MOORE BIOLOGICAL CONSULTANTS

February 5, 2020

Mr. Pete Giles
DeNova Homes
1500 Willow Pass Court
Concord, CA 94520

Subject: "DOYLE PROPERTY", SONOMA, CALIFORNIA: BIOLOGICAL ASSESSMENT

Dear Pete:

Thank you for asking Moore Biological Consultants to assist with this project in Sonoma, California (Figure 1). The site is a parcel on the west side of 5th Street and just north of Napa Road in a primarily residential neighborhood (Figure 2). The purpose of this assessment is to describe existing biological resources in the project site, identify potentially significant impacts to biological resources from the project, and provide recommendations for how to reduce those impacts to a less-than-significant level. The work involved reviewing databases, aerial photographs, and documents, and conducting a field survey to document vegetation communities, potentially jurisdictional Waters of the U.S. and/or wetlands, and potentially suitable habitat for or presence of special-status species. This report details the methodology and results of our investigation.

Project Overview

The 2.88+/- acre project site consists of a home site and a few small sheds and structures, areas of open grassland, and scattered trees (Figure 3). The site is envisioned for single-family residential development. The project proponent may also be required to complete off-site road improvements along the project's frontage on some of the streets that border the site.

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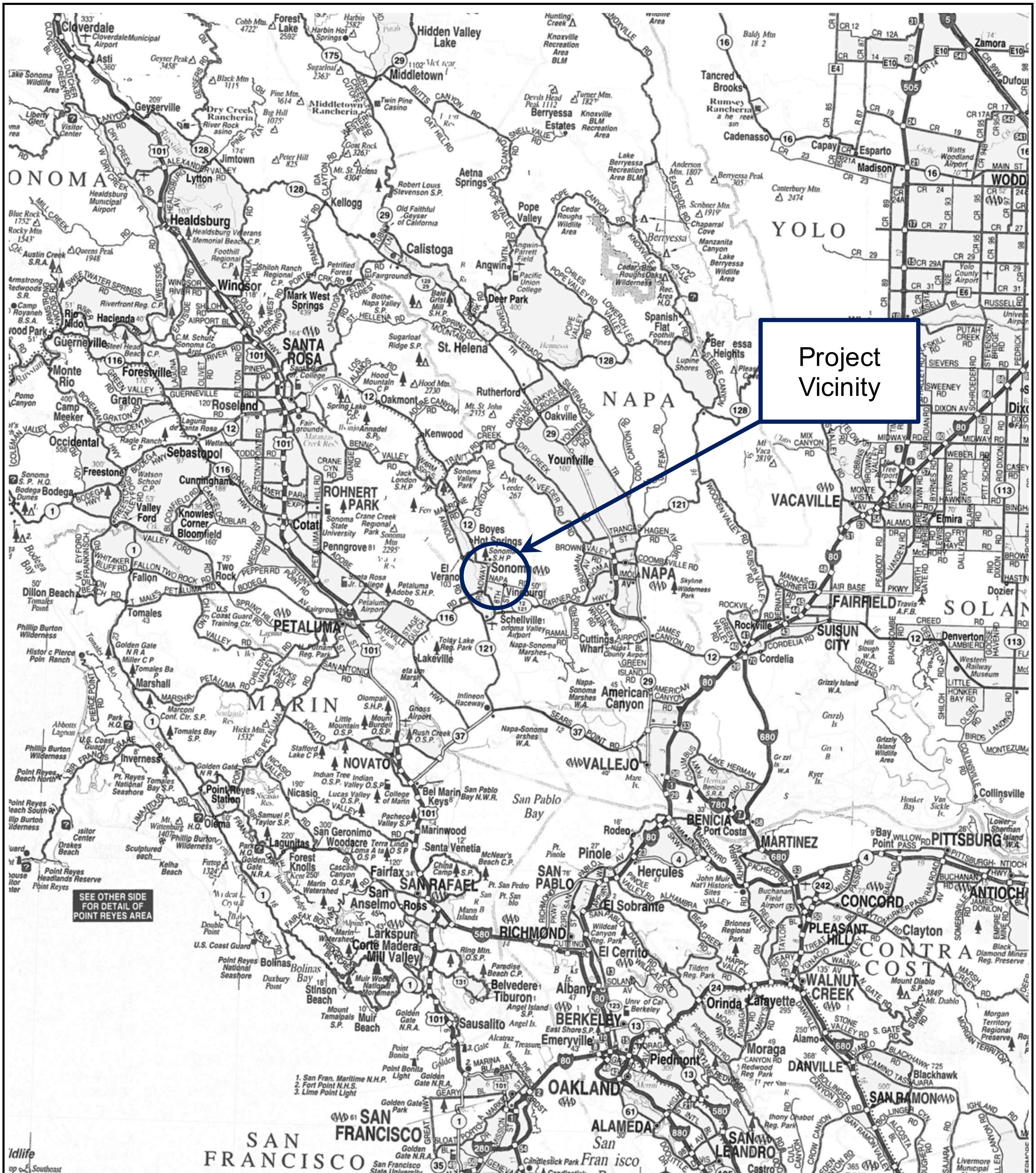

Source: California State Automobile Association

Moore Biological Consultants

N
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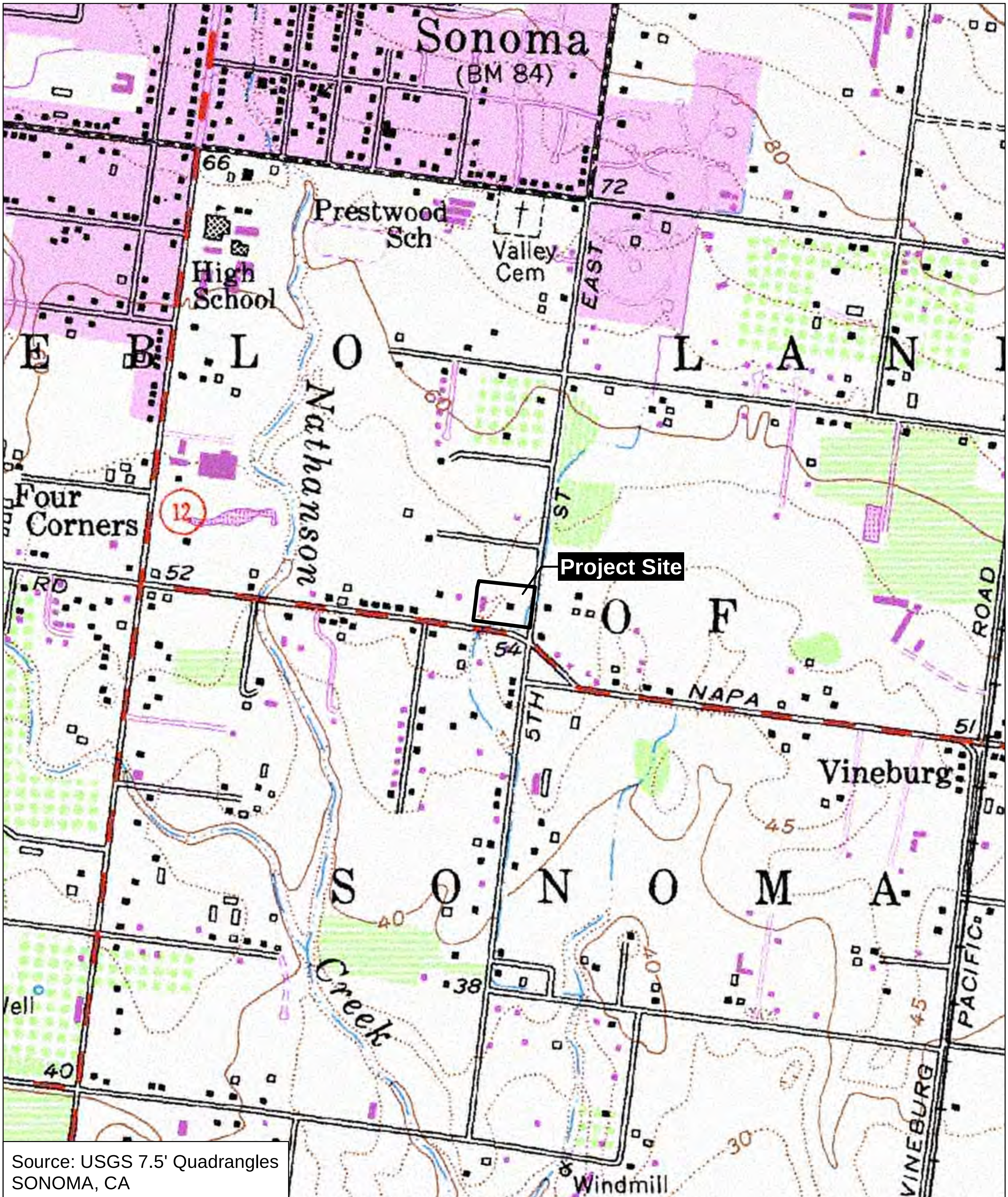
FIGURE 1

PROJECT VICINITY



Source: USGS 7.5' Quadrangles
SONOMA, CA

Figure 2

Moore Biological Consultants

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Map Date: 12/02/2019

USGS

Doyle Property

Sonoma County, CA

Figure 3

Moore Biological Consultants

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Map Date: 12/02/2019
Aerial Source: (Google Earth 09/2018)

AERIAL

Doyle Property

Sonoma County, CA

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Methods

Prior to the field surveys, we conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB, 2020); an updated search was conducted in January 2020. The CNDDB search included the USGS 7.5-minute Sonoma and Glen Ellen topographic quadrangles, which encompass approximately 120 square miles surrounding the project site. The United States Fish and Wildlife Service (USFWS) IPaC Trust Report of Federally Threatened and Endangered species that may occur in or be affected by projects in the project vicinity was also reviewed (Attachment A). This information was used to identify wildlife and plant species that have been previously documented in the project vicinity or have the potential to occur based on suitable habitat and geographical distribution. The USFWS on-line maps of designated critical habitat were also downloaded.

An initial field survey was conducted on November 22, 2019 and a follow-up survey was completed on January 10, 2020. The surveys consisted of walking throughout the site making observations of habitat conditions and noting surrounding land uses, general habitat types, and plant and wildlife species. The surveys included an assessment of the site for presence or absence of potentially jurisdictional Waters of the U.S. (a term that includes wetlands) as defined by the ACOE (1987; 2008), special-status species, and suitable habitat for special-status species (e.g., salt marshes, vernal pools). Additionally, trees in and near the site were assessed for the potential use by nesting raptors and the site was also searched for burrowing owls (*Athene cunicularia*) or ground squirrel burrows that could be utilized by burrowing owls. Areas adjacent to the site along Napa Road, 5th Street, and Jones Street were included in the survey.
To gain an understanding of regional drainage patterns, we also conducted a survey of a section of a creek to the northeast of the site and a section of a creek to the southeast of the site, as visible from public roads. We also reviewed City storm drain documents and improvement plans from 2001 and 2003 related the incorporation of the creek in to the City's storm drain system.

Results

GENERAL SETTING: The site is in Sonoma, in Sonoma County, California (Figure 1). The site is in an unnumbered Section, in Township 5 North, Range 5 West of the USGS 7.5-minute Sonoma topographic quadrangle (Figure 2). The site is essentially level and is at an elevation of approximately 45 feet above mean sea level. This residential parcel is primarily open grassland that is routinely mowed (Figure 3 and photographs in Attachment B). There are several large trees along the edges of the site, as well as surrounding the home site and a few other small structures including shops and barns.

This portion of Sonoma County is primarily residential and contains smaller areas of scattered areas of open fields, larger home parcels, and vineyards. The site is bounded by Napa Avenue on the south and 5th Street on the east. Jones Street borders the west edge of the site. There is part of a residential subdivision and a relatively larger residential parcel to the north of the site.

VEGETATION: Natural habitats surrounding the project site have been entirely replaced by streets, homes, and generally highly landscaped areas. The body of the site is primarily a periodically mowed field vegetated in upland grass and weed species. California annual grassland best describes the disturbed upland grassland vegetation in the site. Oats (*Avena* sp.), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and perennial ryegrass (*Lolium perenne*) are dominant grass species on-site. Other grassland species such as smooth cat's ear (*Hypochaeris glabra*), mustard (*Brassica* sp.), mallow (*Malva neglecta*), prickly lettuce (*Lactuca serriola*), and radish (*Raphanus sativa*) are intermixed with the grasses. A complete list of vegetation in the site is listed in Table 1.

Valley oak (*Quercus lobata*) is the dominant tree species in the site and there are also a few Fremont's cottonwood's (*Populus fremontii*), California black walnut (*Juglans californica*), and ornamental pines (*Pinus sp*.) in the site. There are

TABLE 1

PLANT SPECIES OBSERVED IN THE SITE

Aira caryophyllea	silver hairgrass
Avena sp.	oat
Baccharis pilularis	coyote brush
Brassica nigra	black mustard
Bromus diandrus	ripgut brome
Bromus hordeaceus	soft chess brome
Daucus carota	wild carrot
Epilobium brachycarpum	willowherb
Eremocarpus setigerus	dove weed
Eschscholzia californica	California poppy
Foeniculum vulgare	fennel
Hordeum murinum	foxtail barley
Hypochaeris glabra	smooth cat's ear
Juglans californicus	black walnut
Lactuca serriola	prickly lettuce
Leontodon saxatilis	hawkbit
Leymus triticoides	creeping wild rye
Lolium perenne	perennial ryegrass
Malva neglecta	common mallow
Phalaris aquatica	Harding grass
Pinus sp.	ornamental pine
Plantago lanceolate	English plantain
Populus fremontii	Fremont cottonwood
Quercus lobata	valley oak
Raphanus sativus	wild radish
Rubus discolor	Himalayan blackberry
Rumex crispus	curly dock
Rumex pulcher	fiddle dock
Torilis arvensis	field hedge parsley
Trifolium fragiferum	strawberry clover

several large trees associated with the residence in the site, most of which are non-native ornamental landscaping species (Figure 3 and photographs in Attachment B).

WILDLIFE: Only a few bird species were observed in the site during the surveys. Representative species include American crow (*Corvus brachyrhynchos*), rock dove (*Columba livia*), California scrub jay (*Aphelocoma californica*), Brewer's blackbird (*Euphagus cyanocephalus*), and downy woodpecker (*Picoides pubescens*). Table 2 is a list of wildlife observed in the site.

Some of the relatively larger trees in the site as well as other relatively large trees adjacent to and near the site are suitable for nesting raptors and other protected migratory birds. Given the presence of trees and raptor foraging habitat (i.e., open fields) in and near the site, it is possible one or more pairs of raptors, nest in trees in or near the site each year. Further, it is considered likely that a variety of songbirds nest within trees, shrubs, and grassland habitats in and adjacent to the site each year.

Only a few mammals common to urban areas have potential to occur in the site and no mammals were observed during the field surveys. A few small Botta pocket gopher (*Thomomys bottae*) burrows were observed within the grasslands in the site. Striped skunk (*Mephitis mephitis*), black-tailed hare (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), Virginia opossum (*Didelphis virginiana*), and California ground squirrels (*Spermophilus beecheyi*) are expected to occur in the project site on occasion. No ground squirrel burrows were observed in the site.

Due to lack of suitable habitat and the location of the site in town, few amphibians and reptiles are expected to use habitats in the site. No reptiles or amphibians were observed during the recent surveys. Common species such as western fence lizard (*Sceloporus occidentalis*) and Pacific chorus frog (*Pseudacris regilla*) may occur in the site.

TABLE 2

WILDLIFE SPECIES DOCUMENTED IN THE SITE

Birds	
Turkey vulture	*Cathartes aura*
Red-tailed hawk	*Buteo jamaicensis*
Rock dove	*Columba livia*
Downy woodpecker	*Picoides pubescens*
California scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Western bluebird	*Sialia mexicana*
Yellow-rumped warbler	*Setophaga coronata*
California towhee	*Melozone crissalis*
White-crowned sparrow	*Zonotrichia leucophrys*
Brewer's blackbird	*Euphagus cyanocephalus*
Mammals	
Botta's pocket gopher	*Thomomys bottae*

WATERS OF THE U.S. AND WETLANDS: Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any waters of the U.S., including wetlands. Both CDFW and ACOE have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.

“Waters of the U.S.”, as defined in 33 CFR 328.4, encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, as well as their tributaries. The limit of federal jurisdiction of Non-Tidal Waters of the U.S. extends to the “ordinary high water mark”. The ordinary high water mark is established by physical characteristics such as a natural water line impressed on the bank, presence of shelves, destruction of terrestrial vegetation, or the presence of litter and debris.

Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetlands and Waters of the U.S. provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

The body of the site is open fields vegetated in upland grasses and weeds. No vernal pools, seasonal wetlands, marshes, ponds, creeks, lakes, or any other areas meeting the technical and regulatory criteria of jurisdictional Waters of the U.S. or wetlands were observed in the site.

There is a constructed roadside ditch that is just outside of parcel boundary (see photographs in Attachment B). The ditch runs north to south on the west side of 5th Street and east to west along the north side of Napa Road. The ditch originates adjacent to the residential parcel immediately north of the site, drains south along 5th Street, continues west along Napa Road, and then drains into a pair of culverts under Napa Road. The culverts are substantially occluded with dirt and it does not appear that much, if any, water flows from the ditch adjacent to the site south and through the culverts.

Interesting, review of an historical USGS topographic map from 1951 shows a “blue-line stream” crossing diagonally through the body of the site, flowing from northeast to southwest; this creek was an un-named tributary to Schell Creek a few thousand feet southeast of the site. Sometime between 1951 and 1980, the

tributary was directed in to the ditch along the edges of the roads, as depicted in the USGS topographic map published in 1980 (see Figure 2). The channel that historically flowed through the site was likely filled at the same time. The only indication of this former drainage in the site is a gentle change in topography in the upland grasslands.

For several years, the roadside ditch along the edges of the site functioned as a realigned section of the tributary to Schell Creek, conveying flows from areas northeast of the site generally south. However, subsequent improvements to the regional storm drain system terminated the use of the ditch for conveying flows from the northeast. These improvements were identified in the City's Schell Creek Master Drainage Study that was completed in 2000 to address regional flooding concerns. The study identified parcels with development potential generally northeast of the site that could negatively impact flooding further downstream. The storm drain improvements were then completed a few years later, with developers funding much of the improvements. Upon completion of the work, the tributary to Schell Creek that historically ran along the edges of the site was entirely incorporated in to the City's storm drain system from the point where it intersects Denmark Street (2,000+/- feet northeast of the site) to where it intersects Peru Avenue (3,000+/- feet southeast of the site).

Despite being a historical tributary to Schell Creek, the constructed ditch does not meet the technical and regulatory criteria of jurisdictional Waters of the U.S. It does not have an ordinary high water mark and does not support wetland vegetation. Portions of the ditch support very little vegetation. In other areas, the bed of the ditch supports upland grasses and weeds, as well as Himalayan blackberry, which is also an upland species.

SPECIAL-STATUS SPECIES: Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Act or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve

endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species.

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2020). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on CNPS List 3.

The likelihood of occurrence of listed, candidate, and other special-status species in the site is generally low. Table 1 provides a summary of the listing status and habitat requirements of special-status species that have been documented in the greater project vicinity or for which there is potentially suitable habitat in the greater project vicinity. This table also includes an assessment of the likelihood of occurrence of each of these species in the site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
PLANTS						
Franciscan onion	*Allium peninsulare var. franciscanum*	None	None	1B	Valley and foothill grassland, cismontane woodland.	Unlikely: the site is highly disturbed and does not provide suitable habitat for Franciscan onion; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is approximately 2 miles northwest of the site.
Napa false indigo	*Amorpha californica var. napensis*	None	None	1B	Broadleafed upland forest, chaparral, cismontane woodland.	Unlikely: the site does not provide suitable habitat for this species; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of Napa false indigo in the CNDDB (2020) search area is approximately 2 miles northwest of the site.
Big-scale balsamroot	*Balsamorhiza macrolepis var. macrolepis*	None	None	1B	Chaparral, valley and foothill grassland, cismontane woodland.	Unlikely: the site does not provide suitable habitat for big-scale balsamroot; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is an undated for which the precise location is not known. It is mapped in the CNDDB in a broad area just north of the site.
Sonoma sunshine	*Blennosperma bakeri*	E	E	1B	Vernal pools, mesic areas in valley and foothill grassland.	Unlikely: the upland grassland in the site do not provide suitable habitat for Sonoma sunshine. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 0.5 miles northwest of the project site.
Narrow-anthered brodiaea	*Brodiaea leptandra*	None	None	1B	Broadleafed upland forest, chaparral, lower montane coniferous forest.	Unlikely: the site does not provide suitable habitat for this species; the site is also below the elevation range of narrow-anthered brodiaea (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is approximately 1.5 miles northeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Rincon Ridge ceanothus	*Ceanothus confusus*	None	None	1B	Closed-cone coniferous forest, chaparral, cismontane woodland.	Unlikely: the site does not provide suitable habitat for Rincon Ridge ceanothus; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is approximately 3 miles east of the site.
Sonoma ceanothus	*Ceanothus sonomensis*	None	None	1B	Chaparral on sandy serpentine or volcanic soils.	Unlikely: the site does not provide suitable habitat for Sonoma ceanothus; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is approximately 4.5 miles northeast of the site.
Dwarf downingia	*Downingia pusilla*	None	None	2	Vernal pools.	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of dwarf downingia in the CNDDB (2020) search area is approximately 2 miles southeast of the site.
Fragrant fritillary	*Fritillaria liliacea*	None	None	1B	Coastal scrub, valley and foothill grassland and coastal prairie; often serpentine soils.	Unlikely: the on-site grasslands provide poor quality habitat for fragrant fritillary; no serpentine soils were observed in the site. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 3.5 miles northwest of the site.
Congested-headed hayfield tarplant	*Hemizonia congesta ssp. congesta*	None	None	1B	Valley and foothill grassland.	Unlikely: the on-site grasslands provide poor quality habitat for congested-headed hayfield tarplant. The nearest occurrence of this species in the CNDDB (2020) search area is an historical record from 1909 for which the precise location is not known. It is mapped nonspecifically in the CNDDB in a broad area that encompasses the project site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Thin-lobed horkelia	*Horkelia tenuiloba*	None	None	1B	Broadleafed upland forest, chaparral, valley and foothill grassland; usually in mesic areas.	Unlikely: the site does not provide suitable habitat for thin-lobed horkelia; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is approximately 4.5 miles northeast of the site.
Legenere	*Legenere limosa*	None	None	1B	Vernal pools.	Unlikely: there are no vernal pools or seasonal wetlands in the project site. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 9.5 miles northwest of the project site.
Jepson's leptosiphon	*Leptosiphon jepsonii*	None	None	1B	Chaparral, cismontane woodland.	Unlikely: the site does not provide suitable habitat for Jepson's leptosiphon; the site is also below the elevation range of this species (CNPS, 2020).. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 8.5 miles northwest of the site.
Cobb Mountain lupine	*Lupinus sericatus*	None	None	1B	Chaparral, cismontane woodland, lower montane coniferous forest.	Unlikely: the site does not provide suitable habitat for Cobb Mountain lupine; the site is also below the elevation range of this species (CNPS, 2020). The nearest occurrence of Cobb Mountain lupine in the CNDDB (2020) search area is approximately 5.5 miles northeast of the site.
Oval-leaved viburnum	*Viburnum ellipticum*	None	None	2	Chaparral, cismontane woodland, and lower montane coniferous forest.	Unlikely: the site does not contain suitable habitat for this species. The site is also well below the known elevation range of oval-leaved viburnum (CNPS, 2020). The nearest occurrence of this species in the CNDDB (2020) search area is a record from 1914 for which the precise location is not known. It is mapped in the CNDDB in a broad area just northeast of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
WILDLIFE						
Birds						
Northern spotted owl	*Strix occidentalis caurina*	T	T	N/A	Mixed aged stands of old growth and mature trees; usually damp, dense, shaded forests. Occasionally found in younger forests.	Unlikely: the site does not provide suitable habitat for this species. There are no occurrences of northern spotted owl in the CNDDB (2020) search area.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	T	E	N/A	Nests in riparian forests, along the broad, lower flood-bottoms of larger river systems.	Unlikely: the site does not provide suitable habitat for this species. The nearest occurrence of western yellow-billed cuckoo in the CNDDB (2020) search area is approximately 10.5 miles northwest of the site.
White-tailed kite	*Elanus leucurus*	None	FP	N/A	Herbaceous lowlands with variable tree growth and dense population of voles.	Unlikely: white-tailed kite is unlikely to occur in such an urban setting. The nearest occurrence of white-tailed kite in the CNDDB (2020) search area is approximately 7.5 miles northwest of the site.
Bank swallow	*Riparia riparia*	None	T	N/A	Nests colonially in riparian habitats; requires vertical banks and cliffs with fine-textured soils.	Unlikely: there is no suitable nesting habitat for bank swallows in the project site. The only occurrence of this species in the CNDDB (2020) search area is an historical record from 1893 for which the precise location is not known. It is mapped in the CNDDB in a broad area that encompasses the project site.
Burrowing owl	*Athene cunicularia*	None	SC	N/A	Grasslands, deserts and scrubland; subterranean nester, dependent upon burrowing mammals.	Unlikely: no burrowing owls, evidence of past occupancy by owls, ground squirrels, or ground squirrel burrows were observed in the site during the recent field survey. The nearest occurrence of burrowing owls in the CNDDB (2020) search area is approximately 8.5 miles northwest of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
San Pablo song sparrow	*Melospiza melodia samuelis*	None	SC	N/A	Salt marshes bordering the north side of San Francisco Bay and San Pablo Bay.	Unlikely: the site does not contain suitable marsh habitat for this species. This species may fly over the site on occasion. The closest occurrence of San Pablo song sparrow in the CNDDB (2020) search area is approximately 2 miles southeast of the site.
Golden eagle	*Aquila chrysaetos*	None	FP	N/A	Nesting areas are associated with cliff-walled canyons and large trees. Forages in rolling hills and mountain areas.	Unlikely: the trees within the site provide poor quality nesting habitat for golden eagles, as they prefer ledges on cliff walls or very large trees and isolated from any type of disturbance. The nearest occurrence of golden eagle in the CNDDB (2020) search area is approximately 7.5 miles northwest of the site.
Black swift	*Cypseloides niger*	None	SC	N/A	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea bluffs above the surf; forages widely.	Unlikely: the project site does not contain suitable marsh habitat for this species. This species may fly over the site on occasion. The closest occurrence of black swift in the CNDDB (2020) search area is approximately 7 miles north of the site.
Grasshopper sparrow	*Ammodramus savannarum*	None	SC	N/A	Occurs primarily in dry densely vegetated grasslands in the eastern San Joaquin Valley and coastal foothills.	Unlikely: the project site does not contain suitable habitat for grasshopper sparrow. This species may fly over the site on occasion. The closest occurrence of grasshopper sparrow in the CNDDB (2020) search area is approximately 8 miles northwest of the site.
Yellow rail	*Coturnicops noveboracensis*	None	SC	N/A	Fresh water marshlands, summer residence in eastern Sierra Nevada in Mono County.	Unlikely: the site does not provide suitable habitat for this species. The nearest occurrence of western yellow rail in the CNDDB (2020) search area is an historical (1898) record for which the precise location is not known. It is mapped in the CNDDB in a broad area just north of the project site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Mammals						
American badger	*Taxidea taxus*	None	SC	N/A	A variety of habitat types with friable soils for digging.	Unlikely: the site does not contain burrow habitat for this species; no evidence of American badger was observed in the site. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 8 miles northwest of the site.
Pallid bat	*Antrozous pallidus*	None	SC	N/A	Open and dry habitats with rocky areas for roosting.	Unlikely: pallid bat may fly over or forage in the site on occasion. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 1 mile southwest of the site.
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	E	E	N/A	Saline emergent wetlands dominated by pickleweed.	Unlikely: the project site does not contain suitable emergent wetland habitat for this species. There are no occurrences of the Salt-marsh harvest mouse recorded in the CNDDB (2020) in the search area.
Reptiles & Amphibians						
California tiger salamander	*Ambystoma californiense*	T	T	N/A	Seasonal water bodies without fish (i.e., vernal pools and stock ponds) and grassland/ woodland habitats with summer refugia (i.e., burrows).	Unlikely: there is no suitable California tiger salamander breeding habitat in or near the site. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 10.5 miles southwest of the site. The site is not within designated critical habitat for California tiger salamander (USFWS, 2011).
California red-legged frog	*Rana aurora draytonii*	T	SC	N/A	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Unlikely: there is no suitable habitat for California red-legged frog in the project site. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 7.5 miles northwest of the site. The site is not within designated critical habitat for California red-legged frog (USFWS, 2006).

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Foothill yellow-legged frog	*Rana boylii*	None	SC	N/A	Rocky perennial streams in the Sierra and coastal foothills.	Unlikely: the site does not provide suitable habitat for foothill yellow-legged frog. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 4 miles northwest of the site.
Western pond turtle	*Emys marmorata*	None	SC	N/A	Ponds, marshes, streams, and ditches with emergent aquatic vegetation and basking areas.	Unlikely: the site does not provide suitable habitat for western pond turtle. The nearest occurrences of this species in the CNDDB (2020) search area are approximately 1 mile northwest and southwest of the site.
Green sea turtle	*Chelonia mydas*	T	None	N/A	Tropical and subtropical waters along continental coasts.	Unlikely: the site does not provide suitable habitat for this species. There are no occurrences of green sea turtle recorded in the CNDDB (2020) in the search area.
Red-bellied newt	*Taricha rivularis*	None	SC	N/A	Coastal forests; breeds in streams	Unlikely: the site does not provide suitable habitat for this species. The nearest occurrence of this species in the CNDDB (2020) is a historical record (1977) for which the precise location is not known. It is mapped in the CNDDB in a broad area approximately 7 miles northwest of the site.
California giant salamander	*Dicamptodon ensatus*	None	SC	N/A	Coastal forests; breeds in streams.	Unlikely: there is no suitable breeding habitat within or near the site for pacific giant salamander. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 3 miles northwest of the site.
Fish						
Steelhead - central California coast DPS	*Oncorhynchus mykiss irideus pop. 8*	T	None	N/A	Riffle and pool complexes with adequate spawning substrates within Central Valley drainages.	Unlikely: there is no aquatic habitat in the site. The nearest occurrence of Central Valley steelhead in the CNDDB (2020) search area is approximately 4 miles northwest of the site. The site is not within designated critical habitat for Central California coast steelhead (NOAA, 2005).

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED OR POTENTIALLY-OCCURRING IN THE PROJECT VICINITY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	Habitat	Potential for Occurrence in the Project Site
Delta smelt	*Hypomesus transpacificus*	T	T	N/A	Shallow lower delta waterways with submersed aquatic plants and other suitable refugia.	Unlikely: there is no suitable aquatic habitat in the site. There are no occurrences of this species in the CNDDB (2020) search area. The site is not within designated critical habitat for delta smelt (USFWS, 1994).
Invertebrates						
San Bruno elfin butterfly	*Incisalia mossii bayensis*	E	None	N/A	Rocky outcrops and cliffs in coastal scrub habitats.	Unlikely: the site does not provide suitable habitat for this species. There are no occurrences of San Bruno elfin butterfly recorded in the CNDDB (2020) in the search area.
California freshwater shrimp	*Syncaris pacifica*	E	None	N/A	Low-elevation perennial streams in the northern Bay Area.	Unlikely: there is no aquatic habitat in the site. The nearest occurrence of California freshwater shrimp in the CNDDB (2020) search area is approximately 2.5 miles northwest of the site.
Crotch bumble bee	*Bombus crotchiii*	None	CE	N/A	Open grassland and scrub habitats throughout California; rarely found in the Central Valley.	Unlikely: the site does not provide suitable habitat for Crotch bumble bee. The nearest occurrence of this species in the CNDDB (2020) search area is approximately 5 miles northwest of the site.
Western bumble bee	*Bombus occidentalis*	None	CE	N/A	Meadows and grasslands with abundant floral resources, usually high elevation	Unlikely: the site does not provide suitable habitat for western bumble bee. The nearest occurrence of this species in the CNDDB (2020) search area is a record from 1958 mapped just north of the site.

1 T= Threatened; E = Endangered.

2 T = Threatened; E = Endangered; FP = State of California Fully Protected Species; SC = State of California Species of Special Concern.

3 CNPS List 1B includes species that are rare, threatened, or endangered in California and elsewhere; List 2 includes plants that are rare, threatened or endangered in California but are more common elsewhere.

SPECIAL-STATUS PLANTS: Fifteen (15) species of special-status plants were identified in the CNDDB (2020) search: Franciscan onion (*Allium peninsulare var. franciscanum*), Napa false indigo (*Amorpha californica var. napensis*), big-scale balsamroot (*Balsamorhiza macrolepis var. macrolepis*), Sonoma sunshine (*Blennosperma bakeri*), narrow-anthered brodiaea (*Brodiaea leptandra*), Rincon Ridge ceanothus (*Ceanothus confusus*), Sonoma ceanothus (*Ceanothus sonomensis*), dwarf downingia (*Downingia pusilla*), fragrant frittilary (*Fritillaria liliacea*), congested-headed hayfield tarplant (*Hemizonia congesta ssp. congesta*), thin-lobed horkelia (*Horkelia tenuiloba)*, legenere (*Legenere limosa*), Jepson's leptosiphon (*Leptosiphon jepsonii*), Cobb Mountain lupine (*Lupinus sericatus*), and oval-leaved viburnum (*Viburnum ellipticum*). (Table 3 and Attachment A). Sonoma sunshine, which is also in the CNDDB (2020), is the only special-status plant in the USFWS IPaC Trust Report.

No special-status plants or suitable habitat for special-status plants were observed in the site. Special-status plants generally occur in relatively undisturbed areas in vegetation communities such as chaparral, vernal pools, marshes and swamps, seasonal wetlands, and areas with unusual soils. Most of the species in Table 3 occur in one of these unique habitat types that are not present on-site. In contrast, the site is disturbed upland grassland that is not suitable for any special-status plant species. Due to lack of suitable habitat, it is unlikely that special-status plants occur in the site.

SPECIAL-STATUS WILDLIFE: The potential for intensive use of the site by special-status wildlife species is low. Special-status wildlife species recorded in project area in the CNDDB (2020) query include northern spotted owl (*Strix occidentalis caurina*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), white-tailed kite (*Elanus leucurus*), bank swallow (*Riparia riparia*), burrowing owl, San Pablo song sparrow (*Melospiza melodia samuelis*), golden eagle (*Aquila chrysaetos*), black swift (*Cypseloides niger*), grasshopper sparrow (*Ammodramus savannarum*), yellow rail (*Coturnicops noveboracensis*), American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), California tiger

salamander (*Ambystoma californiense*), California red-legged frog (*Rana auroura draytonii*), foothill yellow-legged frog (*Rana boylii*), western pond turtle (*Emys marmorata*), red-bellied newt (*Taricha rivularis*), California giant salamander (*Dicamptodon ensatus*), Central Coast steelhead (*Oncorhynchus mykiss irideus pop.8*), California freshwater shrimp (*Syncaris pacifica*), Crotch bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis*). Salt-marsh harvest mouse (*Reithrodontomys raviventris*), green sea turtle (*Chelonia mydas*), San Bruno elfin butterfly (*Callophrys mossii bayensis*) and delta smelt (*Hypomesus transpacificus*) are not recorded in the CNDDB (2020) within the search area, but are on the USFWS IPaC Trust Report (Attachment A).

While the project site may have provided habitat for special-status wildlife species at some time in the past, development has substantially modified natural habitats in the greater project vicinity, including those within the site. The site is functionally an infill parcel, of which the habitat suitability for special-status wildlife species has been greatly reduced by past residential use of the site and surrounding development. None of the wildlife species identified in the CNDDB have the potential to occur in the site on more than a transitory or very occasional basis. A few special-status birds may fly over the area on occasion, but would not be expected to nest in or adjacent to the project site. For example, the site does not contain forest habitat for nesting northern spotted owl or riparian forests for nesting western yellow-billed cuckoo. The site does not contain the other unique habitats required by most of the remaining birds in Table 3. While the site contains trees that are potentially suitable for nesting white-tailed kite, this species, which prefers expansive grasslands adjacent to nest trees, is unlikely to nest in such an urban setting.

There are no emergent wetlands in the site for salt-marsh harvest mouse. Special-status bats may also fly over the area on occasion, but would not be expected to roost in the site. The site does not provide aquatic habitat for Central Coast steelhead, delta smelt, any other species of special-status fish, or California freshwater shrimp. The site also does not provide aquatic habitat

required by California red-legged frog, foothill yellow-legged frog, California tiger salamander, California giant salamander, red-bellied newt, green sea turtle, or western pond turtle. The site does not provide suitable denning habitat for American badger and there is no coastal scrub habitat in the site for San Bruno elfin butterfly. The site lacks the floristic requirements for intensive use by special-status bee species.

CRITICAL HABITAT: The site is not in designated critical habitat of any federally listed species (Attachment C). There is a polygon of designated critical habitat for California red-legged frog (USFWS, 2006) several miles west of the site a polygon of designated critical habitat for Northern spotted owl (USFWS, 2012) a few miles northeast of the site (Attachment C). Several rivers and creeks in the area are designated critical habitat for Central Coast steelhead (NOAA, 2005).

Conclusions and Recommendations

- The site is primarily disturbed upland grasslands with numerous trees. There is a single residence and a few smaller shed and storage structures in the site. There are no sensitive habitats in the site; the site is biologically unremarkable.

- There are no potentially jurisdictional Waters of the U.S. or wetlands in or adjacent to the site. A tributary to Schell Creek that historically ran along the edges of the site was entirely incorporated in to the City's storm drain system almost two decades ago.

- Due to a lack of suitable habitat, it is unlikely that special-status plants occur in the site.

- Due to a lack of suitable habitat and location in an urban setting, no special-status wildlife species are expected to occur in or near the site on more than an occasional basis.

- The site is not within designated critical habitat for any federally listed species.

- The tree and grasslands in the site may be used by nesting birds protected by the Migratory Bird Treaty Act of 1918 and Fish and Game Code of California. If vegetation removal and/or project construction occurs between February 1 and August 31, a pre-construction nesting bird survey is recommended. If active nests are found within the survey area, vegetation removal and/or project construction should be delayed until a qualified biologist determines nesting is complete.

We hope this information is useful. Please call me at (209) 745-1159 with any questions.

Sincerely,

Diane S. Moore, M.S.
Principal Biologist

References and Literature Consulted

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USFWS. 2011. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Sonoma County Distinct Population Segment of California Tiger Salamander; Final Rule. Federal Register Vol. 76, No. 1692, August 31, 2011, pp. 54346 – 54372.

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Attachment A

CNDDB Summary Report and Exhibits

& USFWS IPaC Trust Resource Report

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

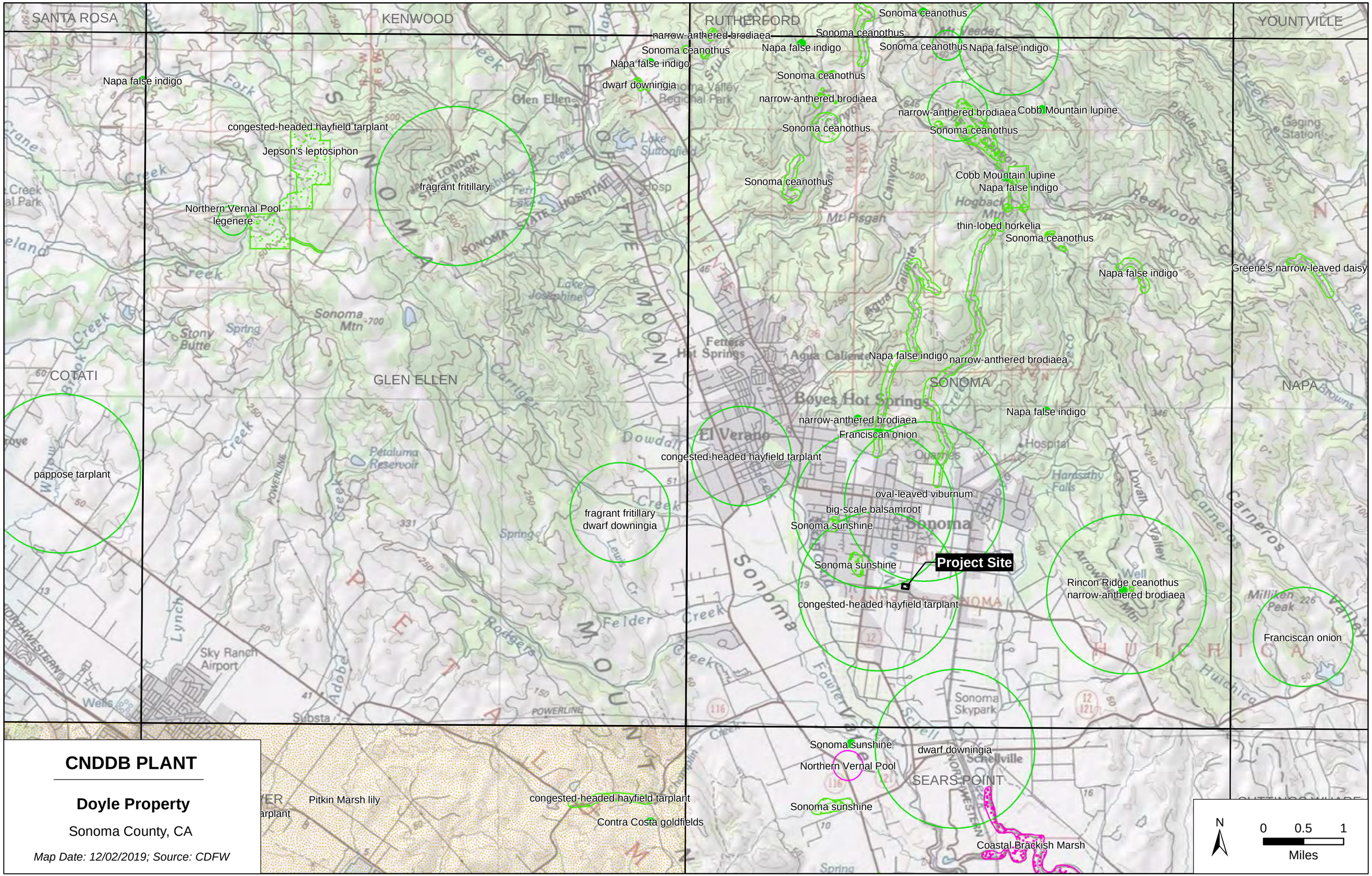
Query Criteria: Quad IS (Glen Ellen (3812235) OR Sonoma (3812234))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Allium peninsulare var. franciscanum Franciscan onion	PMLIL021R1	None	None	G5T2	S2	1B.2
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Amorpha californica var. napensis Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Blennosperma bakeri Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Brodiaea leptandra narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Caecidotea tomalensis Tomales isopod	ICMAL01220	None	None	G2	S2S3	
Ceanothus confusus Rincon Ridge ceanothus	PDRHA04220	None	None	G1	S1	1B.1
Ceanothus sonomensis Sonoma ceanothus	PDRHA04420	None	None	G2	S2	1B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	PDAST4R065	None	None	G5T2	S2	1B.2
Horkelia tenuiloba thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Leptosiphon jepsonii Jepson's leptosiphon	PDPLM09140	None	None	G2G3	S2S3	1B.2
Lupinus sericatus Cobb Mountain lupine	PDFAB2B3J0	None	None	G2?	S2?	1B.2
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
Myotis thysanodes fringed myotis	AMACC01090	None	None	G4	S3	
Myotis volans long-legged myotis	AMACC01110	None	None	G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Northern Vernal Pool Northern Vernal Pool	CTT44100CA	None	None	G2	S2.1	
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Syncaris pacifica California freshwater shrimp	ICMAL27010	Endangered	Endangered	G2	S2	
Taricha rivularis red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 45

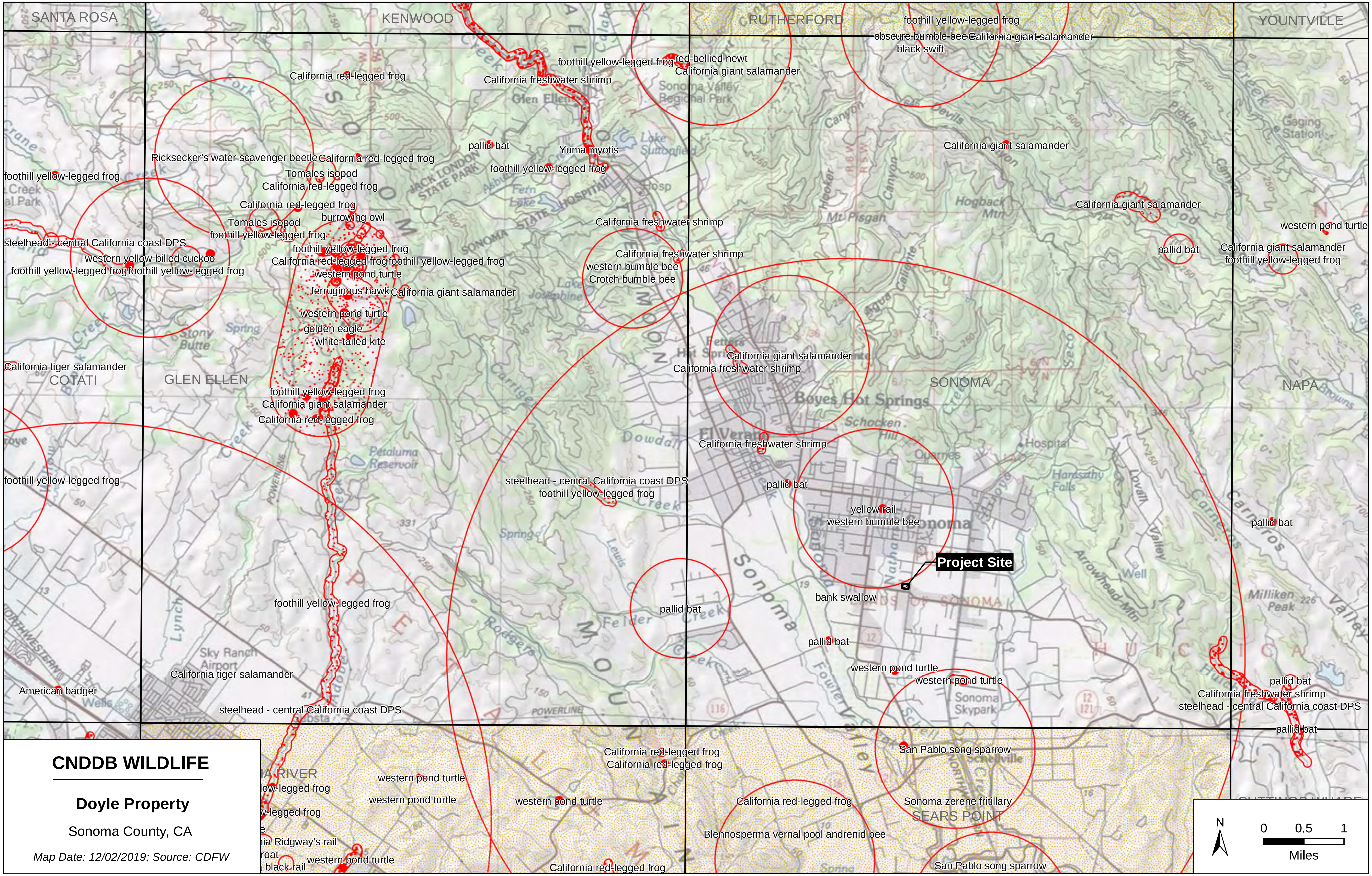


CNDDB PLANT

Doyle Property

Sonoma County, CA

Map Date: 12/02/2019; Source: CDFW


CNDDB WILDLIFE
Doyle Property
Sonoma County, CA
Map Date: 12/02/2019; Source: CDFW
Project Site
N
0 0.5 1
Miles
SANTA ROSA
KENWOOD
RUTHERFORD
YOUNTVILLE
COTATI
GLEN ELLEN
SONOMA
NAPA
SEARS POINT
California red-legged frog
California freshwater shrimp
foothill yellow-legged frog
red-bellied newt
California giant salamander
obscure bumble bee
black swift
Ricksecker's water scavenger beetle
Tomales isopod
burrowing owl
steelhead - central California coast DPS
western yellow-billed cuckoo
western pond turtle
ferruginous hawk
golden eagle
white-tailed kite
pallid bat
Yuma myotis
western bumble bee
Crotch bumble bee
California tiger salamander
American badger
yellow rail
bank swallow
San Pablo song sparrow
Sonoma zerene fritillary
Blennosperma vernal pool andrenid bee
Boyes Hot Springs
El Verano
Sonoma Valley Regional Park
Jack London State Park
Sonoma State Hospital
Petaluma Reservoir
Sky Ranch Airport
Sonoma Skypark
Hogback Mtn
Mt Pisgah
Milliken Peak
Arrowhead Mtn

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

IPaC resource list

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

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

Location

Sonoma County, California

Local office

Sacramento Fish And Wildlife Office

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

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

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

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

Listed species[1] 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.
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:

Mammals

NAME	STATUS

Salt Marsh Harvest Mouse Reithrodontomys raviventris — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/613

Birds

NAME	STATUS
Northern Spotted Owl Strix occidentalis caurina There is **final** critical habitat for this species. Your location is outside 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 There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

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

Insects

NAME	STATUS
San Bruno Elfin Butterfly Callophrys mossii bayensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Crustaceans

NAME	STATUS

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

Flowering Plants

NAME	STATUS
Sonoma Sunshine Blennosperma bakeri	Endangered

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1260

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

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

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

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

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

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list

will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
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
Burrowing Owl Athene cunicularia 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/9737	Breeds Mar 15 to Aug 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

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

Long-billed Curlew Numenius americanus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5511

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

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 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/4243

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Whimbrel Numenius phaeopus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9483

Wrentit Chamaea fasciata Breeds Mar 15 to Aug 10

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

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.

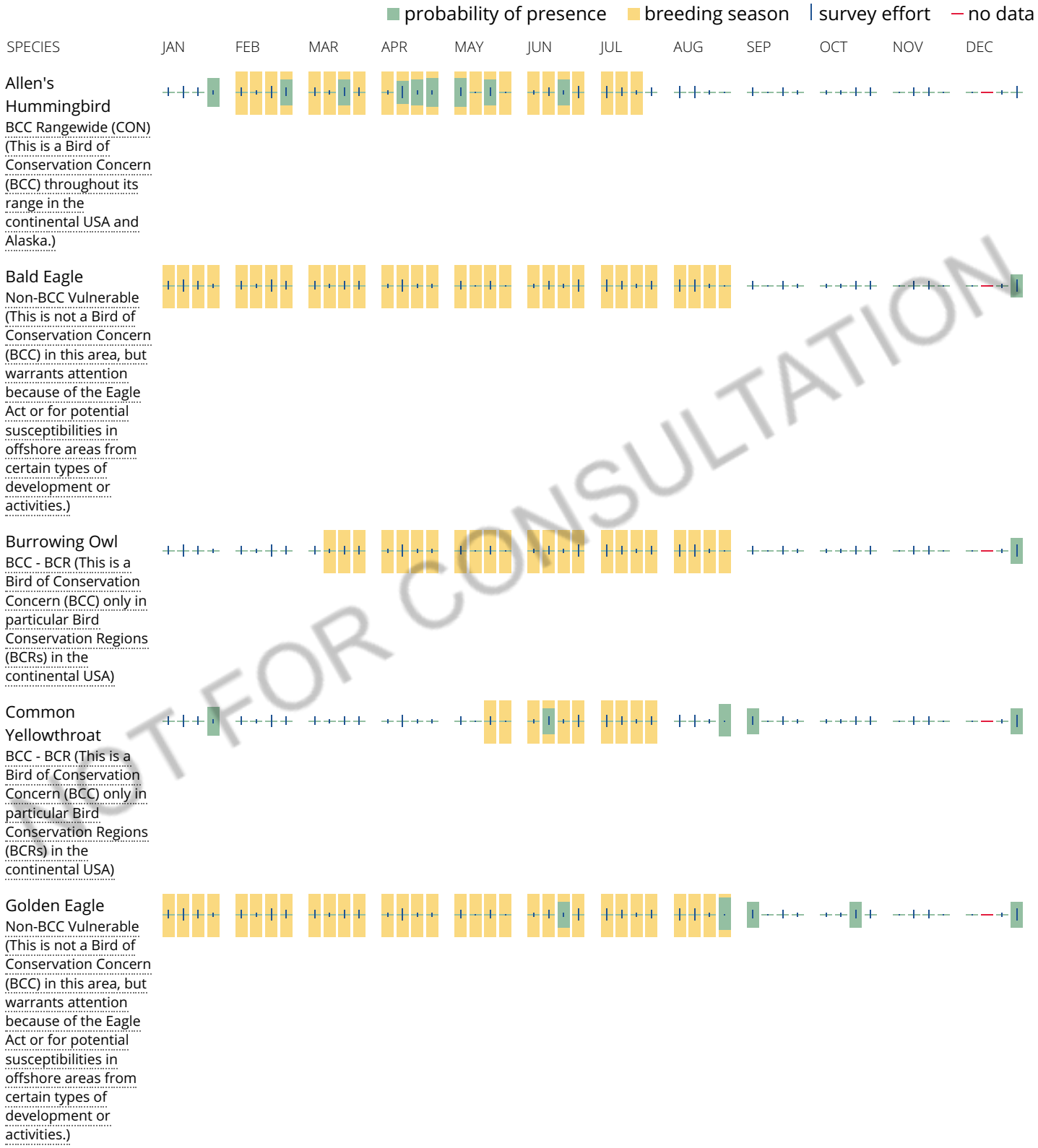
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

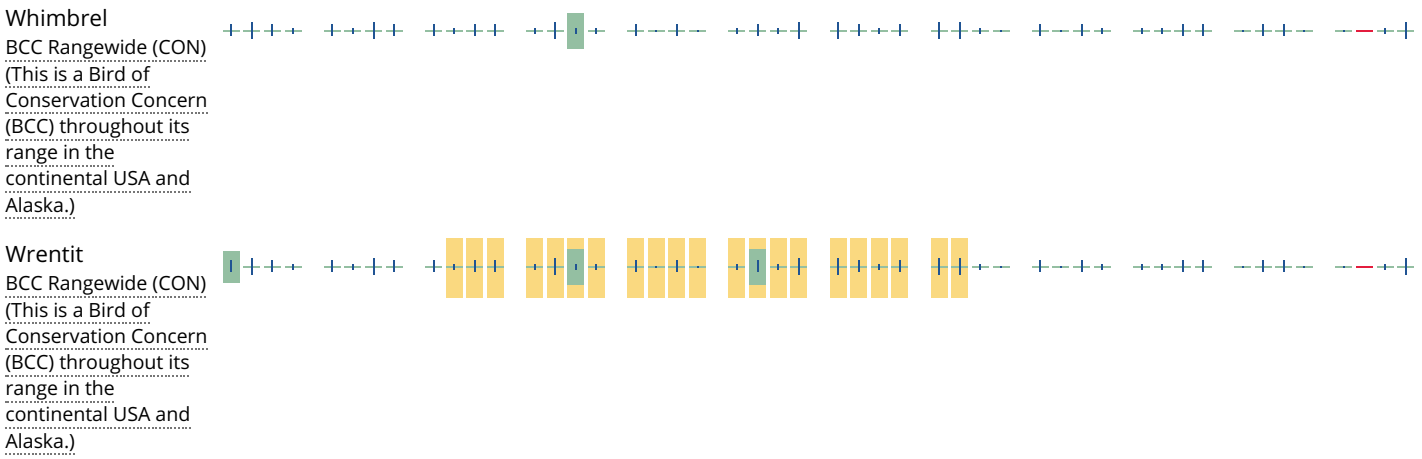
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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 and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

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.

Attachment B

Photographs

Ruderal grassland area in the southwest part of the site, looking north from the southwest part of the site; 11/22/19.

Open grassland area in the north part of the site, looking east from the northwest part of the site; 11/22/19.

Trees and structures surrounding the residence in the site, looking southwest from the northeast corner of the site; 11/22/19.

Trees and small storage sheds in the southwest corner of the site, looking southwest from the north part of the site; 11/22/19.

South edge of the site, looking west from near the southeast corner of the site; 11/22/19.

West edge of the site, looking north from the southwest corner of the site; 11/22/19.

Napa Road, looking west from the intersection of Napa Street and 5th Street; 11/22/19. There may need to be road widening along Napa Road to accomodate construction of the proposed project.

Jones Street adjacent to the west edge of the site, looking north from near the intersection of Jones Street and Napa Road; 11/22/19. This road may need to widened to accommodate the proposed project.

Roadside ditch just east of the east edge of the site, looking north along 5th Street from the entry of the site along the east edge; 11/22/19.

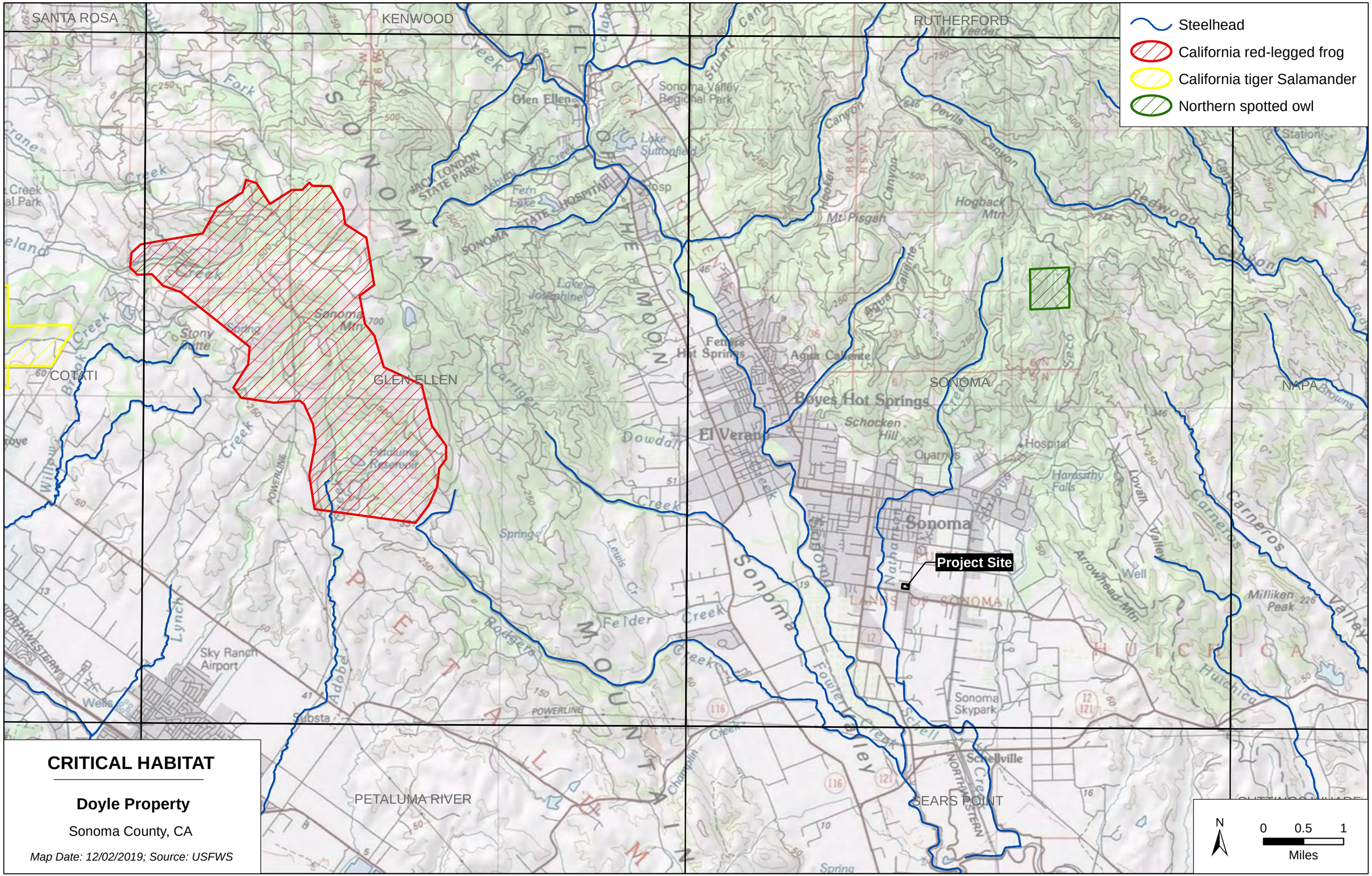
Roadside ditch just south of the south edge of the site, looking west down the ditch from the intersection of Napa Road and 5th Street; 11/22/19. This roadside ditch drains into the culvert under Napa Road.

Dual culverts under Napa Road, just south of the south edge of the site, looking southwest; 11/22/19. Historically, a creek flowed through the site into this culvert. The creek has been relocated and the culverts no longer convey creek flows.

There is a weak signature of a historic creek that previously flowed through the site, looking south from the approximate center of the site; 11/22/19. This creek has not been apparent for several decades.

Attachment C

Designated Critical Habitat



CRITICAL HABITAT

Doyle Property

Sonoma County, CA

Map Date: 12/02/2019; Source: USFWS