impact by developing the site;
- U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application maps the site as "No Affect" to CTS;
- The development on the site will not significantly reduce the habitat for any State or Federally listed species;
- The project will not impact any Sensitive Natural Communities regulated by the California Department of Fish and Wildlife; and

- The flora and fauna observed on and near the project site is included as an Appendix.

The habitat is such that there is no need for seasonal floristic surveys or seasonal wildlife surveys.

The proposed project footprint is not associated with Seasonal Wetlands or "Waters of the U.S." that would be under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and or Regional Water Quality Control Board (RWQCB).

The Santa Rosa City Code provides protection for trees within the City of Santa Rosa. Removal of trees will require a permit from the City of Santa Rosa.

Recommendations

Trees proposed for removal must be mitigated as per City of Santa Rosa requirements.

If tree removal is to occur between February 1 and August 31, (bird breeding and nesting seasons), a qualified wildlife biologist shall conduct preconstruction surveys for raptor and passerine bird activities and/or their nests within trees proposed for removal. The preconstruction survey shall be conducted no more than 14 days prior to removal and or ground disturbing activities.

BIOLOGICAL ASSESSMENT
2875 Sebastopol Road
Santa Rosa, CA 95409

A. PROJECT DESCRIPTION

A.1 Introduction

This study was conducted at the request of Steve Tangney, West Coast Self-Storage, as background information for a permit from the City of Santa Rosa to developed the property.

The property is located at 2875 Sebastopol Road on the west side of the City of Santa Rosa (APN# 035-251-037). The project proposes to construct a Self-Storage Building. The lot is zoned light industrial. The surrounding parcels support rural residences, developed landscpe, and industrial buildings. The property is within the USGS Sebastopol Quadrangle. Plate I illustrates the project location and Plate III is an aerial photograph of the property

A.2 Purpose

The purpose of this report is to identify biological resources that may be affected by the proposed project as listed below:

- To determine the presence of potential habitat for special-status species which would be impacted by the proposed project, including habitat types which may have the potential for supporting special-status species (target species that are known for the region, habitat, the Quadrangle and surrounding Quadrangles);
- To identify if the project will have a substantial adverse effect on Sensitive Habitats or Communities regulated by the California Department of Fish and Wildlife;
- To identify and assess potential impacts to Federal or State protected wetlands as defined by Section 404 of the Clean Water Act; and
- To determine if the project will substantially interfere with native wildlife species, wildlife corridors, and or native wildlife nursery sites; and
- To determine the effects of the proposed project on any on-site or off-site biological resources.

This biological assessment provides general information on the potential presence of sensitive species and habitats. The biological assessment 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 Regulatory Setting

California Endangered Species Act (CESA)
Fish and Wildlife Code Sections 2050-2098 establish 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 California Department of Fish and Wildlife (CDFW) to determine if a proposed project has the potential to jeopardize the continued existence of listed endangered, threatened, or candidate species.

Endangered Species Act (ESA)
Provisions of the federal Endangered Species Act (ESA), as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take. "Take" under the ESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." U.S. Fish and Wildlife Service (USFWS) regulations define harm to include some types of "significant habitat modification or degradation." In the case of Babbitt, Secretary of Interior, et al., Petitioners v. Sweet Home Chapter of Communities for a Great Oregon, et al. (No. 94-859), the United States Supreme Court ruled on June 29, 1995, that "harm" may include habitat modification "where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

California Fish and Wildlife Code Section 1600
Streams, lakes, and riparian vegetation as habitat for fish and other wildlife species, are subject to jurisdiction by the CDFW under Sections 1600-1616 of the California Fish and Wildlife Code. Any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake; generally require a 1602 Lake and Streambed Alteration Agreement.

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.

Special-status Species
Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These Acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife. Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, and U.S. Fish and Wildlife Service (USFWS) Species of Concern are considered special status species.

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.
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
The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." "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 Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These water bodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the ACOE under Section 404.

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.

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.

B.2 Field Survey Methodology

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 species known for the Quadrangle, surrounding Quadrangles, the County or the region. Our scoping also considered records in the most recent version of the California Department of Fish and Wildlife California Natural Diversity Data Base (CDFW CNDDB 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 rare, threatened or

endangered 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.

Our fieldwork was conducted by walking the property and proposed project footprint. Our study analyzed the site and surrounding area 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 September 22, 2022 by Kjeldsen Biological Consulting.

Plants

Our survey was conducted identifying and recording all species on the site. Plants unidentifiable in the field were collected for identification with reference sources and a binocular microscope. Plant materials collected and identified in the laboratory are noted in the attached appendix. The open nature of the site, historic use, on-going maintenance, 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. All plants living or remains from previous years growth were identified and are listed as an attachment.

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 property. 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 potential bird nests were present, and for potential bat breeding habitat by looking for potential roosting habitat, rock outcrops and tree crevasses. All animal life observed was recorded in the field and is presented as an attachment.

Wildlife Movement

Aerial photos were reviewed to evaluate the habitat surrounding the property and the potential for wildlife movement, or wildlife corridors from adjoining properties onto or through the property. Our field methodology for identifying corridors searched for game trails or habitat that would favor movement of wildlife or potential gene flow. We also looked for barriers that would prevent movement or direct movement to particular areas. No game cameras, trackplates, or other field equipment were used.

C. RESULTS / FINDINGS

Our results and findings are based on our fieldwork, literature search, and the background material available for the property. The property is located at 2875 Sebastopol Road on the west side of the City of Santa Rosa. The property is an approximate 1-acre and previously contained two structures and paved parking lot. The structures were removed in 2006. The majority of the property is pavement and compacted gravel. There are several trees growing around the perimeter and a small roadside ditch along Britten Lane. The project proposes to construct a self-storage building. All vegetation on the property will be removed. Habitat on the property would be considered developed landscape (see Plate III).

C.1 Biological Setting

The property is surrounded by developed residential and commercial lots. The property is bordered by Brittan Lane along the western property boundary and Sebastopol Avenue along the south. The vegetation and habitat on the site has been highly disturbed. At present the proposed project site is concrete and gravel. Figures 1 to 6 below illustrate the present conditions of the study area.

Figure 1. View of Sebastopol Road at the property location.

Figure 2. View looking west along Sebastopol Road.

Figure 3. View of property from north east corner.

Figure 4. View of property from north west corner.

Figure 5. Roadside ditch along a portion of Brittan Lane that will be culverted.

Figure 6. View of western property line along Brittan Lane.

C.2 Habitat Type Present

The Manual of California Vegetation Second Edition (Sawyer 2009) classifies vegetation on the property as Ruderal/Disturbed. In general terms the project site would be described as ruderal habitat.

A distinguishing characteristic of urban habitats is the mixture of native and exotic plant species. Exotic plant species may provide valuable habitat elements such as cover for nesting and roosting, as well as food sources such as nuts or berries. Native and introduced animal species that are tolerant of human activities often thrive in urban habitats.

Ruderal Habitat

Ruderal habitat supports a flora that is a result of site disturbance, historical use and the introduction of non-native plants (weed species). The ruderal grasslands have been created by past land use practices. The ruderal habitat of the site consists of native and naturalized exotic species that have been introduced and selected for over time. It is primarily composed of non-native annual grasses. For a complete list of species observed in this plant habitat see Appendix A.

C.3 Special-Status Species

Habitat conditions observed on the study area were used to evaluate for potential habitat for special-status plant or wildlife species to occur. This review is based on conditions observed at the site, the

results of the database and literature review, and the professional expertise of the investigating qualified biologists.

Tables I and II below list the potential for each special-status species to occur in the study based on the following criteria:

No Potential- Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Unlikely- Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential- Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential- All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Present- Species was observed during the site visit or has been recently recorded from the site.

Plants

A map from the CDFW CNDDB Rare Find Plate I show special-status plant species known in the proximity of the project. State and Federal Listed Threatened or Endangered species shown in Appendix B were considered and reviewed as part of our scoping for the project sites and property. These species are shown in the Table below.

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**	**Flower Period**	**Potential for Occurrence**
Alopercus aequalis var. *sonomensis* Sonoma Alopercus	Marshes and Swamps	May- July	**No potential.** Absence of requisite habitat or substrate on project site.
Amsinkia lunularis Bent-flowered Fiddleneck	Cismontane Woodland, Valley and Foothill Grassland	March-June	**No potential.** Absence of requisite habitat or substrate on project site.
Blennosperma bakeri Sonoma Sunshine	Grassland, Vernal Pools	March-May	**No potential.** Based on absence of requisite mesic habitat.
Downingia pusilla Dwarf Downingia	Wetlands	March-May	**No potential.** Absence of requisite habitat. No wetlands on property.

Scientific Name Common Name	Habitat Type or Plant Alliance	Flower Period	Potential for Occurrence
Hemizonia congesta ssp. *congesta* Congested Headed Tarplant	Coastal Grassland	April Oct.	**No potential.** Absence of requisite habitat or substrate on project site.
Lasthenia burkei Burke's Goldfields	Vernal Pools	April-June	**No potential.** Requisite aquatic habitat absent on the site.
Legenere limosa Legenere	Vernal Pools	April-June	**No potential.** Requisite aquatic habitat absent on the site.
Lilium pardalinum ssp. *pitkinense* Pitkin Marsh Lily	Marshes and Swamps, Valley Oak Scrub	May-Aug.	**No potential.** Absence of requisite habitat or substrate on project site.
Layia carnosa Beach Layia	Coastal Dunes	April-July	**No potential.** Lack of suitable substrate.
Limnanthes vinculans Sebastopol Meadowfoam	Meadows & Seeps, Valley & Foothill Grassland Vernal Pools	April- May	**No potential.** Requisite mesic habitat absent on the site or in the immediate vicinity.
Navarretia leucocephala ssp. *bakeri* Baker's Navarretia	Meadows and Seeps Cismontane Woodland, Valley and Foothill Grassland, Vernal Pools	May-July	**No potential.** Absence of requisite habitat or substrate on project site.
Lilium pardalinum ssp. *pitkinense* Pitken Marsh Lily	Marshes and Swamps, Valley Oak Scrub	May-Aug.	**No potential.** Absence of requisite mesic habitat.
Trifolium hydrophilum Saline Clover	Marshes and Swamps Grassland	April- June	**No potential.** Absence of requisite habitat or substrate on project site.
Trifolium amoenum Showy Indian Clover	Coastal Bluff Scrub, Valley and Foothill Grassland (Sometimes Serpentinite)	April- June	**No potential.** Historical use of the site precludes presence. This species is vulnerable to disturbance.

The CDFW CNDDB does not show any records of special-status species of plants for the study site. The Sebastopol Quadrangle lists the Pitken March Lily as a Sensitive Element Occurrence.

Pitkin Marsh Lily (*Lilium pardalinum* ssp. *pitkinense)* This plant is associated with marshes and swamps (it is extremely limited in nature). The project site does not contain habitat for this species.

The property is located within the Santa Rosa Plain Conservation Strategy area, and within the designated area of the USFWS Programmatic Biological Opinion (PBO) for the U.S. Army Corps of Engineers for Projects that May affect the Three Endangered Plant Species on the Santa Rosa Plain. There are no vernal pools associated with the proposed project or habitat which would contain topographic, hydrologic, and geographic conditions of suitable habitat for listed plants in the PBO.

The special-status plant species targeted by the PBO are Sonoma Sunshine (*Blennosperma bakeri*), Burke's Goldfields (*Lasthenia burkei*), and Sebastopol Meadowfoam (*Limnanthes vinculans*). The biological site evaluation was performed outside of the spring floral season, and cannot definitively prove presence or absence of these special-status plant species. The potential for special-status plant species to occur within the property is extremely low. The lack of natural habitat (i.e. vernal pools or natural wetlands) within the developed landscape greatly reduces the potential for these species.

Burke's Goldfields (*Lasthenia burkei*) Listed as endangered by USFWS and CDFW. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range). Burke's Goldfields is a small, slender annual herb in the sunflower family (Asteraceae). It has narrow, opposite leaves.

Sonoma Sunshine (*Blennosperma bakeri*) Listed as endangered by USFWS and CDFW. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range). Sonoma Sunshine, which is also known as Baker's stickyseed, is a small (up to 12 inches in height), annual herb in the aster family (Asteraceae). The plant has alternate, narrow, hairless leaves, 2 to 6 inches long. The upper ones have 1 to 3 lobes, the lower ones none.

Sebastopol Meadowfoam (*Limnanthes vinculans*) Listed as endangered by USFWS and CDFW. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range). Sebastopol Meadowfoam is a small (up to 12-inch tall), multi-stemmed herb of the false meadowfoam family (Limnanthaceae). Although the first leaves are narrow and undivided, leaves on the mature plant have three to five undivided leaflets along each side of a long stalk (petiole). The shape of the leaves distinguishes Sebastopol Meadowfoam from other members of the Limnanthes genus.

The project site does not contain any "Suitable Habitat" for the Three Endangered Plant Species on the Santa Rosa Plain and there are no records for the site, or immediate vicinity.

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

Animals

A map from the CDFW CNDDB Rare Find Plate II shows special-status animal species known in the proximity of the project. State and Federal Listed Threatened or Endangered species shown in Appendix B were considered and reviewed as part of our scoping for the project and property.

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

Scientific Name **Common Name**	**Habitat**	**Potential for Occurrence**
Ambystoma californiense California Tiger Salamander	Ephemeral Breeding pools with Upland Oak Woodlands for estivation	**No Potential**. U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application maps the site as "No Affect" to CTS See Plate V.
Andrena blennospermatis Blennosperma Vernal Pool Andrenid Bee	Vernal pools with Blennosperma	**No Potential**. Lack of habitat. Site is entirely hardscape.
Brachyramphs marmoratus Marbled Murrelet	Coastal Nests in Old-growth	**No Potential**. Lack of habitat. Not within known range.
Chelonia mydas Green Sea Turtle	Oceanic	**No Potential**. Lack of habitat.
Coccyzus americanus occidentalis Western Yellow-billed Cuckoo	Riparian Forest and Woodlands along Permanent Streams	**No Potential**. Requisite habitat absent.
Danaus plexippus Monarch Butterfly	Milkweed, Migrates along Coast	**No Potential**. No host plants on site.
Emys marmorata Western Pond Turtle	Slow moving water or ponds	**No Potential**. Lack of aquatic habitat.
Elanus leucurus White-tailed Kite	Nests in tall trees near water	**No Potential**. Lack of potential habitat on property.
Linderiella occidentalis California Linderiella	Vernal Pools	**No Potential**. Lack of aquatic habitat.
Rana draytonii California Red-legged Frog	Creeks, Rivers, permanent flowing water	**No Potential**. Lack of aquatic habitat.
Syncaris pacifica California Freshwater Shrimp	Creeks & Estuaries below 300 ft.	**No Potential**. Lack of aquatic habitat associated with project site.
Strix occidentalis caurina Northern Spotted Owl	Old Growth Forests	**No Potential**. Lack of habitat. No potential nesting on property.
Taxidea taxus American Badger	Hillsides with suitable food sources	**No Potential**. Lack of habitat. Developed lot.

The CDFW CNDDB does not show any records of any State or Federally listed special-status animals for the study site.

The USGS Sebastopol Quadrangle is designated by California Department of Fish and Wildlife CNDDB as a sensitive (EO) Element Occurrence for the California Red-legged Frog.

California Red-legged Frog *(Rana draytonii)* is listed as threatened by USFWS. The California Red-legged Frog (CRLF) inhabits permanent or nearly permanent water sources (quiet streams, marshes, and reservoirs). They are highly aquatic and prefer shorelines with extensive vegetation. The project site does not contain any potential breeding habitat. The potential for the project to impact this species is highly unlikely.

California Tiger Salamander
The proposed project site is within the range of the California Tiger Salamander *(Ambystoma califoniense)* Listing Status: Endangered, Listing Date: 7/22/2002. When fall or winter rains begin, California Tiger Salamander (CTS) emerge from underground retreats to feed and migrate to their breeding ponds. Typically, migration to breeding habitat occurs on rainy nights early in the winter. Male CTS migrate before females and occupy breeding ponds for an average of 6 to 8 weeks, while females occupy the ponds for only about 1 to 2 weeks. The Sonoma County California Tiger Salamander is known within the Santa Rosa Plain.

• Aquatic Habitat

The project site does not contain any suitable aquatic breeding habitat.

• Estivation Habitat

The site consists of concrete pavement or compacted gravel. Potential estivation habitat for CTS on the property is very limited due to historic development. There was a very small amount of Gopher activity present on the property. Limited potential estivation habitat occurs surrounding the concrete and gravel.

• Dispersal Barriers

The nearest known record of CTS is approximately 1,500-feet to the west of the property as shown on Plate V. Sebastopol Road, and developed landscape are between this occurrence and the property, which create a barrier for potential movement onto the property.

The distance to known occurrences is within known movement for CTS, however Sebastopol Road and heavy traffic is a significant barrier for movement.

• Upland and Aquatic habitats within 1.24 miles (2km) of the project boundaries

From review of aerial photos there are on areas adjacent to the property that contain potential breeding habitat, or seasonal wetlands. There are areas of open grassland with ponds and seasonal wetlands within 1.24 miles of the property, which contain potential breeding habitat and potential estivation habitat.

The property is mapped by the U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application as "No Affect" to CTS See Plate V.

The habitat impacted by the proposed project is such that there is little reason to expect impacts to special-status species. We found no potential habitat for State or Federal special-status species on the property.

C.4 Discussion of Sensitive Habitat Types

The sensitive habitat types identified by the CDFW CNDDB 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 habitat types are not present on the property.

• Critical Habitat
The property is located within U.S. Fish and Wildlife Service (USFWS) Critical Habitat for the Sonoma Population of Tiger Salamander. See Plate IV.

Critical habitat analysis is required when the activities involve a federal permit, license, or funding, and are likely to destroy or adversely modify critical habitat. U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application Maps the site as "No Affect" to CTS. See Plate V.

It is reasonably certain that the development on the site will not impact the species and that the project site does not contain the physical or biological features essential to the conservation of the species.

• "Waters of the State" / Waters of the U.S.
The project site drains by direct infiltration or sheet flow into storm drains and a small roadside ditch along Brittan Lane. The road side ditch only received run off form properties along Brittan Lane. There is no connectivity to upland waters. There is no evidence of flow within this roadside ditch. No "Waters of the State" or Waters of the U.S. are associated with the property.

• 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 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 were no areas on the property with evidence of standing or greater than 50% hydric vegetation. The roadside ditch does not contain any evidence of standing water or hydric vegetation. There are no seasonal wetlands within the footprint of the project.

• Vernal Pools
Vernal pools are a type of seasonal wetland distinct for California and the western U.S. 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. There are no vernal pools within the footprint of the project.

• 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. Grasses within the footprint of the property 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, slow nutrient release, and protection for aquatic organisms. Riparian vegetation is also a moderator of water temperature and has a cascade effect in that it relates to oxygen availability. No riparian vegetation exists on the property.

• 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 and 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 proposed project will not negatively impact any migratory corridor or interrupt habitat linkage.

• Trees

Trees along the perimeter of the property will be removed. See Plate VI. Tree Count
One Black Walnut, Two small Valley Oaks, and one Live Oak. Large Valley Oak along Brittan Lane is proposed to be retained.

The Santa Rosa City Code, Chapter 17.24, requires protection or replacement of trees within the City of Santa Rosa of trees, including any heritage, protected, or street tree. A permit is required to remove trees on the property.

Trees are defined as any woody plant with a single trunk diameter of 4 inches or more or a combination of multiple trunks having a total diameter of 8 inches or more.

The following trees are native to Sonoma County and are considered heritage trees when their diameter or circumference is of a size specified in the ordinance:

Species
Valley oak (*Quercus lobata*)
Coast live oak (*Quercus agrifolia*)
Black oak (*Quercus kelloggii*)
Oregon oak (*Quercus garryana*)
Canyon oak (*Quercus chrysolepis*)
Blue oak (*Quercus douglasii*)
Interior live oak (*Quercus wislizenii*)
Coast redwood (*Sequoia sempervirens*)
Bay (*Umbellularia californica*)
Madrone (*Arbutus menziesii*)
Douglas's fir (*Pseudotsuga menziesii*)
Red alder (*Alnus rubra*)
White alder (*Alnus rhombifolia*)
Big leaf maple (*Acer macrophyllum*)

The following tree species are exempt from the above provisions (except for those that may exist as street trees): acacia, silver maple, poplar, ailanthus, hawthorn, fruitless mulberry, privet, pyracantha, Monterey pine, Monterey cypress, and fruit and nut trees (except walnut trees). A permit is not required for these tree species alteration, removal or relocation.

• Nesting Birds
Trees on the project site have the potential for nesting birds. No raptor nests or whitewash from nests was observed on the property. However, pre-construction surveys are recommended if tree removal takes place between February 1 and August 31, (bird breeding and nesting seasons).

• Unique plant populations
Unique plant populations consist of endemics or associations that would be outliers from populations that are outside of the region. There are no unique plant distributions associated with the property.

• Bat Roosting Habitat
Foliage and bark with small cavities in any tree could provide suitable temporary habitat for solitary tree-roosting bat species.

Several species of tree roosting bats are known to occur in the area. Several bat species are designated as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW),

or protected under California Fish and Game Code. CDFW SSC are species that face extirpation in California if current population and habitat trends continue. Although CDFW SSC generally have no special legal status, they are given special consideration during California Environmental Quality Act (CEQA) review. CFGC also protects non-listed bat species and their roosting habitat, including individual roosts and maternity colonies. The project site does not contain any significant roosting habitat for bats.

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 (Developed Hardscape) reasonably precludes presence on or associated with the proposed project.

The CNDDB five-mile search does not show any records of special-status species on the property, or adjacent properties.

The property is mapped by the U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application as "No Affect" to CTS.

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 CNDDB and known for the region are not present within the proposed project site. The project site does not support any US. ACOE jurisdictional wetlands..

The property is mapped by the U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application as "No Affect" to CTS.

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 would 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 un-quantifiable. 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.

E. RECOMMENDATIONS

Trees proposed for removal must be mitigated as per City of Santa Rosa requirements.

If tree removal is to occur between February 1 and August 31, (bird breeding and nesting seasons), a qualified wildlife biologist shall conduct preconstruction surveys for raptor and passerine bird activities and/or their nests within trees proposed for removal. The preconstruction survey shall be conducted no more than 14 days prior to removal and or ground disturbing activities.

F. SUMMARY

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

We find that the proposed project will not have an adverse effect, either directly or through habitat modifications, on any species identified as special-status by CDFW or USFWS.

The project site does not contain any Seasonal Wetlands that would be under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and or Regional Water Quality Control Board (RWQCB).

The property does not contain any sensitive plant communities listed by California Department of Fish and Wildlife.

The project site is located within U.S. Fish and Wildlife Critical Habitat for the Sonoma County population of the California Tiger Salamander (CTS). No breeding or upland estivation exists on the property. It is highly unlikely that CTS would be present or impact by developing the site. U.S. Fish and Wildlife Potential Effects Determination Web Mapping Application maps the site as "No Affect" to CTS.

The project will not substantially interfere with native wildlife species, wildlife corridors, and or native wildlife nursery sites. The habitat and historic use is such that there is no need for seasonal floristic surveys or seasonal wildlife surveys.

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

E.1 Literature Cited / References

Bailey, L. H., 1951. Manual of Cultivated Plants. The MacMillan Company NY.

Baldwin, B.G., D.H. Goldman, D.J.Keil, R.Patterson, T.J.Rosati, and D.H.Wilkens, editors 2012. The Jepson Manual Vascular Plants of California. U.C. Berkeley Press.

Barbe, G. D. 1991. Noxious Weeds of California. Department of Food and Agriculture, Sacramento, CA.

Barbour, M.G. and J. Major, 1977. Terrestrial Vegetation of California. John Wiley and Sons, New York.

Best, Catherine, et al. 1996. A Flora of Sonoma County, California Native Plant Society.

Behler, John L. National Audubon Society Fields Guide to North American Reptiles & Amphibians. May, 1996 Chanticleer Press, Inc., New York.

Brodo, Irwin M., Sylvia Duran Sharnoff and Stephen Sharnoff, 2001. Lichens of North America. Yale University Press. 795 pp.

California Department of Fish and Wildlife California Natural Resource Agency Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities November 24, 2009.

California Department of Fish and Wildlife Natural Diversity Data Base Rare Find 2022.

California Native Plant Society, Electronic Inventory of Rare and Endangered Vascular Plants of California. Online.

California Native Plant Society, Botanical Survey Guidelines (Revised June 2, 2001).

Grinell, Joseph, Joseph Dixon, and Jean M. Linsdale, 1937. Fur-bearing Mammals of California University of California Press, two Volumes.

Ingles, Lloyd C., l985. Mammals of the Pacific States. Stanford Press.

Jameson, E. W. and H. J. Peeters, 2004. Mammals of California. Revised Edition. U.C. Press.

Peterson, Roger T. 1961, 1990. A Field Guide to Western Birds. Houghton Mifflin Co., Boston, MA.

Peters, Hans and Pam Peters, 2005. Raptors of California California Natural History Guides. University of California Press, Berkeley and Los Angles.

Sawyer, J. O., T. Keeler-Wolf and Julie M. Evans 2009. A Manual of California Vegetation Second Edition. California Native Plant Society, Sacramento, California.

Schoenherr, Allan A. 1992. A Natural History of California. California Natural History Guides: 56. University of California Press, Berkeley.

Stebbins, Robert C., 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin.

Stewart, John D and John O. Sawyer, 2001 Trees and Shrubs of California. University of California Press.

Wilson, Barbara L., et al., 2008. Field Guide to the Sedges of the Pacific Northwest. Oregon State University Press, Corvallis Oregon.

E.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 taught botany at Sonoma State University for 35-years. He has over thirty years of experience in managing and conducting environmental projects involving impact assessment and preparation of compliance documents, Biological Assessments, CDFW 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 l994 to l996 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 twenty years of experience in conducting Biological Assessments, CDFW 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; The Wildlife Project Rare Pond Species Survey Techniques 2009; Western Section Bat Workshop 2011; and Ecology and Conservation of the Foothill-Yellow-legged Frog Workshop 2019. A full resume is available upon request.

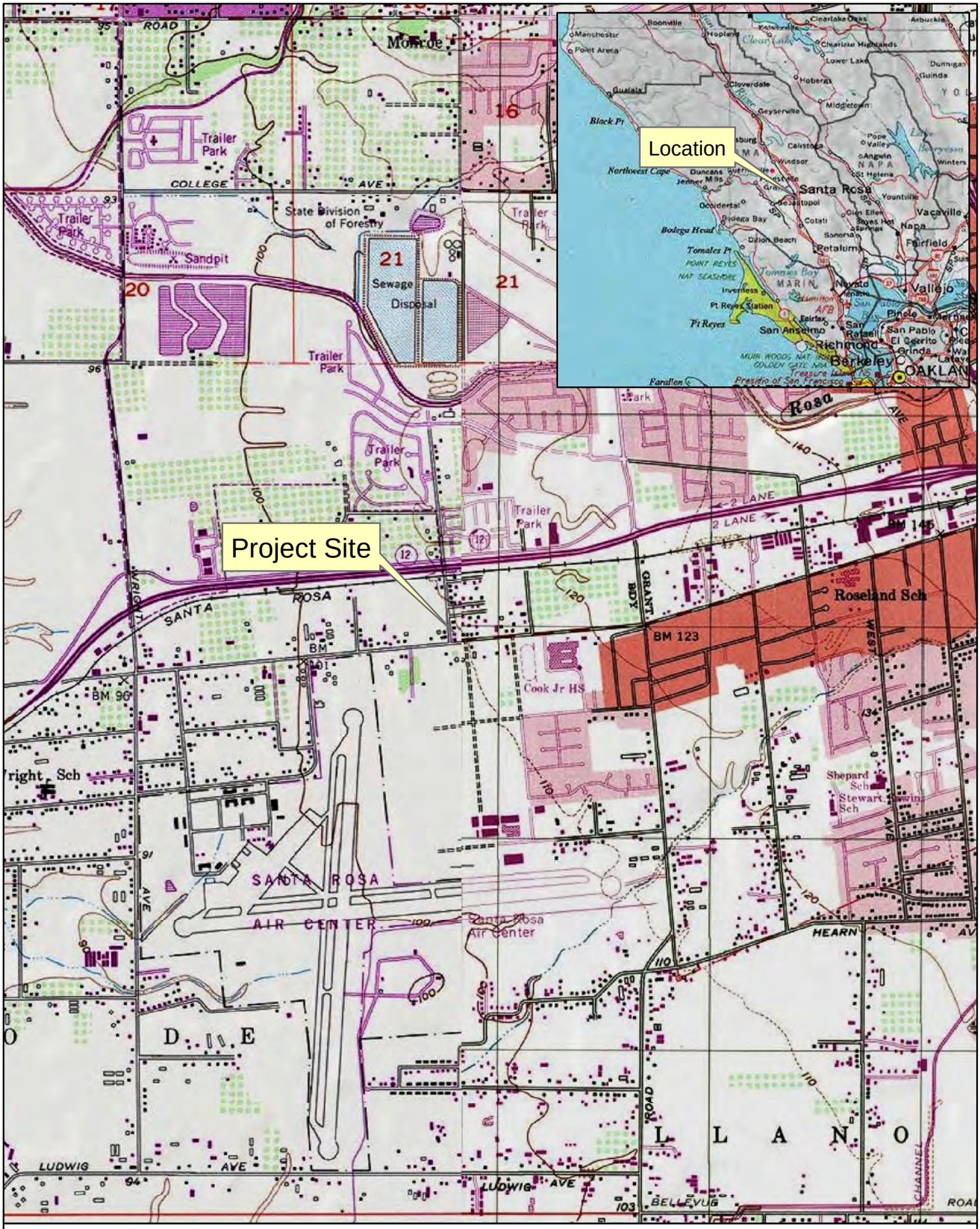


Plate I. Location and Site Map (Sebastopol Quadrangle)

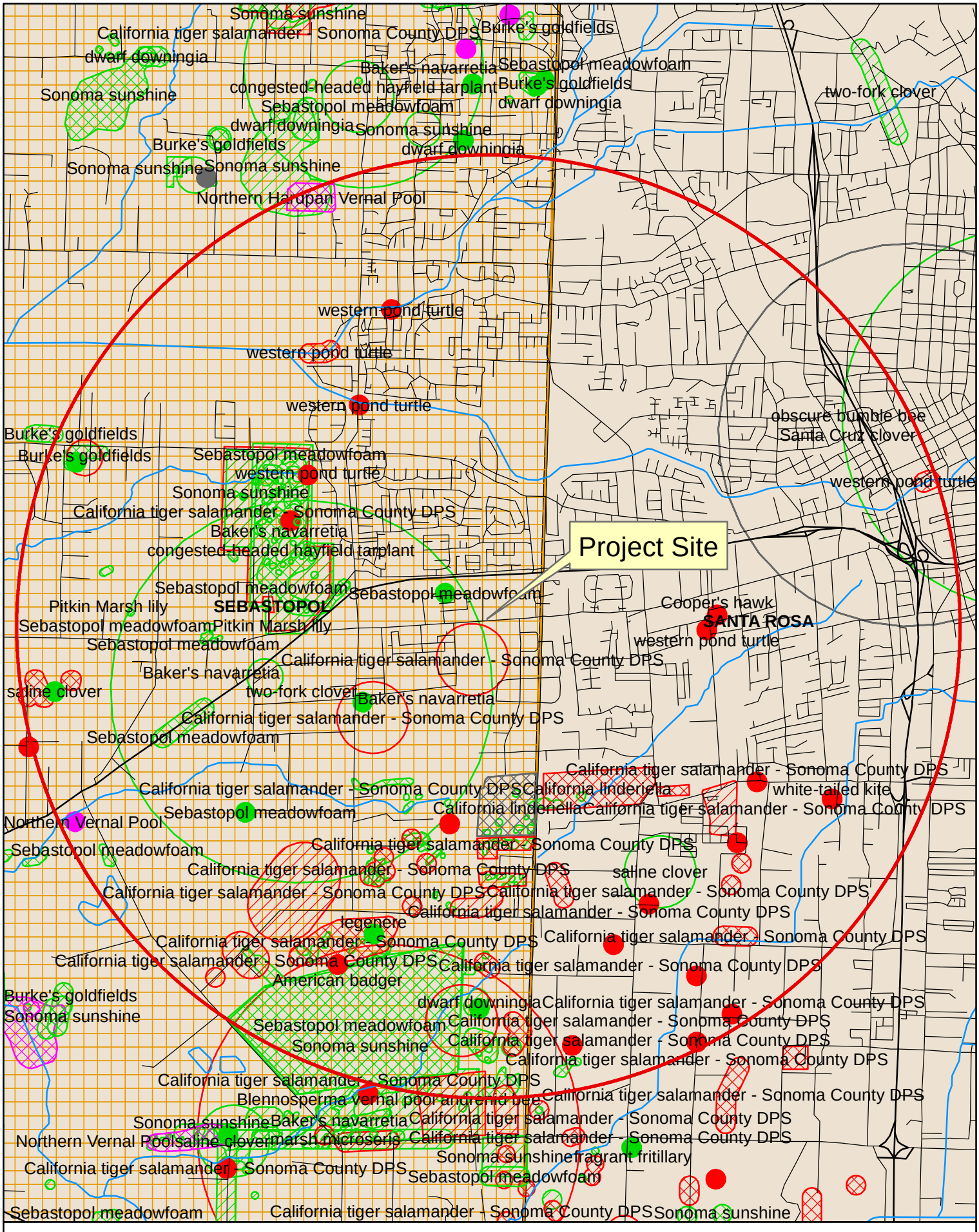


Plate II. CDFW CNDDB Rare Find Data

(Data Date October 2022)

N

Plate III. Aerial Photo / Survey Area

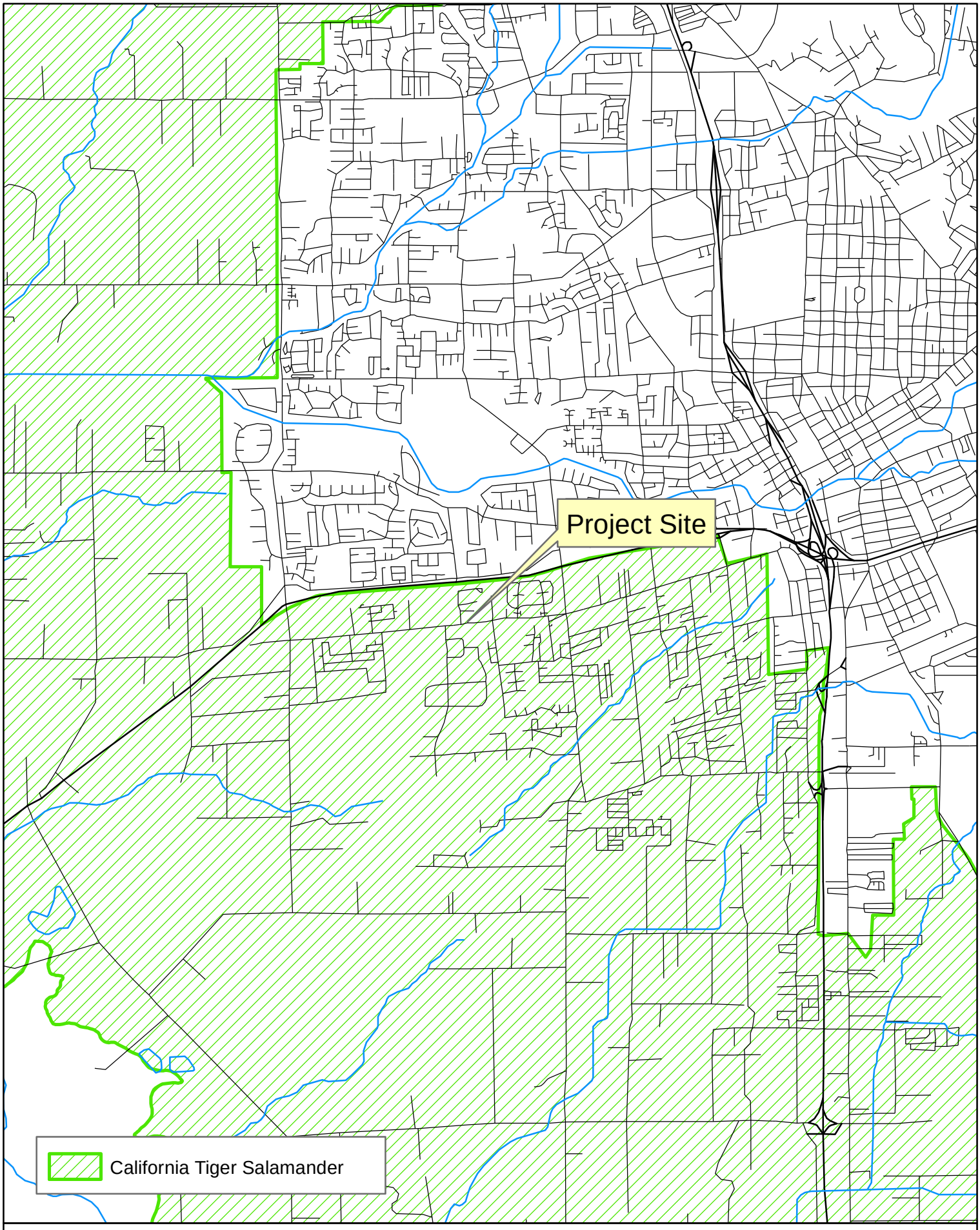
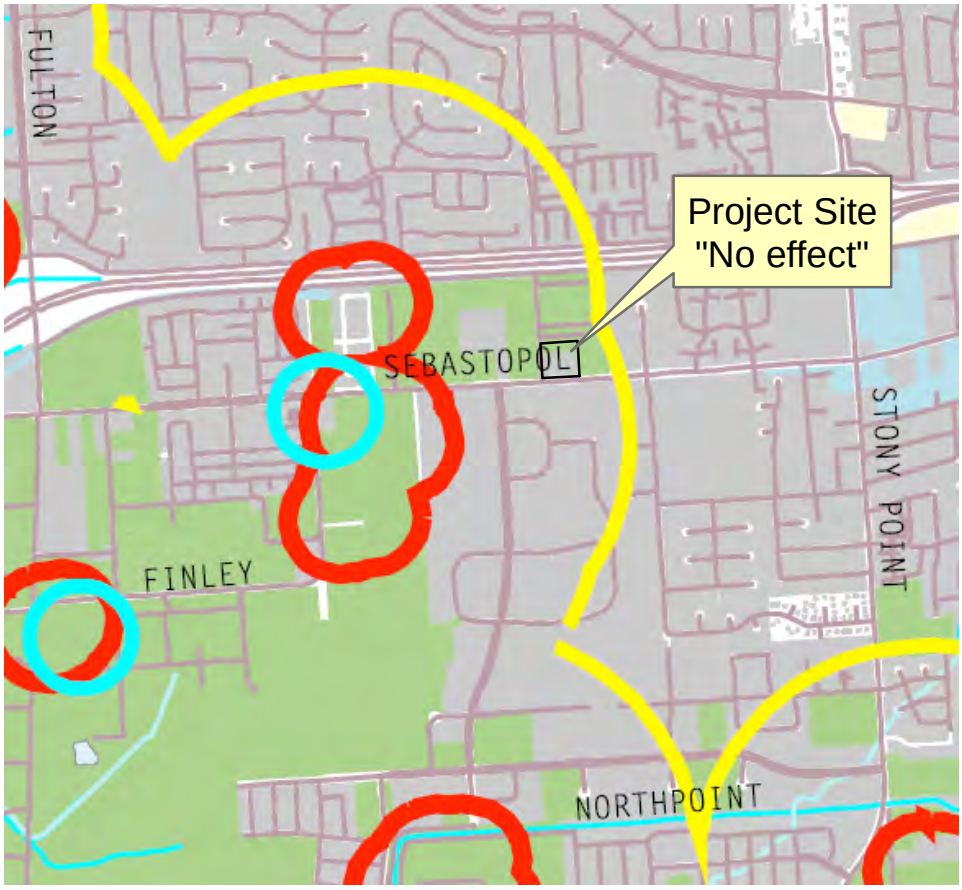


Plate IV. U.S. FWS Critical Habitat Map



Proximity to occurrences of
California Tiger Salamander (CTS)

- 1,3 miles from extant or extirpated breeding pools
- 2200 feet from extant or extirpated breeding pools
- 500 feet from adult occurrences
- 500 feet from a extant or extirpated breeding pools

Designations

- No effect
- May adversely affect listed plants and would likely adversely affect CTS
- May adversely affect listed plants and/or CTS
- May adversely affect listed plants, but would not likely adversely affect CTS
- No effect to listed plants, but would likely adversely affect CTS
- May adversely affect CTS, but no effect to listed plants

Plate V. Santa Rosa Plain Conservation Stratigy (Enclosure 1.)

N

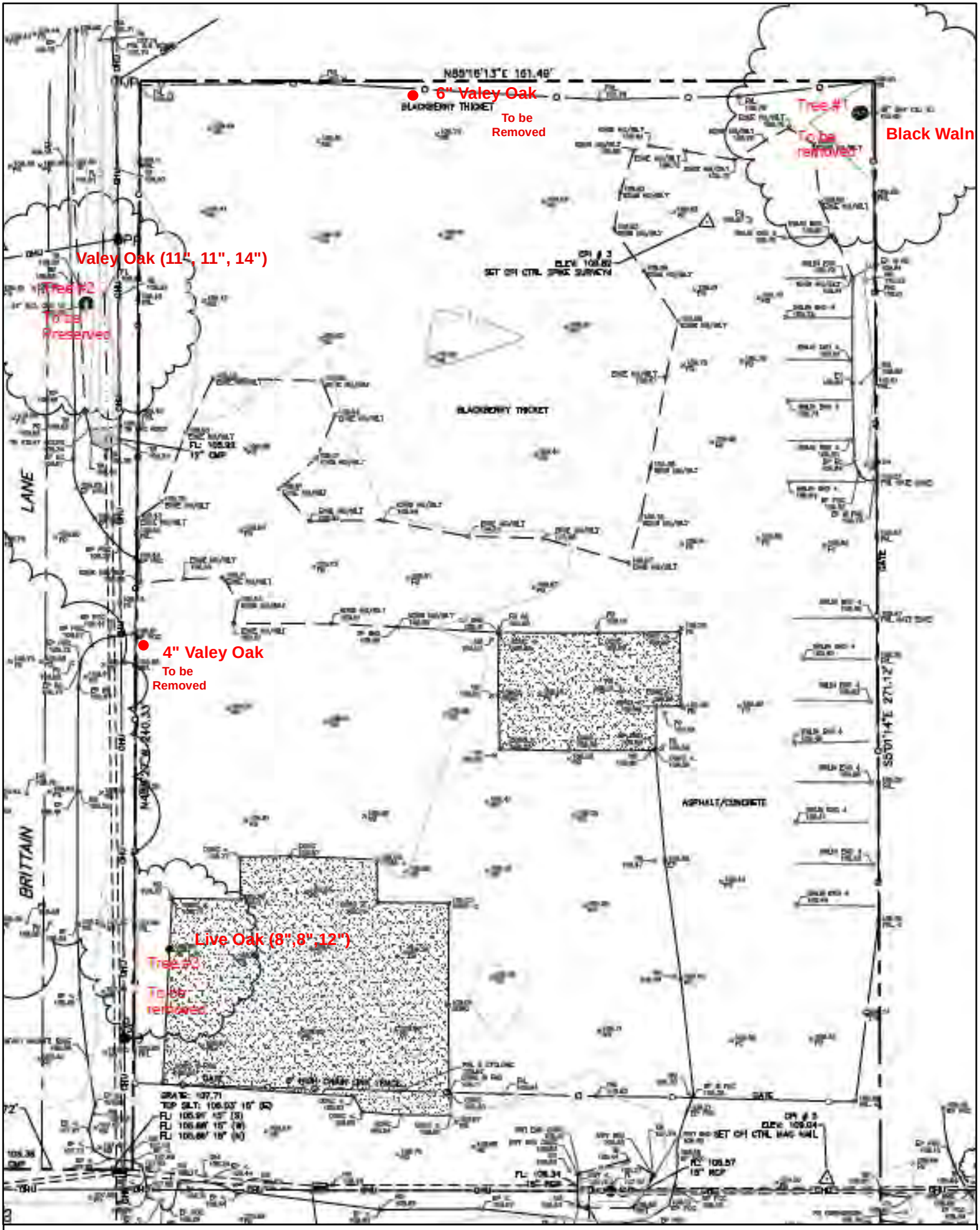


Plate VI. Tree Count Per City of Santa Rosa (Tree >4" DBH are Identified)

DBH = Diameter at breast height

APPENDIX A.

Flora and Fauna Observed

The nomenclature for the list of plants found on the property and the immediate vicinity follows: Lichens of North America, 2001, and The Jepson Manual 2012, for the vascular plants.

Habitat type indicates the general associated occurrence of the taxon on the property or in nature. **Abundance** refers to the relative number of individuals on the property or in the region.

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

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

LICHENS		
FOLIOSE		
Flavoparmelia caperata (L.) Hale Common Green Shield	On Oaks	Common
Xanthoria polycarpa (Hoffm.) Rieber Pin-cushion Sunburst Lichen	On Oaks Young Twigs	Common
FRUTICOSE		
Ramalina farinacea (L.) Ach. NCN	On Oaks	Common
VASCULAR PLANTS DIVISION CONIFEROPHYTA--GYMNOSPERMS		
VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS		
CLASS--DICOTYLEDONAE- TREES		
EUDICOTS		
FAGACEAE Oak Family		
Quercus agrifolia Nee Live Oak	Woodlands	Common
Quercus lobata Nee. Valley Oak	Valley Grasslands	Common
JUGLANDACEAE Walnut Family		
**Juglans nigra* L. Black Walnut	Ruderal Escape	Common

MAJOR PLANT GROUP Family Genus Common Name	Habitat Type	Abundance

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

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES

EUDICOTS		
APOCYANACEAE Dogbane Family		
**Vinca major* L. Periwinkle	Woodlands, Riparian, Ruderal	Common
CACTACEAE Cactus Family		
**Opuntia ficus-indica* (L.) Miller Mission Prickly-Pear, Indian-Fig Burbank's Spineless Prickly Pear	Escape	Common
ROSACEAE Rose Family		
Rosa Spp . Rose	Landscape Plantings	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-HERBS

EUDICOTS		
APIACEAE (Umbelliferae) Carrot Family		
**Dacus carota* L. Wild Carrot, Queen Anne's Lace	Ruderal Grasslands	Common
ASTERACEAE (Compositae) Sunflower Family		
**Cichorium intybus* L. Chicory	Ruderal	Occasional
**Circium vulgare* (Savi) Ten. Bull Thistle	Grasslands, Ruderal	Common
**Helminthotheca echioides* (L.) Holub Ox-tongue (=*Picris echioides)*	Ruderal	Common
**Hypochaeris glabra* L. Cat's Ear	Ruderal	Common
**Lactuca saligna* L. Willow Lettuce	Ruderal	Occasional
**Lactuca serriola* L. Prickly Lettuce	Ruderal	Occasional
Solidago elongata Nutt. West Coast Canadian Goldenrod (=*Solidago canadensis)*	Ruderal	Common
**Sonchus oleraceus* L. Common Sow Thistle	Ruderal	Common
**Taraxacum officinale* F.H.Wigg Dandelion	Ruderal	Common

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

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

BRASSICACEAE Mustard Family		
**Brassica nigra* (L.) Koch Black Mustard	Ruderal	Common
**Raphanus sativus* L. Wild Radish	Ruderal	Common
CHENOPODIACEAE Goosfoot Family		
**Chenopodium album* L. Lamb's Quarters, Pigweed	Ruderal	Common
CONVOLVULACEAE Morning-glory Family		
Convolvulus arvensis L. Morning-glory, Bindweed	Grasslands	Common
MALVACEAE Mallow Family		
**Malva parviflora* L. Cheeseweed, Mallow	Ruderal	Common
ONAGRACEAE Evening-primrose Family		
Epilobium brachycarpum C.Presl Willow Herb	Ruderal Dry Areas	Common
PLANTAGINACEAE Plantain Family		
**Plantago lanceolata* L. English Plantain	Ruderal	Common
POLYGONACEAE Buckwheat Family		
**Polygonum aviculare* L. subsp. *depressum* Common Prostrate Knotweed (=*P. arenastrum)*	Ruderal	Common
**Rumex acetosella* L. Sheep Sorrel	Ruderal	Common
ZYGOPHYLLACEAE		
**Tribulus terrestris* L. Puncture Vine	Ruderal	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--MONOCOTYLEDONAE-GRASSES

POACEAE Grass Family		
**Avena barbata* Link. Slender Wild Oat	Grasslands	Common
**Cynodon dactylon* (L.) Pers. Bermuda Grass	Ruderal	Common

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-l985, for the reptiles and amphibians; Udvardy and Farrand–1998, for the birds; and Jameson and Peeters -2004 for the mammals.

AMPHIBIA AND REPTILIA		
ORDER		
Common Name	**Genus**	**Observed**
SQUAMATA		
Western Fence Lizard	*Sceloporus occidentalis*	X

MAMMALS		
ORDER		
Common Name	**Genus**	**Observed**
CARNIVORA		
Raccoon	*Procyon lotor*	Skat
RODENTIA		
Pocket Gopher	*Thomomys bottae*	Sight

AVES		
ORDER		
Common Name	**Genus**	**Observed**
AVES		
American Crow	*Corvus brachyrhynchos*	X

APPENDIX B.

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

California Native Plant Society Nine Quadrangle Search

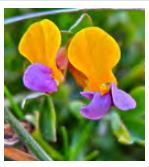
U.S. Fish & Wildlife Service IPaC Trust Resources Federal Endangered and Threatened Species that Occur in or may be Affected by the Project

California Native Plant Society

Search Results

14 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3812247**], Habitat is one of [**VFGrs**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Blennosperma bakeri	Sonoma sunshine	Asteraceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	No Photo Available
Castilleja ambigua var. *ambigua*	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G4T4	S3S4	4.2	 ©2011 Dylan Neubauer
Clarkia imbricata	Vine Hill clarkia	Onagraceae	annual herb	Jun-Aug	FE	CE	G1	S1	1B.1	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2	S2	1B.2	 © 2004 Carol W. Witham
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	 © 2015 Vernon Smith
Horkelia tenuiloba	thin-lobed horkelia	Rosaceae	perennial herb	May-Jul(Aug)	None	None	G2	S2	1B.2	 © 1994 Doreen L. Smith
Hosackia gracilis	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	None	None	G3G4	S3	4.2	 © 2015 John Doyen
Limnanthes vinculans	Sebastopol meadowfoam	Limnanthaceae	annual herb	Apr-May	FE	CE	G1	S1	1B.1	 © 2015 Vernon Smith

Microseris paludosa	marsh microseris	Asteraceae	perennial herb	Apr-Jun(Jul)	None	None	G2	S2	1B.2	No Photo Available
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G4T2	S2	1B.1	 © 2018 Barry Rice
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	None	None	G4	S3	4.2	No Photo Available
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	FE	None	G1	S1	1B.1	No Photo Available
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 14 of 14 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 29 September 2022].

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

Query Summary:
Quad IS (Guerneville (3812258) OR Healdsburg (3812257) OR Mark West Springs (3812256) OR Camp Meeker (3812248) OR Sebastopol (3812247) OR Santa Rosa (3812246) OR Valley Ford (3812238) OR Two Rock (3812237) OR Cotati (3812236))
AND Habitat IS (Artificial standing waters OR Pavement plain)

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	State Rank	CA Rare Plant Rank	Habitats
Rana draytonii	California red-legged frog	Amphibians	Threatened	None	S2S3	null	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Wetland
Taxidea taxus	American badger	Mammals	None	None	S3	null	Valley & foothill grassland

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] 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.

---

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. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

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

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

Crustaceans

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

Flowering Plants

NAME	STATUS
Burke's Goldfields *Lasthenia burkei* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4338	Endangered
Pitkin Marsh Lily *Lilium pardalinum ssp. pitkinense* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/570	Endangered
Sebastopol Meadowfoam *Limnanthes vinculans* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/404	Endangered
Showy Indian Clover *Trifolium amoenum* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6459	Endangered
Sonoma Alopecurus *Alopecurus aequalis var. sonomensis* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/557	Endangered
Sonoma Spineflower *Chorizanthe valida* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7698	Endangered

Sonoma Sunshine Blennosperma bakeri — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1260

White Sedge Carex albida — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3063

Yellow Larkspur Delphinium luteum — Endangered
Wherever found
There is final critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3578

Critical habitats

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

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Tiger Salamander Ambystoma californiense https://ecos.fws.gov/ecp/species/2076#crithab	Final

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 https://www.fws.gov/program/migratory-birds/species

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
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. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

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

Cassin's Finch Carpodacus cassinii — Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

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

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20

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

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Tricolored Blackbird 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
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey

events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

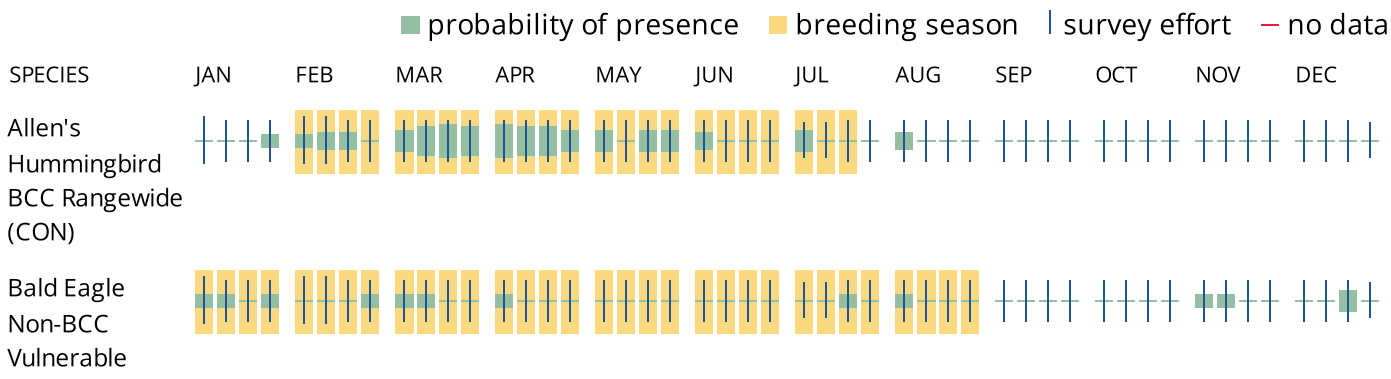
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

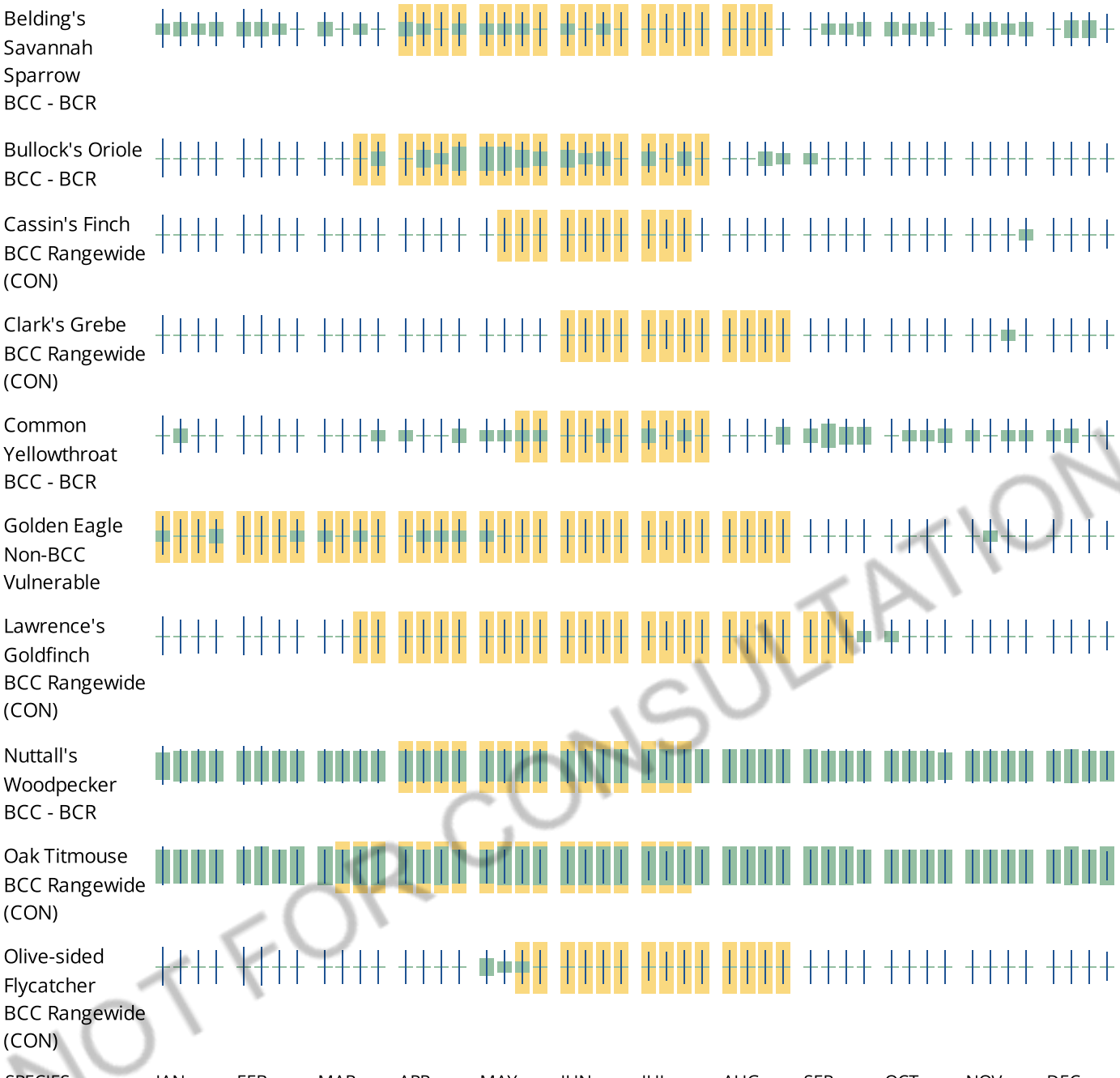
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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

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

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





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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar

means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

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

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or 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.