

BIOLOGICAL RESOURCE ASSESSMENT

Terrestrial Wildlife and Botanical Resources

Cheney Wilson Subdivision Project

Colusa County, California

June 2019



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BIOLOGICAL RESOURCE ASSESSMENT

Cheney Wilson Subdivision Project

Project Location:

Colusa County, California
Rancho Jimeno Land Grant

INTRODUCTION

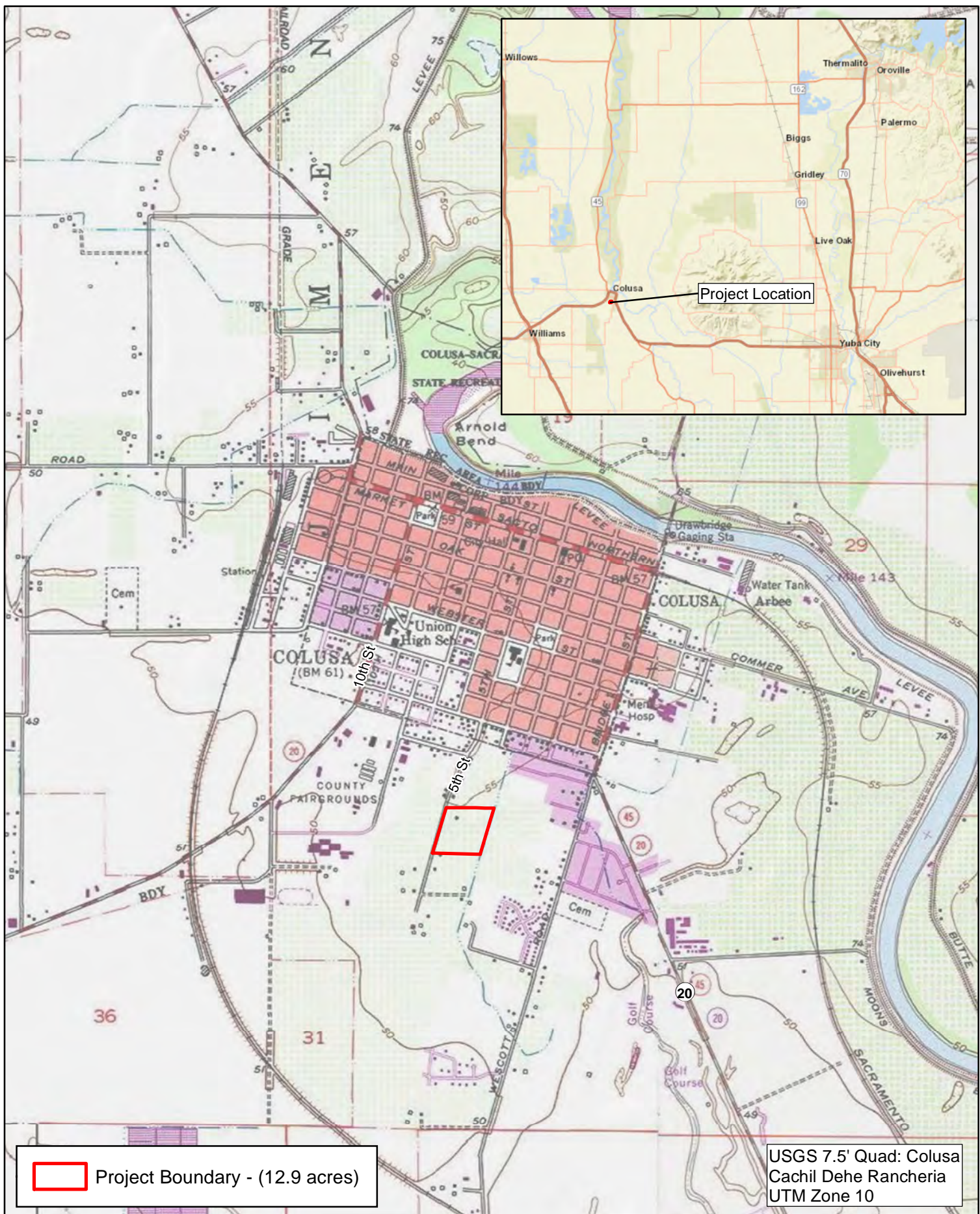
Purpose and Overview

The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive, and rare species and their habitats that occur or may occur in the biological survey area (BSA) of the Cheney Wilson Subdivision Project (Project) area located between 3rd and 5th Streets in Colusa County, California (**Figures 1 & 2**). The Project area is surrounded by the City of Colusa, but is not incorporated into city limits. The Project area is approximately 12.83 acres. A residential development is planned for this site.

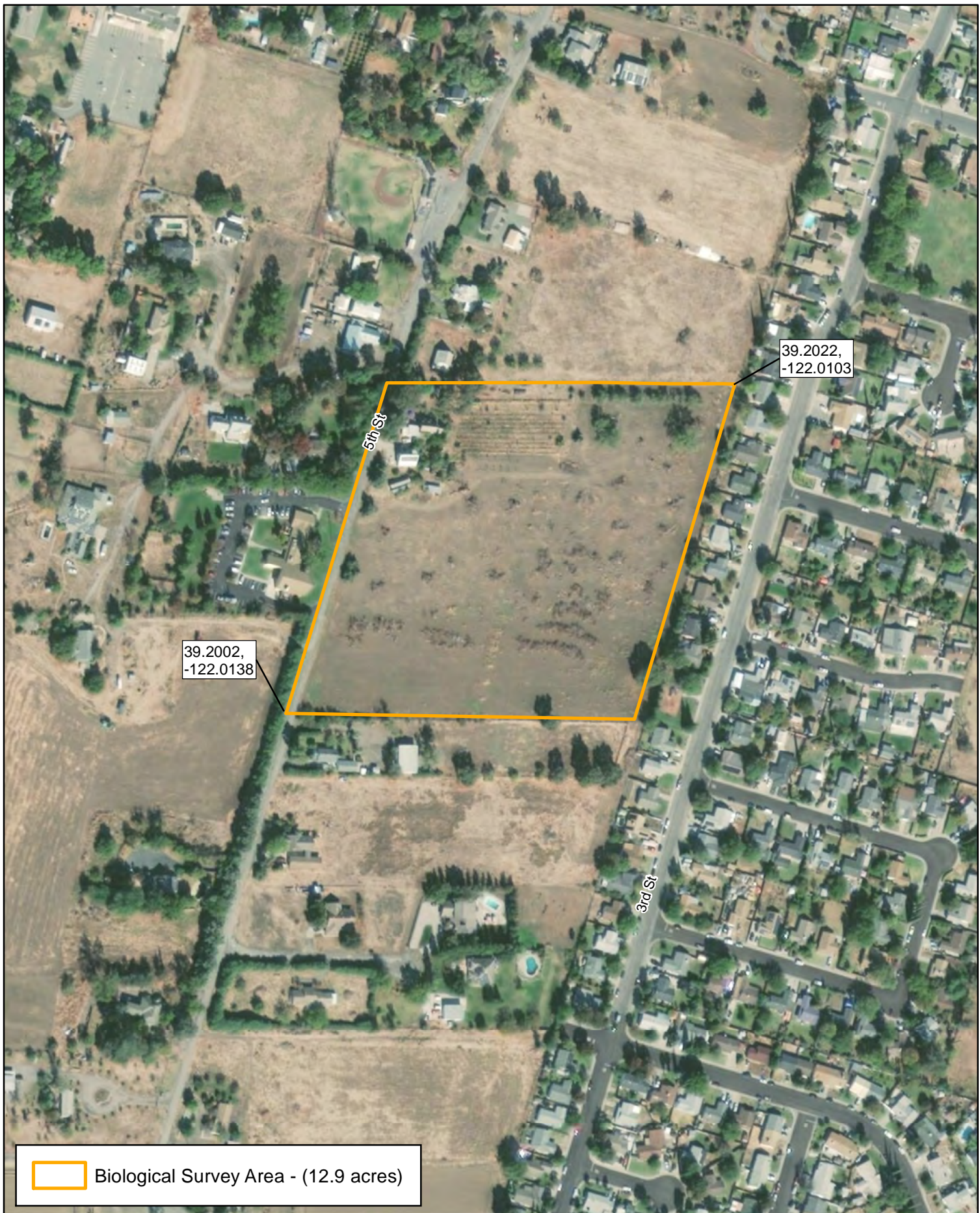
The BSA is the area where biological surveys are conducted (**Figure 3**). Gallaway Enterprises conducted biological and botanical habitat assessments in the BSA to evaluate site conditions and potential for biological and botanical species to occur. Other primary references consulted include species lists and information gathered using United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC), California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of habitat assessments and recommendations for avoidance and minimization measures.

Project Location and Environmental Setting

The BSA is located adjacent to the City of Colusa, but is not incorporated into city limits. The BSA falls within the historic Rancho Jimeno Land Grant; latitude 39.201153, longitude -122.012060. The BSA is located in the north Sacramento Valley, just west of the Sacramento River and the Sutter Buttes. The surrounding area consists of residential and agricultural land. The property has been heavily disturbed by farming activity including tilling and disking. There is a residential home and several associated outbuildings located in the northwest corner of the BSA, along with an existing garden and orchard trees. Residential homes occur to the east, a large church occurs to the west, and rural residences and associated farmland occurs to the north and south of the Project site. The overall topography of the BSA is relatively flat.







Soils within the BSA are silty loams with a deep restrictive layer of more than 80 inches in depth. The average annual precipitation for the area is 16.22 inches and the average temperature is 61.3° F (Western Regional Climate Center 2019).

Project Description

The proposed Project would divide the 12.83-acre site into 35 parcels for future development with single-family homes. The average lot size would be 12,800 square feet, and typical lots would be 80 feet wide and 160 feet deep. Gross density for the Project would be 2.7 units per acre. As part of the improvements, the developer would construct adjacent portions of 5th Street as well as internal streets. The new streets would connect to 5th Street and be contained within the Project area. A short cul-de-sac is also proposed as part of the internal street network.

METHODS

References Consulted

Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a 5-mile radius of the BSA (**Figure 4**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed, and candidate species and their habitats within the BSA used in the preparation of this BRA are:

- The USFWS IPaC Official Species List for the Project area, April 12, 2019, Consultation Code 08ESMF00-2019-SLI-1665 (**Appendix A; Species Lists**);
- The results of a species record search of the CDFW CNDDDB, RareFind 5, for the 7.5 minute United States Geological Survey (USGS) “Colusa” and “Meridian” quadrangles (**Appendix A; Species Lists**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS “Colusa” and “Meridian” quadrangles (**Appendix A; Species Lists**);
- USFWS Critical Habitat Portal, April 12, 2019; and
- Results from the habitat assessment conducted by Gallaway Enterprises on April 15, 2019 (**Appendix B; Observed Species List**).

Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the California Fish and Game Code (CFG) (i.e. Fully Protected Species);

- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA, §15380).

Critical Habitat

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

The USFWS Critical Habitat Portal was accessed on April 12, 2019 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

Sensitive Natural Communities

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated as such because they represent a historical landscape and are typically preserved as valued components of California's diverse habitat assemblage.

Habitat Assessment

A general habitat assessment was conducted on April 15, 2019 by Gallaway Enterprises Biologist Brittany Reaves. Senior Botanist Elena Gregg was consulted on habitat suitability for rare and special-status plant species within the BSA.

Habitat assessments for botanical and wildlife species were conducted to determine the suitable habitat elements for special-status species within the BSA. The habitat assessment was conducted by walking the entire BSA, where accessible, and recording specific habitat types and elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns.

RESULTS

Developed Habitats

Cropland

Cropland habitats do not conform to normal habitat stages or conditions. The habitat conditions of cropland depend on the crop cycle, type of crop, and methods of cultivation. Croplands are located on

flat land and can consist of irrigated or non-irrigated lands. The majority of the BSA consist of cropland that has been farmed extensively; all areas were heavily disturbed and were primarily covered by white stemmed filaree (*Erodium moschatum*), a non-native invasive species. There were several agricultural burn piles located within the BSA, mature valley oak (*Quercus lobata*) trees, olive (*Olea europaea*) shrubs, English walnut orchard trees, and snags which could provide cover and habitat for some mammal species, such as tree-roosting bats and a variety of nesting migratory bird species. The disturbed agricultural fields provide ample foraging opportunities for birds and raptors such as red-tailed hawk (*Buteo jamaicensis*), American robin (*Turdus migratorius*), house finch (*Haemorhous mexicanus*), and many others, and suitable nesting habitat for ground-nesting species such as killdeer (*Charadrius vociferous*).

Urban

Urban habitat is present in the northwestern corner of the BSA in the form of a residential home and its associated outbuildings and landscaping. This environment can present a mosaic of vegetation including primarily ornamental landscaping, but can also incorporate native tree species. Generalist and invasive species often occupy urban habitat such as common raven (*Corvus corax*), house sparrow (*Passer domesticus*), scrub jays (*Aphelocoma californica*) and Brewer's blackbirds (*Euphagus cyanocephalus*), as well as small to medium mammals such as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*) (Mayer and Laudenslayer 1988).

Barren

Barren habitat is typified by non-vegetated soil, rock, and gravel. Only a small percentage of the BSA contains barren habitat. There is paved roadway located along the west side of the BSA and the driveway associated with the existing residence. The barren habitat type provides low quality habitat to wildlife.

Critical Habitat

There is no critical habitat within or adjacent to the BSA.

Sensitive Natural Communities

No SNCs occur within the BSA.

Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS, IPAC species list, CNDDb, and the CNPS list of rare and endangered plants within the "Colusa" and "Meridian" USGS 7.5 minute quadrangles, and their potential to occur within the BSA are described in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies, performing field visits, and evaluating habitat characteristics.

Table 1. Special-status species and sensitive natural communities and their potential to occur in the BSA of the Cheney Wilson Subdivision Project, Colusa County, CA

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
SENSITIVE NATURAL COMMUNITIES			
Coastal and Valley Freshwater Marsh	_/_SNC/_	Freshwater marsh.	<u>None</u> . There is no Coastal and Valley Freshwater Marsh within the BSA.
Great Valley Cottonwood Riparian Forest	_/_SNC/_	Riparian forest.	<u>None</u> . There is no Great Valley Cottonwood Riparian Forest within the BSA.
Great Valley Mixed Riparian Forest	_/_SNC/_	Riparian forest.	<u>None</u> . There is no Great Valley Mixed Riparian Forest within the BSA.
PLANTS			
Ferris' milk-vetch (<i>Astragalus tener</i> <i>var. ferrisiae</i>)	_/_/1B.1	Meadow & seep, valley & foothill grassland, wetlands. (Blooming Period [BP]: Apr – May)	<u>None</u> . There is no suitable habitat present within the BSA.
Heartscale (<i>Atriplex cordulata</i> <i>var. cordulata</i>)	_/_/1B.2	Chenopod scrub, meadows and seeps, valley/foothill grassland (sandy), in saline or alkaline soils. (BP: Apr – Oct)	<u>None</u> . There is no suitable habitat present within the BSA.
Brittlescale (<i>Atriplex depressa</i>)	_/_/1B.2	Usually in alkali scalds or alkali clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. (BP: Apr – Oct)	<u>None</u> . There is no suitable habitat present within the BSA.
Vernal pool smallscale (<i>Atriplex persistens</i>)	_/_/1B.2	Alkaline vernal pools. (BP: Jun, Aug – Oct)	<u>None</u> . There is no suitable habitat present within the BSA.
Palmate-bracted bird's-beak (<i>Chloropyron</i> <i>palmatum</i>)	FE/SE/1B.1	Chenopod scrub, valley and foothill grassland in alkaline soils. (BP: May – Oct)	<u>None</u> . There is no chenopod scrub or suitable habitat components within the BSA.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
PLANTS			
San Joaquin spearscale (<i>Extriplex joaquinana</i>)	_/_/1B.2	In seasonal alkali wetlands or alkali sink scrub. (BP: Apr – Oct)	<u>None</u> . There is no suitable habitat present within the BSA.
Woolly rose-mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	_/_/1B.2	Moist, freshwater-soaked river banks & low peat islands in sloughs; can also occur on riprap and levees. (BP: Jun – Sep)	<u>None</u> . There is no suitable habitat present within the BSA.
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	_/_/1B.1	Usually found on alkaline soils in playas, sinks, and grasslands. (BP: Feb – Jun)	<u>None</u> . There is no suitable habitat present within the BSA.
California alkali grass (<i>Puccinellia simplex</i>)	_/_/1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. (BP: Mar – May)	<u>None</u> . There is no suitable habitat present within the BSA.
Wright's trichocoronis (<i>Trichocoronis wrightii</i> var. <i>wrightii</i>)	_/_/2B.1	Meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Alkaline soils. (BP: May – Sep)	<u>None</u> . There is no suitable habitat present within the BSA.
INVERTEBRATES			
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT/_/_	Blue elderberry shrubs; usually associated with riparian areas.	<u>None</u> . No blue elderberry shrubs were observed within the BSA.
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE/_/_	Deep, turbid vernal pools.	<u>None</u> . There is no vernal pool habitat or features with suitable hydrology within the BSA.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT/_/_	Vernal pools and seasonally ponded areas.	<u>None</u> . There is no vernal pool habitat or features with suitable hydrology within the BSA.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
INVERTEBRATES			
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE/_/_	Deep vernal pools.	<u>None</u> . There is no vernal pool habitat within the BSA.
FISH			
There is no potential within the BSA for any special-status fish species due to the lack of aquatic features. There will be no effect to delta smelt (<i>Hypomesus transpacificus</i>), Central Valley Distinct Population Segment (DPS) steelhead (<i>Oncorhynchus mykiss irideus</i>), or any other federally or State listed fish species.			
AMPHIBIANS			
California tiger salamander Central Valley DPS (<i>Ambystoma californiense</i>)	FT/ST/_	Underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	<u>None</u> . There is no suitable habitat present within the BSA.
California red-legged frog (<i>Rana draytonii</i>)	FT/SSC/_	Streams with consistent flow, slow side waters with cobble and boulders for oviposition.	<u>None</u> . There is no suitable habitat present within the BSA. California red-legged frog has been extirpated from the Central Valley floor since the 1960s (USFWS 2002).
REPTILES			
Western pond turtle (<i>Emys marmorata</i>)	_/SSC/_	Perennial bodies of water with deep pools, locations for haul out, and locations for oviposition.	<u>None</u> . There is no suitable habitat present within the BSA.
Giant garter snake (<i>Thamnophis gigas</i>)	FT/ST/_	Prefers freshwater marsh and low gradient streams. Has adapted to rice paddies, drainage canals, and irrigation ditches.	<u>None</u> . There is no suitable habitat present within the BSA.
BIRDS			
Tricolored blackbird (<i>Agelaius tricolor</i>)	_/ST/_	Colonial nester in large freshwater marshes. Does most of its foraging in open habitats such as farm fields, pastures, cattle pens, large lawns.	<u>None</u> . There is no suitable marsh habitat or open water within or adjacent to the BSA. The nearest CNDDDB occurrence (#525) has been extirpated by development.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
BIRDS			
Swainson's hawk (<i>Buteo swainsoni</i>)	_/ST/_	Favors open grasslands and prairies for foraging. Prefers mature trees in riparian areas for nesting habitat.	Moderate. There is suitable nesting and foraging habitat present within the BSA. Swainson's hawks were observed flying over the BSA during the habitat assessment, but were not observed foraging or nesting within the BSA.
Western yellow-billed cuckoo Western U.S. DPS (<i>Coccyzus americanus occidentalis</i>)	FT/SE/_	Nests in dense riparian forests that occur in patch sizes of 25 acres or greater with a width of at least 330 feet.	None. There is no suitable foraging or nesting habitat in the BSA. The nearest CNDDDB occurrence (#27) is located 1.5 miles north of the BSA and is associated with dense riparian habitat that does not occur within the BSA.
Greater sandhill crane (<i>Antigone canadensis tabida</i>)	_/ST,FP/_	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	None. There is no suitable nesting habitat in the BSA and no CNDDDB occurrences within 5 miles of the BSA.
Song sparrow Modesto population (<i>Melospiza melodia</i>)	_/SSC/_	Prefers early successional riparian corridors for nesting, can be found along vegetated irrigation canals and levees (Shuford and Gardali 2008).	None. There is no suitable nesting habitat within the BSA.
Bank swallow (<i>Riparia riparia</i>)	_/ST/_	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None. There is no suitable nesting habitat within the BSA.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
BIRDS			
Northern spotted owl (<i>Strix occidentalis caurina</i>)	FT/ST/_	Forests characterized by dense canopy closure of mature and old-growth trees, abundant logs, standing snags, and live trees with broken tops.	<u>None</u> . There is no suitable habitat within the BSA and the BSA is located outside of the known range for northern spotted owl. (CDFW 2016) No effect.
MAMMALS			
Western red bat (<i>Lasiurus blossevillii</i>)	_/SSC/_	Riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in these broad-leaved trees.	Moderate . Western red bats are known to roost on oak trees, but are generally only found in riparian areas. Nearby CNDDDB occurrences are associated with the Sacramento River.

CODE DESIGNATIONS	
FE or FT = Federally listed as Endangered or Threatened FC = Federal Candidate Species SE or ST = State Listed as Endangered or Threatened SC = State Candidate Species SSC = State Species of Special Concern FP = State Fully Protected Species SNC = CDFW Sensitive Natural Community	CNPS California Rare Plant Rank (CRPR): CRPR 1B = Rare or Endangered in California or elsewhere CRPR 2 = Rare or Endangered in California, more common elsewhere CRPR 3 = More information is needed CRPR 4 = Plants with limited distribution 0.1 = Seriously Threatened 0.2 = Fairly Threatened 0.3 = Not very Threatened
<p>Potential for Occurrence: for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, or over-winter in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:</p> <p>None: The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficient surveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.</p> <p>Low: Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.</p> <p>Moderate: Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA. Pre-construction surveys may be required.</p> <p>High: Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required, with the exception of indicators for foraging habitat.</p> <p>Known: Species was detected in the BSA or a recent reliable record exists for the BSA.</p>	

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

Endangered, Threatened and Rare Plants

The land within the BSA is regularly disturbed by agricultural practices, including tilling and disking. Due to the regular disturbance and maintenance of the land within and adjacent to the BSA, the lack of seasonal wetland habitat, the lack of alkaline soils, and the dense cover of non-native vegetation, there is no potential for the palmate-bracted bird's-beak or any other special-status botanical species to occur within the BSA.

No suitable habitat was observed for any species-status plant species included in **Table 1** during the habitat assessment conducted on April 15, 2019.

Endangered, Threatened and Special Status Wildlife

A wildlife habitat assessment was conducted within the BSA on April 15, 2019. Suitable habitat was identified for several avian species protected under the MBTA and bats protected by the CFGC. A list of all wildlife species observed during the habitat assessment is provided in **Appendix B**.

Swainson's Hawk

Swainson's hawks are listed under the CESA as threatened. They are found throughout the western part of the United States and from Canada to Mexico. Swainson's hawks are a fairly large, slender hawk with three different color morph displays. The most common morph in northern California is the dark morph, which demonstrates black to dark brown under coverts and flight feathers. Suitable habitat includes open grasslands or agricultural fields that are adjacent to a riparian forest or oak woodland. Swainson's hawks primarily nest in riparian forests next to open fields that provide foraging opportunities. Nesting and courtship begin in April. Current threats facing the Swainson's hawk are loss of nesting and foraging habitat, change in agricultural regimes, pesticides, poaching, and human disturbances (CDFW 1994).

CNDDDB Occurrences

There are 40 CNDDDB occurrences of Swainson's hawk within 10 miles of the BSA. Only one (1) active nest was observed in the last 5 years in 2016 (#2079). This occurrence is located approximately 9 miles southwest of the BSA, between Williams and Arbuckle near Interstate 5. Several nearby CNDDDB occurrences of Swainson's hawk are associated with the Sacramento River, which is located within 1.5 miles of the BSA.

Status of Swainson's hawk occurring within the BSA

Swainson's hawks forage for small mammals and insects in open grasslands, low growing crops, and pastures. Adjacent land surrounding the BSA consists of agricultural cropland and residential development. Swainson's hawks nest in trees taller than 10 feet in wetlands and along drainages, or in windbreaks in fields and around farmsteads (Tesky 1994). There are several trees taller than 10 feet within the BSA; therefore, there is suitable nesting habitat for Swainson's hawks within the BSA. There is suitable foraging habitat within the BSA and adjacent to the BSA in the form of open agricultural fields.

Swainson's hawks will forage up to 10 miles from their nest. Suitable nest trees and foraging habitat occur within the BSA, and there is at least one (1) active nesting occurrence within 10 miles. There is **moderate** potential for Swainson's hawks to nest or forage within the BSA.

Western Red Bat

Western red bat is designated as a CDFW SSC. Western red bats are typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores). Roost sites are generally hidden from view from all directions except below; lack obstruction beneath, allowing the bat to drop downward for flight; lack lower perches that would allow visibility by predators; have dark ground cover to minimize solar reflection; have nearby vegetation to reduce wind and dust; and are generally located on the south or southwest side of a tree. Red bats generally begin to forage one to two hours after sunset. Although some may forage all night, most typically have an initial foraging period corresponding to the early period of nocturnal insect activity, and a minor secondary activity period corresponding to insects that become active several hours before sunrise. Red bats mate in late summer or early fall. Females become pregnant in spring and have a pregnancy of 80-90 days. Females may have litters of up to five pups per year. This species is considered to be highly migratory. Although generally solitary, red bats appear to migrate in groups and forage in close association with one another in summer. The timing of migration and the summer ranges of males and females seem to be different. Winter behavior of this species is poorly understood (Western Bat Working Group 2019).

CNDDDB Occurrences

There are four (4) CNDDDB occurrences within 5 miles of the BSA (#59, #60, #61, #62). These occurrences are all associated with riparian forest vegetation in the vicinity of the Sacramento River.

Status of Western Red Bats Occurring within the BSA

Mature trees occur within the BSA and provide suitable roosting habitat for western red bats; however, western red bats are closely associated with riparian habitat and there is no riparian habitat within the BSA. There is **moderate** potential for western red bats to occur within the BSA.

Migratory Birds and Raptors

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (§3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

CNDDDB Occurrences

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDDB because they are abundant and widespread.

Status of Migratory Birds and Raptors occurring in the BSA

There is suitable nesting habitat for a variety of ground, shrub, and tree nesting avian species throughout the BSA.

REGULATORY FRAMEWORK

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

Federal

Federal Endangered Species Act

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

Migratory Bird Treaty Act

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31 in the Central Valley). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Game Code (§3503.5)

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

Rare and Endangered Plants

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGF §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the ‘take’ prohibition “the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way.”

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGF dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

CONCLUSIONS AND RECOMMENDATIONS

Endangered, Threatened and Rare Plants

There is no suitable habitat for special-status botanical species; therefore, there will be no effects to botanical species and no avoidance and minimization measures are proposed.

Endangered, Threatened, and Special-status Wildlife

The following minimization and mitigation measures further reduce or eliminate Project-associated impacts to special-status wildlife species.

Western Red Bats

To minimize impacts to bat species protected by the CFGC the following are recommended avoidance and minimization measures:

- Mature trees should be removed and/or fallen between September 16 and March 15; outside of the bat maternity season. Trees should be removed at dusk to minimize impacts to roosting bats.

Swainson's Hawk

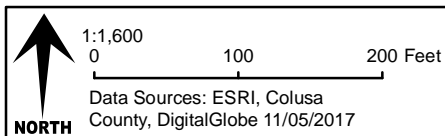
In order to minimize and mitigate impacts to Swainson's hawks and their habitat, the following avoidance and minimization measures are recommended:

- A protocol-level nesting raptor survey should be conducted within 7 days prior to the initiation of Project activities to determine the presence or absence of active Swainson's hawk nests within the BSA or within 500 feet of the Project boundary, where feasible. If an active Swainson's hawk nest is found, no work should occur within 500 feet of the active nest and CDFW shall be consulted.
- Per the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California* (CDFW 1994), projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree shall provide 0.5 acres of Habitat Management land for each acre of urban development authorized (0.5:1 ratio). There is 11 acres of suitable Swainson's hawk foraging habitat present within the BSA (**Figure 5**); therefore, 5.5 acres of Habitat Management land credits should be purchased from a CDFW-approved conservation bank that services the Project area. A preliminary search did not identify any conservation banks with available Swainson's hawk foraging habitat credits that service the Project area. The *Staff Report Regarding Mitigation* indicates that Habitat Management lands protected under this requirement may be protected through fee title acquisition or a conservation easement on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk; however, the high cost of purchasing land along with the small scope of this Project makes this mitigation method infeasible. Meridian Ranch Mitigation Bank and Van Vleck Mitigation Bank are two nearby mitigation banks that provide Swainson's hawk foraging habitat credits that may be utilized for Project mitigation at the lead agency's discretion.

Migratory Birds and Raptors

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
 - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.



Cheney Wilson Subdivision Project
Swainson's Hawk Foraging Habitat
Figure 5

- If an active nest (i.e. containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails as determined by a qualified biologist. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

Oak Woodland

The Colusa County General Plan adopted in 1989 does not contain specific provisions to address oak tree retention and replacement, oak protection during construction, heritage tree protection, riparian vegetation protections, and oak canopy retention and does not contain an oak woodland conservation program. Colusa County has developed a Voluntary Oak Woodlands Management Plan.¹ It is recommended that native oak trees are avoided by construction when feasible, or replaced with native tree species following removal and construction activity.

The City of Colusa's General Plan includes policy to preserve and maintain trees within the City (Policy PRC - 6.3). Implementation of the policy is addressed through implementing action PRC-6.3a (City Code 19.3) which protects mature trees through an application submittal process to the City's Tree Commission. Additionally, implementing action PRC-6.3.b indicates that the City will require tree planting along street frontages for all new development projects. The City will also review and update tree planting requirements for parking areas and new development.

¹ Colusa County Voluntary Oak Woodlands Management Plan.

Document can be found at: <http://www.colusarc.org/wp-content/uploads/2018/10/ColusaCoVoluntaryOakMgmtPlanFinal.pdf>

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LIST OF PREPARERS

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Appendix A

Species Lists



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

April 12, 2019

Consultation Code: 08ESMF00-2019-SLI-1665

Event Code: 08ESMF00-2019-E-05309

Project Name: Cheney Wilson Subdivision

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1665

Event Code: 08ESMF00-2019-E-05309

Project Name: Cheney Wilson Subdivision

Project Type: DEVELOPMENT

Project Description: residential development

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.20115275719985N122.0119653393959W>



Counties: Colusa, CA

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

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

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Colusa (3912221) OR Meridian (3912128))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<i>Antigone canadensis tabida</i> greater sandhill crane	ABNMK01014	None	Threatened	G5T4	S2	FP
<i>Astragalus tener</i> var. <i>ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex persistens</i> vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Chloropyron palmatum</i> palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<i>Great Valley Mixed Riparian Forest</i> Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Lasiurus blossevillii</i> western red bat	AMACC05060	None	None	G5	S3	SSC



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>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	ABPBXA3010	None	None	G5	S3?	SSC
<i>Myotis ciliolabrum</i> western small-footed myotis	AMACC01140	None	None	G5	S3	
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Plegadis chihi</i> white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	

Record Count: 33

Plant List

Inventory of Rare and Endangered Plants

9 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B] Found in Quads 3912221 and 3912128;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<u><i>Astragalus tener</i> var. <i>ferrisiae</i></u>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
<u><i>Atriplex cordulata</i> var. <i>cordulata</i></u>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
<u><i>Atriplex depressa</i></u>	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
<u><i>Chloropyron palmatum</i></u>	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	1B.1	S1	G1
<u><i>Extriplex joaquinana</i></u>	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
<u><i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i></u>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
<u><i>Lasthenia glabrata</i> ssp. <i>coulteri</i></u>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
<u><i>Puccinellia simplex</i></u>	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
<u><i>Trichocoronis wrightii</i> var. <i>wrightii</i></u>	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	2B.1	S1	G4T3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 12 April 2019].

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[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

Questions and Comments

rareplants@cnps.org

Appendix B

Observed Wildlife Species List

Wildlife Species Observed within the Cheney Wilson Subdivision Project April 15, 2019	
Scientific Name	Common Name
<i>Buteo swainsoni</i>	Swainson's hawk
<i>Cathartes aura</i>	Turkey vulture
<i>Charadrius vociferus</i>	Killdeer
<i>Felis catus</i>	Feral cat
<i>Haemorhous mexicanus</i>	House finch
<i>Hirundo rustica</i>	Barn swallow
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Mimus polyglottos</i>	Northern mockingbird
<i>Passer domesticus</i>	House sparrow
<i>Sialia mexicana</i>	Western bluebird
<i>Spinus tristis</i>	American goldfinch
<i>Spizella passerina</i>	Chipping sparrow
<i>Streptopelia decaocto</i>	Eurasian collared dove
<i>Sturnus vulgaris</i>	European starling
<i>Turdus migratorius</i>	American robin
<i>Tyrannus verticalis</i>	Western kingbird
<i>Zonotrichia leucophrys</i>	White-crowned sparrow

Appendix C

Project Site Photos Taken April 15, 2019

Project Site Photos

Taken April 15, 2019



Standing on the western edge of the BSA, looking south.



Standing on the western edge of the BSA, looking east.



Heavily disturbed land within the BSA covered with invasive species.



Valley oak tree located on the west side of the BSA.



Looking northwest within the BSA toward existing farmstead.



Within the BSA, looking west.