

EXHIBIT C
AREAS OF BIOLOGICAL WEALTH

As stated in Arizona Administrative Code R14-3-219:

Describe any areas in the vicinity of the proposed site or route which are unique because of biological wealth or because they are habitats for rare and endangered species. Describe the biological wealth or species involved and state effects, if any, the proposed facilities will have thereon.

Methods

The U.S. Fish and Wildlife Service (USFWS) and the Arizona Game and Fish Department (AGFD) were solicited for information regarding the potential occurrence of special status species within the Project Study Area (PSA). The PSA is defined as the entire proposed overhead segment and new RS-28 Substation as well as all areas within a 1,000-foot buffer of these Project components. Special status plant and wildlife species are subject to regulations under the authority of federal and state agencies. Special status species that could be associated with the proposed High-Tech Interconnect Project (HIP or Project) include those species that are listed by the USFWS under the Endangered Species Act of 1973 (ESA), Section 4, as amended; protected by USFWS under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA); protected as Birds of Conservation Concern (BCCs); listed as Wildlife of Special Concern by the AGFD; or protected under the Arizona Native Plant Law (Arizona Department of Agriculture [AZDA]). Descriptions of these regulations are summarized below:

- The ESA protects species listed as endangered or threatened from incidental or intentional “take.” Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Incidental take is an unintentional, but not unexpected, taking. When a species is listed as endangered or threatened, take prohibitions are automatically extended to it under the ESA, Section 9. Endangered species, protected under the ESA, are those species in danger of extinction throughout all or a significant portion of their range. Threatened species, protected under the ESA, are those species likely to become endangered in the foreseeable future. Proposed species are those species recommended for listing under Section 4 of the ESA. Candidate species are those species for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA but has precluded the development of a proposed listing regulation because of other higher priority listing activities. Candidate species are not protected under the ESA.
- The BGEPA prohibits anyone without a permit issued by the USFWS from “taking” bald and golden eagles including their parts, nests, or eggs. The Act defines “take” as “pursue, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” For the purposes of these guidelines “disturb” means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: injury to an eagle; or a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

- BCCs are identified as migratory and non-migratory birds (beyond those already identified as federally threatened or endangered under the ESA) that represent the highest conservation priorities.
- USFWS Species of Concern is an informal term that refers to those species that the USFWS believes may be in need of concentrated conservation actions. Conservation actions, such as monitoring, vary depending on the health of the populations and degree and types of threats. USFWS Species of Concern receive no legal protection under the ESA and the use of the term does not necessarily mean that the species would eventually be proposed for listing as a threatened or endangered species.
- AGFD Species of Greatest Conservation Need (SGCN) are species determined to be vulnerable in at least one of the following eight criteria: extirpated from Arizona, federal or state status, declining status, disjunct status, demographic status, concentration status, fragmentation status, and distribution status, as described by the AGFD's listing of Wildlife of Special Concern in Arizona (WSCA, updated July 1, 2021).
- AZDA Highly Safeguarded or Salvage Restricted Native Plants identifies special status plants that are protected under the Arizona Native Plant Law (NPL) and fall into these categories: Highly Safeguarded (no collection allowed); Salvage Restricted (collection allowed only with permit); Export Restricted (transport out of state prohibited); Salvage Assessed (permits required to remove live trees); and Harvest Restricted (permits required to remove plant by-products).

The USFWS Information for Planning and Consulting (IPaC) was accessed and the USFWS generated a report listing proposed, candidate, threatened, and endangered species and other resources that could potentially occur within the PSA (USFWS 2021). In addition, the AGFD has also published a list of special status species that could occur in each county in Arizona (AGFD 2021a) as well as a list of species occurrences for each county (AGFD 2021b), see **Exhibit C-1**. These lists were consulted to identify species that could potentially be present in the vicinity of the Project. **Table C-1** presents the special status species potentially occurring within Maricopa County (where the Project is located) listed by common name, scientific name, and status.

The USFWS IPaC has identified zero plant species and seven wildlife species (one mammal, one fish, three birds, zero amphibians, one insect and one reptile) with federal status that have the potential to occur within the PSA as well as 10 BCCs and 2 birds protected by the BGEPA. The AGFD special status species list and AGFD on-line Project Evaluation Program (PEP) have identified 21 plant species and 74 wildlife species (18 mammals, 10 fish, 24 birds, six amphibians, three invertebrates, and 13 reptiles) with special status that have the potential to occur within Maricopa County.

An AGFD on-line PEP search was completed for the Project on August 10, 2021 (AGFD 2021c). The information provided in the PEP is used to guide preliminary decisions and assessments of proposed land development, management, and conservation projects, while incorporating fish and wildlife resource needs or features. The PEP indicated that there are two special status wildlife species that are known to occur within three miles of the PSA (two birds) and one Special Area: Gila River Indian Community.

Prior to conducting the desktop and field analysis, the ecology and habitat requirements of various species that could occur in the county were researched. The same qualified biologist that conducted

the on-ground field reconnaissance evaluated the PSA and nearby areas using digital and aerial photography. The information was used to evaluate the potential effects of Project implementation on special status species within the vicinity of the Project.

Results of Reconnaissance Surveys

The analysis determined that overall habitat quality, plant diversity, and density are very low. The Project segments and RS-28 Substation contain no native habitats and are comprised entirely of disturbed urban habitat (e.g., existing roads, existing transmission lines, business centers, graded fields). The larger PSA also contains no native habitat types. Vegetation is comprised mostly of disturbed urban habitat (e.g., existing roads, railroad tracks, residential housing, business centers), existing agriculture, and landscape plants that are associated with roadways and residential areas. Most of the lands within the PSA are used or were historically used for agriculture, and most have been converted for residential, industrial, and commercial uses, with the exception of several remaining agricultural fields in the vicinity of the PSA. The PSA does not contain any native habitats and elevations range from 1,178 to 1,225 feet. Vegetation communities found within the PSA are described below:

Disturbed Urban Habitat

The PSA contains graded areas, transmission lines, roadways, and a railroad track that bisect or run between residential, agricultural, industrial, and commercial areas. The areas within road, transmission line corridors, and railroad rights-of-way (ROW) have been disturbed by initial construction and on-going maintenance activities. Residential, commercial and industrial developments, and roadside landscaping exist within and adjacent to the corridor. There are scattered and isolated native plants and landscaped plants along the roads, including blue palo verde (*Cercidium floridum*) and honey mesquite (*Prosopis glandulosa*), as well as non-native decorative and shade trees, tamarisk (*Tamarix ramosissima*) and other non-native grasses and shrubs. These landscaped areas occur outside the areas that would be impacted by construction activities.

The Project segments and the RS-28 Substation where construction activities would occur are within these disturbed urban habitats. They run along existing roads, existing transmission line ROWs, disturbed areas associated with the Intel Ocotillo Campus, disturbed areas associated with the Schrader Substation, and the vacant disturbed parcel owned by Salt River Project Agricultural Improvement and Power District (SRP) adjacent to the Schrader Substation.

Agriculture – Active

There are no active agricultural areas within Project segments and the RS-28 Substation where construction activities will occur. The larger PSA supports small isolated areas of active agricultural lands to the west of Old Price Road on the Gila River Indian Community land, most of which are growing alfalfa or are currently fallow. Irrigation canals and head ditches are common. These lands have been used for agriculture for many years and are mostly surrounded by residential and commercial areas.

Agriculture – Remnant

There are no remnant agricultural areas within Project segments and the RS-28 Substation where construction activities will occur. The larger PSA supports small isolated areas of remnant agricultural lands that have not been farmed recently but remain highly disturbed. Vegetation is

scattered and common species include Russian thistle (*Salsola tragus*), halogeton (*Halogeton glomeratus*), Mediterranean grass (*Schismus arabicus* and *S. barbatus*), red brome (*Bromus madritensis* ssp. *rubens*), fiddleneck (*Amsinckia* spp.), and plantago (*Plantago* spp.).

Findings

Threatened, Endangered, and Sensitive Plant Species

The USFWS and AGFD lists referenced earlier were consulted to provide a basis for protected species that might be present in the vicinity of the Project. **Table C-1** represents the special status species potentially occurring within the area, listed by common name, scientific name, and status.

The USFWS has identified two plant species listed as endangered under the ESA and six plant species of concern and the AGFD has identified 20 plant species that are protected under Arizona Native Plant Law that have the potential to occur within Maricopa County.

Based on field reconnaissance, there appear to be no suitable habitats for the federally listed endangered plants or plants protected by the Arizona Native Plant Law within the PSA, and none of these protected species are known to occur within three miles of the PSA (USFWS 2021; AGFD 2021c).

Threatened, Endangered, and Sensitive Wildlife Species

The USFWS has identified 14 wildlife species (two mammals, five fish, five birds, one amphibian, and one reptile) protected under the ESA, one ESA candidate invertebrate species, 23 species of concern (eight mammals, five fish, five birds, two amphibians, two invertebrates, and one reptile), two BGEPA protected species, and 10 BCCs and the AGFD has identified 72 wildlife species (18 mammals, 10 fish, 24 birds, six amphibians, one invertebrate, and 13 reptiles) with special status that have the potential to occur within Maricopa County.

There is no suitable habitat for federally threatened, endangered, or candidate wildlife species in the PSA. There is potentially suitable habitat for several special status bird species that have the potential to occur within the PSA. There is potentially suitable habitat for one bird species that also has documented occurrences per the AGFD PEP – the western burrowing owl (*Athene cunicularia hypugaea*, USFWS Species of Concern and AGFD SGCN 1B). This species also receives federal protection by the USFWS under the MBTA and by Arizona state law (Arizona Revised Statutes [ARS] Title 17). The AGFD PEP also identified the Sonoran Desert population of bald eagles (*Haliaeetus leucocephalus* pop. 3) as having documented occurrences within three miles of the PSA.

Western burrowing owl has documented occurrences within three miles of the PSA (AGFD 2021c), but none were observed during the field reconnaissance. The active and remnant agricultural lands in the PSA provide potential habitat for western burrowing owl and the likelihood of occurrence for this species within the PSA is moderate. Due to the lack of native habitats and the level of disturbance associated with all areas within the limits of construction, the likelihood of occurrence within construction areas is low due to the lack of nesting and foraging habitat.

The PEP report indicates that there are known occurrences of the Sonoran Desert population of bald eagles within three miles of the PSA. There is a known bald eagle breeding area located along the Existing Henshaw Substation to Intel segment of the Project. This nest has been known to be active during recent breeding seasons. The area in the vicinity of the nest is heavily disturbed with high levels of agricultural activities, vehicle traffic, and activities associated with the Intel Ocotillo Campus. There is potentially suitable foraging habitat in the vicinity of the nest in agricultural fields and within nearby urban lakes. No bald eagles were observed during the field reconnaissance survey, which was conducted outside the breeding season. Should the nest be active during construction activities, proposed measures, including biological monitoring of the nest during breeding season (**Table C-2**), will be taken to avoid impacts to bald eagles throughout the breeding season.

There is potentially suitable habitat for four other special status bird species within the PSA; savannah sparrow (*Passerculus sandwichensis*, AGFD SGCN 1B), American peregrine falcon (*Falco peregrinus anatum*, USFWS Species of Concern and AGFD SGCN 1A), Gila woodpecker (*Melanerpes uropygialis*, AGFD SGCN 1B), and Lawrence's goldfinch (*Spinus lawrencei*, USFWS BCC). All of these birds may use urban, residential, and/or agricultural areas for foraging and/or nesting. Savannah sparrows and Lawrence's goldfinches may be found during the winter (nonbreeding season) foraging in active and fallow agricultural fields and other open vegetated areas within the PSA, but there is no suitable foraging habitat within construction areas; they are migratory and are unlikely to nest within the PSA. Low-quality foraging habitat for American peregrine falcons is found within the PSA but there is no foraging habitat within construction areas; there is no suitable nesting habitat within the PSA. Gila woodpeckers are cavity nesters and may use landscape saguaro cactus and large residential trees for nesting and foraging within the PSA, but there is no foraging or nesting habitat within construction areas. None of these species were observed during the field reconnaissance survey.

There is no suitable habitat and/or the PSA is not within the appropriate elevation ranges for the remainder of the special status species identified by the USFWS and AGFD for Maricopa County. Therefore, the potential for occurrence of these species within or in the vicinity of the PSA is highly unlikely (**Table C-1**).

Exhibit C – Areas of Biological Wealth

**Table C-1
Special Status Species with the Potential to Occur in Maricopa County**

Species		Protection Status ¹		Potential to Occur in Project Study Area (Justification) ⁴
Common name	Scientific name	ESA ^{2, 3}	Arizona SGCN ³	
Plants				
Pima Indian Mallow	<i>Abutilon parishii</i>	SC	SR	No (Elevation)
Tonto Basin Agave	<i>Agave delamateri</i>	SC	HS	No (Habitat)
Hohokam Agave	<i>Agave murpheyi</i>	SC	HS	No (Habitat)
Toumey Agave	<i>Agave toumeyana var. bella</i>	--	SR	No (Elevation)
Arizona Agave	<i>Agave x arizonica</i>	--	HS	No (Elevation)
Bigelow Onion	<i>Allium bigelovii</i>	--	SR	No (Elevation)
Yavapai Hedgehog Cactus	<i>Echinocereus yavapaiensis</i>	--	SR	No (Habitat)
Acuna Cactus	<i>Echinomastus erectocentrus var. acunensis</i>	E	HS	No (Habitat)
Johnson's Fishhook Cactus	<i>Echinomastus johnsonii</i>	--	SR	No (Habitat)
Fish Creek Fleabane	<i>Erigeron piscaticus</i>	SC	SR	No (Elevation)
Ripley Wild-buckwheat	<i>Eriogonum ripleyi</i>	SC	SR	No (Elevation)
Desert Barrel Cactus	<i>Ferocactus cylindraceus</i>	--	SR	No (Habitat)
Emory's Barrel Cactus	<i>Ferocactus emoryi</i>	--	SR	No (Habitat)
Flannel Bush	<i>Fremontodendron californicum</i>	--	SR	No (Elevation)
Varied Fishhook Cactus	<i>Mammillaria viridiflora</i>	--	SR	No (Elevation)
Straw-top Cholla	<i>Opuntia echinocarpa</i>	--	SR	No (Habitat)
Cactus Apple	<i>Opuntia engelmannii var. flavispina</i>	--	SR	No (Elevation)
Roosevelt Dam Rockdaisy	<i>Perityle saxicola</i>	SC	--	No (Elevation)
Arizona Cliff Rose	<i>Purshia subintegra</i>	E	HS	No (Elevation)
Organ Pipe Cactus	<i>Stenocereus thurberi</i>	--	SR	No (Habitat)
Tumamoc Globeberry	<i>Tumamoca macdougalii</i>	--	SR	No (Habitat)
Mammals				
Harris' Antelope Squirrel	<i>Ammonospermophilus harrisi</i>	--	1B	No (Habitat)
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	E	1A	No (Habitat)
Pale Townsend's Big-eared Bat	<i>Corynorhinus townsendii pallescens</i>	SC	1B	No (Elevation)
Spotted Bat	<i>Euderma maculatum</i>	SC	1B	No (Habitat)
Greater Western Bonneted Bat	<i>Eumops perotis californicus</i>	SC	1B	No (Habitat)
Western Red Bat	<i>Lasiurus blossevillii</i>	--	1B	No (Elevation)
Western Yellow Bat	<i>Lasiurus xanthinus</i>	--	1B	No (Habitat)
Lesser Long-nosed Bat	<i>Leptonycteris curasoae yerbabuena</i>	SC	1A	No (Habitat)
Antelope Jackrabbit	<i>Lepus alleni</i>	--	1B	No (Habitat)
California Leaf-nosed Bat	<i>Macrotus californicus</i>	SC	1B	No (Habitat)
Arizona Myotis	<i>Myotis occultus</i>	SC	1B	No (Habitat)
Cave Myotis	<i>Myotis velifer</i>	SC	1B	No (Habitat)
Yuma Myotis	<i>Myotis yumanensis</i>	SC	1B	No (Habitat)
Pocketed Free-tailed Bat	<i>Nyctinomops femorosaccus</i>	--	1B	No (Habitat)
Arizona Pocket Mouse	<i>Perognathus amplus</i>	--	1B	No (Habitat)
Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	--	1B	No (Habitat)
Kit Fox	<i>Vulpes macrotis</i>	--	1B	No (Habitat)
Jaguar	<i>Panthera onca</i>	E	1A	No (Habitat)
Birds				
Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	T	1A	No (Habitat)
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	SC	1B	Yes (None Observed)

Exhibit C – Areas of Biological Wealth

**Table C-1
Special Status Species with the Potential to Occur in Maricopa County**

Species		Protection Status ¹		Potential to Occur in Project Study Area (Justification) ⁴
Common name	Scientific name	ESA ^{2, 3}	Arizona SGCN ³	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC, BGEPA	1A	Yes (nest on adjacent Gila River Indian Community lands)
Yuma Ridgway's Rail	<i>Rallus longirostris yumanensis</i>	E	1A	No (Habitat)
California Least Tern	<i>Sterna antillarum browni</i>	E	--	No (Habitat)
Wood Duck	<i>Aix sponsa</i>	--	1B	No (Habitat)
American Bittern	<i>Botaurus lentiginosus</i>	--	1B	No (Habitat)
Ferruginous Hawk	<i>Buteo regalis</i>	SC	1B	No (Habitat)
Golden Eagle	<i>Aquila chrysaetos</i>	BGEPA	1B	No (Habitat)
Swainson's Thrush	<i>Catharus ustulatus</i>	--	1B	No (Habitat)
Snowy Plover	<i>Charadrius nivosus nivosus</i>	--	1B	No (Habitat)
Southwestern Willow Flycatcher	<i>Empidonax traillii eximius</i>	E	1A	No (Habitat)
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SC	1A	Yes (None Observed)
Cactus Ferruginous Pygmy-owl	<i>Glaucidium brasilianum cactorum</i>	SC	1B	No (Habitat)
Mississippi Kite	<i>Ictinia mississippiensis</i>	--	1B	No (Habitat)
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	T	1A	No (Habitat)
LeConte's Thrasher	<i>Toxostoma lecontei</i>	--	1B	No (Habitat)
Gilded Flicker	<i>Colaptes chrysoides</i>	--	1B	No (Habitat)
Gila Woodpecker	<i>Melanerpes uropygialis</i>	BCC	1B	Yes (None Observed)
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	--	1B	No (Habitat)
Abert's Towhee	<i>Melospiza aberti</i>	--	1B	No (Habitat)
Savannah Sparrow	<i>Passerculus sandwichensis</i>	--	1B	Yes (None Observed)
Yellow Warbler	<i>Setophaga petechia</i>	--	1B	No (Habitat)
Pacific Wren	<i>Troglodytes pacificus</i>	--	1B	No (Habitat)
Arizona Bell's Vireo	<i>Vireo bellii arizonae</i>	--	1B	No (Habitat)
Bendire's Thrasher	<i>Toxostoma bendirei</i>	BCC	--	No (Habitat)
Black-chinned Sparrow	<i>Spizella atrogularis</i>	BCC	--	No (Habitat)
Clark's Grebe	<i>Aechmophorous clarkii</i>	BCC	--	No (Habitat)
Costa's Hummingbird	<i>Calypte costae</i>	BCC	--	No (Habitat)
Grace's Warbler	<i>Dendroica graciae</i>	BCC	--	No (Habitat)
Lawrence's Goldfinch	<i>Spinus lawrencei</i>	BCC	--	Yes (None Observed)
Marbled Godwit	<i>Limosa fedoa</i>	BCC	--	No (Habitat)
Rufous-winged Sparrow	<i>Aimophila carpalis</i>	BCC	--	No (Habitat)
Willet	<i>Tringa semipalmata</i>	BCC	--	No (Habitat)
Reptiles				
Variable Sandsnake	<i>Chilomeniscus stramineus</i>	--	1B	No (Habitat)
Resplendent Shovel-nosed Snake	<i>Chionactis annulata</i>	SC	--	No (Habitat)
Tucson Shovel-nosed Snake	<i>Chionactis occipitalis klauberi</i>	--	1A	No (Habitat)
Sonoran Whipsnake	<i>Coluber bilineatus</i>	--	1B	No (Habitat)
Tiger Rattlesnake	<i>Crotalus tigris</i>	--	1B	No (Habitat)
Sonoran Desert Tortoise	<i>Gopherus morafkai</i>	--	1A	No (Habitat)
Gila Monster	<i>Heloderma suspectum</i>	--	1A	No (Habitat)
Desert Mud Turtle	<i>Kinosternon sonoriense sonoriense</i>	--	1B	No (Habitat)
Sonoran Coralsnake	<i>Micruroides euryxanthus</i>	--	1B	No (Habitat)
Goode's Horned Lizard	<i>Phrynosoma goodie</i>	--	1B	No (Habitat)
Regal Horned Lizard	<i>Phrynosoma solare</i>	--	1B	No (Habitat)

Exhibit C – Areas of Biological Wealth

**Table C-1
Special Status Species with the Potential to Occur in Maricopa County**

Species		Protection Status ¹		Potential to Occur in Project Study Area (Justification) ⁴
Common name	Scientific name	ESA ^{2, 3}	Arizona SGCN ³	
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	T	1A	No (Habitat)
Mohave Fringe-toed Lizard	<i>Uma scoparia</i>	--	1B	No (Habitat)
Bezy's Night Lizard	<i>Xantusia bezyi</i>	--	1B	No (Habitat)
Amphibians				
Sonoran Desert Toad	<i>Incilius alvarius</i>	--	1B	No (Habitat)
Lowland Leopard Frog	<i>Lithobates yavapaiensis</i>	SC	1A	No (Habitat)
Arizona Toad	<i>Anaxyrus microscaphus</i>	SC	1B	No (Habitat)
Sonoran Green Toad	<i>Anaxyrus retiformis</i>	--	1B	No (Habitat)
Chiricahua Leopard Frog	<i>Lithobates chiricahuensis</i>	T	1A	No (Habitat)
Lowland Burrowing Tree Frog	<i>Smilisca fodiens</i>	--	1B	No (Habitat)
Fish				
Gila Longfin Dace	<i>Agosia chrysogaster chrysogaster</i>	SC	1B	No (Habitat)
Desert Sucker	<i>Catostomus clarkii</i>	SC	1B	No (Habitat)
Sonora Sucker	<i>Catostomus insignis</i>	SC	1B	No (Habitat)
Desert Pupfish	<i>Cyprinodon macularius</i>	E	1A	No (Habitat)
Bonytail Chub	<i>Gila elegans</i>	E	1A	No (Habitat)
Roundtail Chub	<i>Gila robusta</i>	SC	1A	No (Habitat)
Gila Topminnow	<i>Poeciliopsis occidentalis occidentalis</i>	E	1A	No (Habitat)
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	E,NE	1A	No (Habitat)
Speckled Dace	<i>Rhinichthys osculus</i>	SC	1B	No (Habitat)
Razorback Sucker	<i>Xyrauchen texanus</i>	E	1A	No (Habitat)
Invertebrates				
Maricopa Tiger Beetle	<i>Cicindela oregona maricopa</i>	SC	--	No (Habitat)
Monarch Butterfly	<i>Danaus plexippus</i>	C	--	No (Habitat)
Phoenix Talussnail	<i>Maricopella allynsmithi</i>	SC	1B	No (Habitat)

¹ E=Endangered, T=Threatened, C=Candidate, EP, NE=Experimental Population, Non-Essential, SC=Species of Concern, BCC=Bird of Conservation Concern, BGEPA=Bald and Golden Eagle Protection Act protected, DM= Delisted taxon, recovered, and being monitored for the first five years, WSC=Wildlife of Special Concern, SR=Salvage Restricted, HS=Highly Safeguarded

² USFWS 2021

³ AGFD 2021a, b

⁴ Elevation means the species does not have the potential to occur because the PSA is not within its elevation requirements. Habitat means the PSA is within the species elevation requirements but there is no suitable or potential habitat for the species. References are provided in the References Section.

Other Sources: Sibley 2003, SEINet 2021

Potential Effect

The following sections address the potential effects from development of the various Project components to special status species identified by the agencies as having the potential to occur within the PSA. The new Project segments and RS-28 Substation will be built within previously disturbed habitats along existing transmission line and public road ROWs and within graded disturbed fields.

Plants

Of the 21 special status plant species having some potential to occur within Maricopa County, none have been recorded in or within three miles of the PSA (AGFD 2021c). Additionally, the elevation of the PSA is outside of the range for these plants and/or there is no suitable habitat in the PSA. The Project would, therefore, have no direct or indirect impacts on threatened, endangered, and state-protected plants.

Wildlife

Agricultural, residential, commercial and industrial development, along with its associated roads and infrastructure, has converted and degraded areas of natural vegetation (wildlife habitat) in the PSA. The Project would permanently impact a very small area of previously cleared or degraded habitat and the majority of the Project-related impacts would be temporary and short-term in nature.

There are no suitable habitats for species listed as threatened, endangered, or candidate species under the ESA in the Project area so there would be no impacts on these species from implementation of the Project.

Six other special status wildlife species; western burrowing owl, savannah sparrow, peregrine falcon, Gila woodpecker, Lawrence's goldfinch, and bald eagle have the potential to occur in the PSA. Due to the heavily disturbed nature of the proposed construction areas and the lack of potentially suitable habitat for the special status species listed above, it is unlikely that any of these species could be directly impacted by construction activities.

Western burrowing owls could be directly and indirectly impacted by construction activities if they are present in the areas adjacent to the construction areas. Construction-related impacts would be temporary and short-term and may include temporary displacement of resident western burrowing owls in the vicinity of the construction area, very low chance of injury or death from vehicle strikes during construction activities, temporary impacts on foraging behaviors in the vicinity of the construction area, and noise-related disturbance. No burrowing owls were observed during the field reconnaissance survey and they are unlikely to nest within the active construction areas. With the incorporation of SRP's proposed measures (**Table C-2**), impacts to western burrowing owls are expected to be minimal.

Savannah sparrow and Lawrence's goldfinch could be directly and indirectly impacted by construction activities. Construction-related impacts would be temporary and short-term and may include temporary displacement of savannah sparrows and Lawrence's goldfinch from the construction area, very low chance of injury or death from vehicle strikes during construction

activities, temporary impacts on foraging behaviors in the vicinity of the construction area, and noise-related disturbance. No savannah sparrows or Lawrence's goldfinches were observed during the field reconnaissance survey and they will likely avoid construction areas. With the incorporation of SRP's proposed measures (**Table C-2**), impacts to savannah sparrows and Lawrence's goldfinches are expected to be minimal.

American peregrine falcons could be indirectly impacted by construction activities. Construction-related impacts would be temporary and short-term and may include the temporary displacement of peregrine falcons from areas adjacent to the construction area, resulting in temporary impacts on foraging behaviors, and noise-related disturbance. No peregrine falcons were observed during the field reconnaissance survey. With the incorporation of SRP's proposed measures (**Table C-2**), impacts to American peregrine falcons are expected to be minimal.

Gila woodpeckers could be directly and indirectly impacted by construction activities. Construction-related impacts would be temporary and short-term and may include the temporary displacement of Gila woodpeckers from the construction area, possible abandonment of nests due to construction activities in the vicinity of large residential and urban trees, very low chance of injury or death from vehicle strikes during construction activities, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. No Gila woodpeckers were observed during the field reconnaissance survey. With the incorporation of SRP's proposed measures (**Table C-2**), impacts to Gila woodpeckers are expected to be minimal.

There is the potential for bald eagles to be directly or indirectly impacted by construction activities, including the temporary displacement of bald eagles from the construction area, possible abandonment of nests due to construction activities in the vicinity of known nesting areas, very low chance of injury or death from vehicle strikes during construction activities, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. SRP is committed to having no disturbance to nesting bald eagles and will incorporate proposed measures, including biological monitoring of the nest during breeding season (**Table C-2**), to ensure there are no negative effects from construction activities. In addition, SRP has been coordinating with AGFD and USFWS on mitigation and protection measures for urban nesting bald eagles and will maintain our working relationship with AGFD and USFWS throughout this Project.

If construction occurs during the nesting season, a pre-construction protocol survey *30 days prior to construction* will be conducted to ensure that any active western burrowing owl, Gila woodpecker, and other bird nests protected under the MBTA are either avoided or removed before they become active. If active burrows and/or nests cannot be avoided, onsite personnel will contact the SRP Avian Protection Program for steps to take to ensure the nesting birds are protected. SRP will work with the AGFD and wildlife rehabilitators if western burrowing owls need to be relocated. Therefore, direct impacts associated with the Project would constitute a short-term minor impact on western burrowing owl, Gila woodpecker, and other MBTA-protected bird species. The potential impacts for each Project component are discussed below.

The presence of irrigation infrastructure and residential lakes to the east and west of the Project may attract waterfowl and shorebirds. This may increase the potential for avian / line interactions as birds make localized movements between water features and roost sites. To minimize risk to migratory birds, the lines would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (Avian Power Line Interaction Committee [APLIC])

2012 and 2006). If avian / line interactions become an issue, SRP would move quickly to evaluate the issue and craft a solution using appropriate state of the art measures.

Routes

Existing Henshaw Substation to Intel

The existing Henshaw Substation to Intel segment (node H1 to H2) would parallel the existing Old Price Road and 69 kilovolt (kV) transmission lines for its entire length; approximately 2.74 miles. The existing 69 kV transmission lines will be underbuilt on the proposed 230 kV line resulting in less poles overall. It would be built within the disturbed ROWs. The active and remnant agricultural areas located to the west of this route provide potential western burrowing owl nesting habitat and contain the known bald eagle nest. These areas also may provide Lawrence's goldfinch, peregrine falcon, western burrowing owl, bald eagle, and savannah sparrow foraging habitat. It is in these active and remnant agricultural areas that western burrowing owl burrows are the most likely to be encountered, however, these areas will not be directly impacted by Project construction.

Potential impacts to special status species related to the construction of this segment could include displacement of individuals from the construction area, possible abandonment of nests due to construction activities, injury or death from vehicle strikes during construction, collision or electrocution risk with transmission lines, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. Project work areas are expected to be very small and vehicle speed will be limited to 15 miles-per-hour (mph), reducing the potential for injury or death to special status species during construction due to vehicle strikes. As discussed, transmission lines will be built within the same ROW as the existing 69 kV lines and will be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC 2012 and 2006). With the incorporation of SRP's proposed measures (**Table C-2**), construction activities along this route are anticipated to have minimal impacts on the western burrowing owl, Lawrence's goldfinch, savannah sparrow, bald eagle, Gila woodpecker, peregrine falcon, and other special status species that may be encountered.

New RS-28 Substation

The new RS-28 Substation would be located on approximately 23 acres of land within the Intel Ocotillo Campus. Approximately half of this area is within previously disturbed urban lands within the fenceline of the existing industrial campus; the other half is within previously graded agricultural fields. The construction area contains no foraging or nesting habitat for any special status species. The active and remnant agricultural fields to the west of this area may contain suitable nesting habitat for western burrowing owls, but these areas will not be impacted by construction and the lack of suitable foraging areas within the limits of construction minimize the potential for occurrence. The urban areas approximately 600 feet south of the substation contain large ornamental and shade trees that may be suitable nesting and foraging habitat for Gila woodpecker and various other MBTA-protected bird species (none were observed during the field reconnaissance survey); however, these areas would not be directly impacted by Project activities.

Potential impacts to special status species related to the construction of this substation could include displacement of individuals from the construction area, possible abandonment of nests due to construction activities, injury or death from vehicle strikes during construction, collision or electrocution risk with transmission lines and substation infrastructure, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. The Project work area is very small (23 acres) and vehicle speed will be limited to 15 mph, reducing the potential for injury or death to special status species during construction due to vehicle strikes. As discussed, transmission lines will be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC 2012 and 2006). With the incorporation of SRP's proposed measures (**Table C-2**), the Project is anticipated to have minimal impact on the western burrowing owl, Lawrence's goldfinch, savannah sparrow, peregrine falcon, bald eagle, Gila woodpecker, and other special status species that may be encountered.

Schrader Overhead Transition Corridor

This corridor includes the existing Schrader Substation and an SRP-owned parcel to the west of the existing Schrader Substation and to the east of the Union Pacific Railroad (UPRR). These transmission poles and lines would be built entirely within disturbed urban habitats associated with the Schrader Substation and the disturbed vacant parcel. This area is located between residential housing areas and urban areas. The construction areas contain no foraging or nesting habitat for any special status species. There is a man-made urban lake located between 250 and 500 feet south of the corridor that could attract special status and other water birds. These water birds may fly through the Project area and could collide with overhead transmission lines when visibility is limited due to environmental conditions like dust or rain. As discussed above, the lines would be constructed following industry suggested practices aimed at reducing avian collisions (APLIC 2012). The urban areas to the east and west also contain large ornamental and shade trees that may contain suitable nesting and foraging habitat for Gila woodpecker and various other MBTA-protected bird species (none were observed during the field reconnaissance survey); however, these areas would not be directly impacted by Project activities.

Potential impacts to special status species related to the construction of this corridor could include displacement of individuals from the construction area, possible abandonment of nests due to construction activities, injury or death from vehicle strikes during construction, collision or electrocution risk with transmission lines, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. Project work areas are expected to be very small and vehicle speed will be limited to 15 mph, reducing the potential for injury or death to special status species during construction due to vehicle strikes. As discussed, transmission lines will be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC 2012 and 2006). With the incorporation of SRP's proposed measures (**Table C-2**), the Project is anticipated to have minimal impact on the western burrowing owl, Lawrence's goldfinch, savannah sparrow, Gila woodpecker, bald eagle, peregrine falcon, and other special status species that may be encountered.

Conclusions

The entire PSA has been previously disturbed, significantly reducing its habitat quality. All of the disturbances associated with construction would occur in previously disturbed areas. The sensitive

species with the potential to occur in the PSA would not be expected to be negatively affected because of the small amount of suitable habitat and/or implementation of mitigation measures (**Table C-2**) that would be employed to avoid or minimize the potential risk to this and other species.

SRP works closely with AGFD, USFWS, and others on the long-term conservation of eagles in Arizona. This includes developing mitigation and protection measures for urban nesting bald eagles. SRP will continue to maintain our working relationship with AGFD and USFWS to ensure there is no disturbance to nesting bald eagles throughout the duration of this Project.

Table C-2 SRP Proposed Measures
<i>BIOLOGICAL RESOURCES</i>
<i>Vegetation</i>
<i>Adverse effects on vegetation during construction would be minimized as follows:</i>
<ul style="list-style-type: none"> • Prohibit vehicle operation off designated routes by construction workers, including construction work and employee access. • Existing access roads would be used to the maximum extent allowable.
<i>The following prescriptions would prevent the spread of invasive weeds into previously uninfested areas in the designated construction ROW.</i>
<ul style="list-style-type: none"> • In advance of construction activities, all construction equipment arriving on site would have the tires, axles, frame, running boards, under-carriages, and any equipment parts designed to hold soil or rock washed and cleaned at a documented off-site location to prevent transport of invasive weed species into Project areas.
<i>Wildlife</i>
<i>Construction activities and vehicle operation would be conducted to minimize potential impacts or disturbance of wildlife.</i>
<ul style="list-style-type: none"> • Speed limits along the ROW and access roads would be limited to 15 mph. In addition, construction and maintenance employees would exercise caution when traveling to and from the proposed ROW site on designated routes to reduce the potential for wildlife mortality. • During construction, work areas would be checked for animals before daily work is initiated to minimize harm.
<i>Design would minimize electrocution and collision potential for birds:</i>
Design would space conductors and shield wires sufficiently apart so that large bodied birds cannot contact two conductors or one conductor and a shield wire to cause electrocution as outlined in Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006)
<i>Implement conservation measures to decrease the likelihood of take of special status wildlife species and impacts to critical habitat.</i>
<ul style="list-style-type: none"> • Minimize habitat degradation by limiting travel to existing roads and surface disturbance to previously disturbed areas. • Conduct pre-construction burrowing owl survey within 30 days prior to the commencement of construction activities during the burrowing owl nesting season to ensure that any active burrowing owl burrows are avoided. • If construction will occur during the nesting season, a pre-construction migratory bird nest survey would be conducted within 30 days prior to the commencement of construction activities to ensure that any active nests are avoided. If an active nest is discovered, onsite personnel will contact SRP's Avian Protection Program for steps to take to ensure the nesting birds are protected. • An attempt will be made to ensure work activities within 500 feet of the bald eagle nest occur outside of the eagle nesting season (November 1 to May 31). If construction activities need to occur within 500 feet of the active eagle nest, a biologist will be onsite to monitor the nesting eagles and coordinate with construction personnel to ensure no disturbance.

References

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AGFD. 2021c. Arizona's On-line Environmental Review Tool. [Web Page] Located at <http://www.azgfd.gov/hgis/>. Project ID: HGIS-00414. Accessed: August 18, 2021.

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Sibley, David Allen. 2003. *The Sibley Guide to Birds of Western North America*. Alfred A. Knopf, New York.

U.S. Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation Resource List, List of Species. [Web Page] Located at <http://www.ecos.fws.gov/ipac/>. Accessed: August 18, 2021.

EXHIBIT C-1
AGENCY CORRESPONDENCE

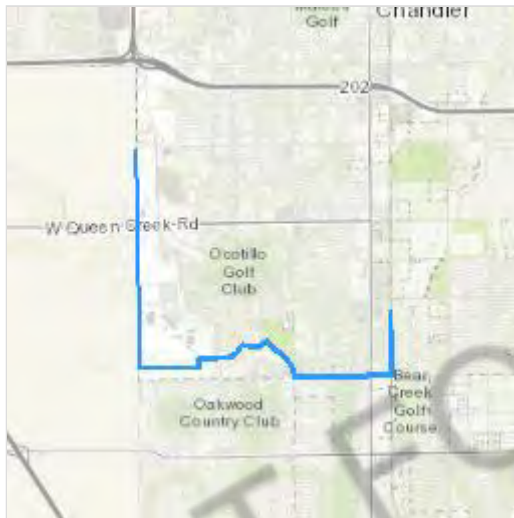
IPaC resource list

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

Maricopa County, Arizona



Local office

Arizona Ecological Services Field Office

☎ (602) 242-0210

📅 (602) 242-2513

9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

<http://www.fws.gov/southwest/es/arizona/>

http://www.fws.gov/southwest/es/EndangeredSpecies_Main.html

NOT FOR CONSULTATION

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 species¹ 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 Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Mammals

NAME	STATUS
Sonoran Pronghorn <i>Antilocapra americana sonoriensis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4750	EXPN

Birds

NAME	STATUS
California Least Tern <i>Sterna antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3911	Threatened
Yuma Ridgways (clapper) Rail <i>Rallus obsoletus [=longirostris] yumanensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3505	Endangered

Reptiles

NAME	STATUS
Sonoran Desert Tortoise <i>Gopherus morafkai</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9289	Candidate

Fishes

NAME	STATUS
Roundtail Chub <i>Gila robusta</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2782	Candidate

Insects

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

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 Act¹ and the Bald and Golden Eagle Protection Act².

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

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

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

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Oct 15 to Aug 31

Bendire's Thrasher *Toxostoma bendirei*

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

<https://ecos.fws.gov/ecp/species/9435>

Breeds Mar 15 to Jul 31

Black-chinned Sparrow *Spizella atrogularis*

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

<https://ecos.fws.gov/ecp/species/9447>

Breeds Apr 15 to Jul 31

Clark's Grebe *Aechmophorus clarkii*

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

Breeds Jun 1 to Aug 31

Costa's Hummingbird *Calypte costae*

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/9470>

Breeds Jan 15 to Jun 10

Gila Woodpecker *Melanerpes uropygialis*

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/5960>

Breeds Apr 1 to Aug 31

Golden Eagle *Aquila chrysaetos*

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>

Breeds Dec 1 to Aug 31

Grace's Warbler *Dendroica graciae*

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

Breeds May 20 to Jul 20

Lawrence's Goldfinch *Carduelis lawrencei*

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

<https://ecos.fws.gov/ecp/species/9464>

Breeds Mar 20 to Sep 20

Marbled Godwit *Limosa fedoa*

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

<https://ecos.fws.gov/ecp/species/9481>

Breeds elsewhere

Rufous-winged Sparrow *Aimophila carpalis*

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

Breeds Jun 15 to Sep 30

Willet *Tringa semipalmata*

Breeds elsewhere

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.

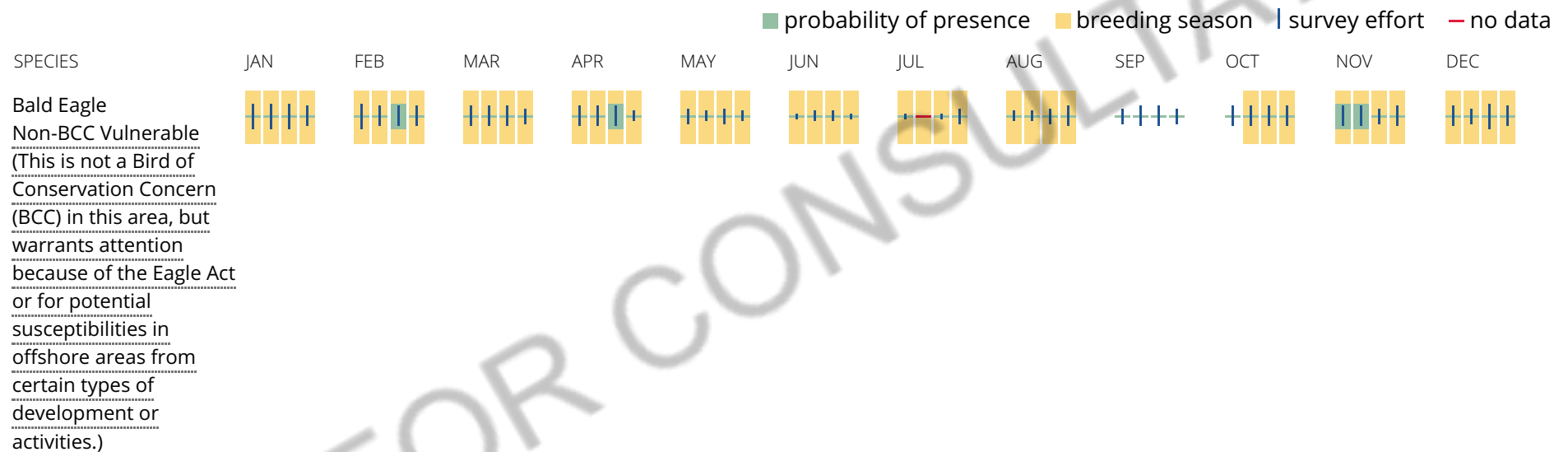
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

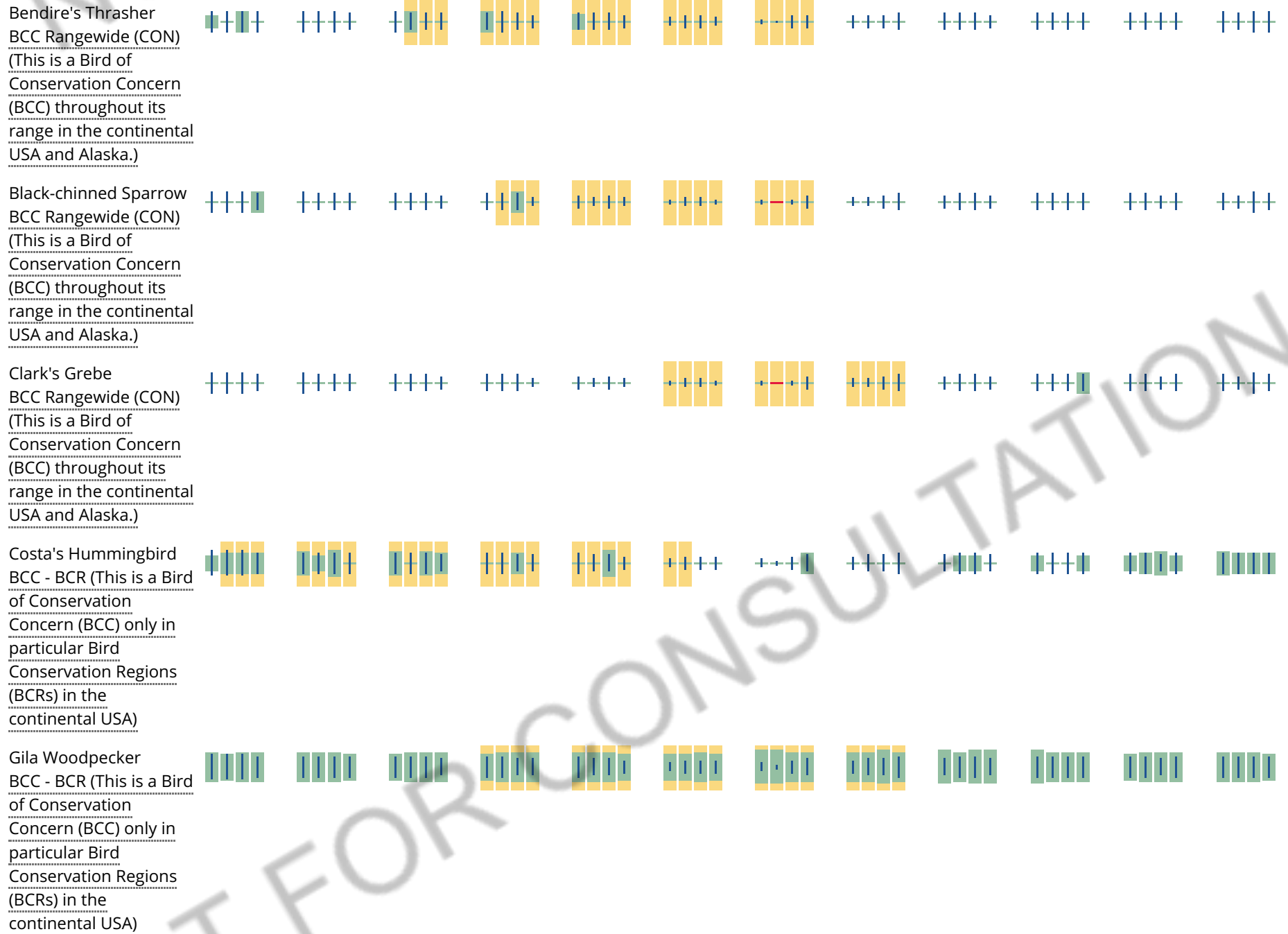
No Data (—)

A week is marked as having no data if there were no survey events for that week.

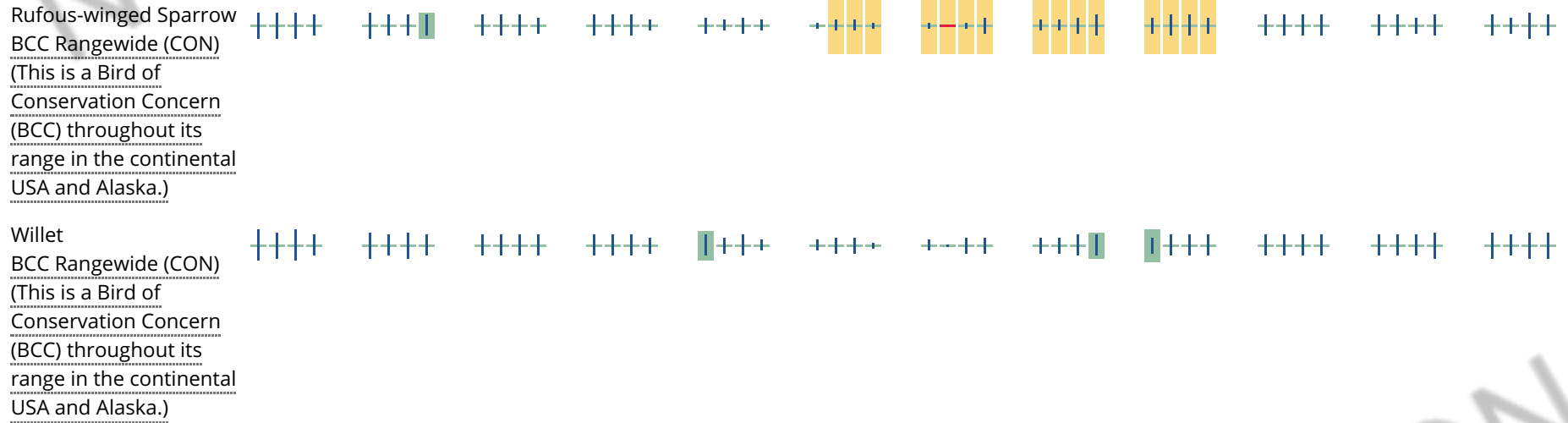
Survey Timeframe

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.





Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)										++++	++++	++++	
Grace's Warbler BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)	++++	----	----	++++				++++	----	+■+++	++++	++++	
Lawrence's Goldfinch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++								++++	++++		
Marbled Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++■	++++	++++	---+	++++	++++	++++	++++	++++	++++



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

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

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

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to 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:

FRESHWATER POND

[PUBHx](#)

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 tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

Arizona Environmental Online Review Tool Report



Arizona Game and Fish Department Mission

To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

Unknown

Project Description:

Unknown

Project Type:

Energy Storage/Production/Transfer, Energy Transfer, Power line/electric line (new)

Contact Person:

Scott Albrecht

Organization:

Heritage

On Behalf Of:

CONSULTING

Project ID:

HGIS-14192

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

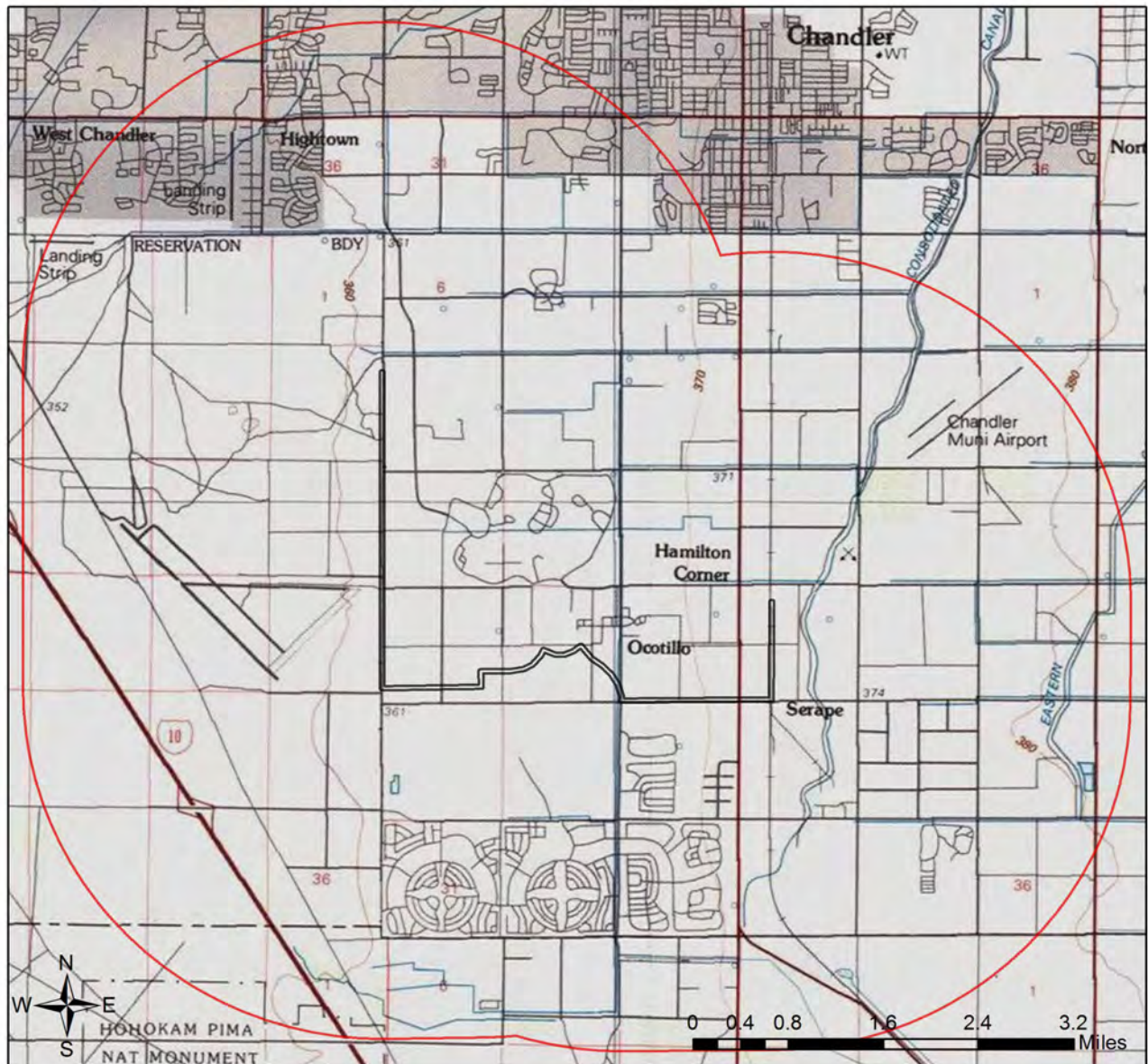
Locations Accuracy Disclaimer:

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366
Or
PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

Unknown USA Topo Basemap With Locator Map



- Project Boundary
- Buffered Project Boundary

Project Size (acres): 179.91

Lat/Long (DD): 33.2391 / -111.8651

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T2S, R4E; T2S, R5E

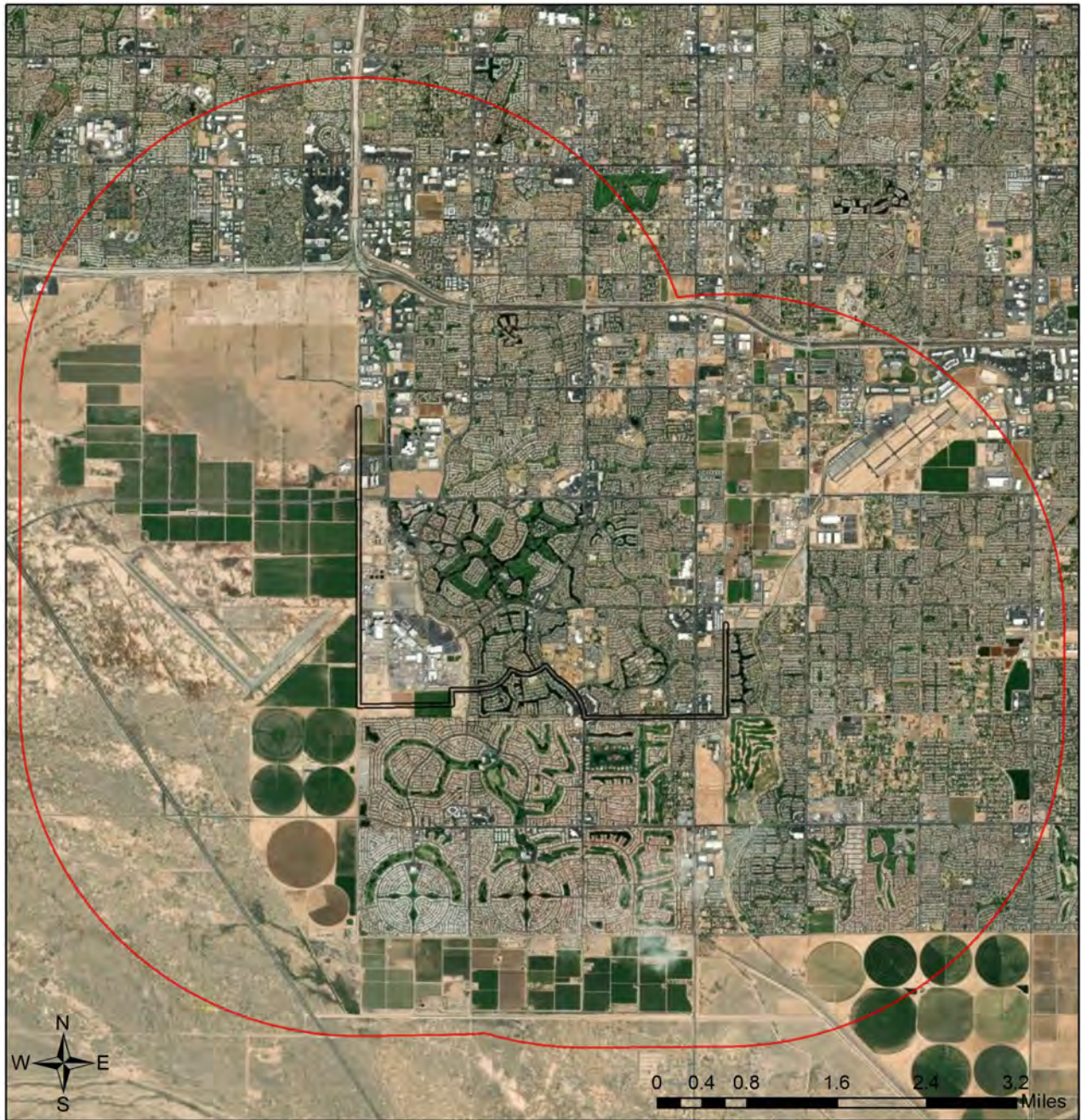
USGS Quad(s): GILA BUTTE; GILA BUTTE NW +

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap



Unknown

Web Map As Submitted By User

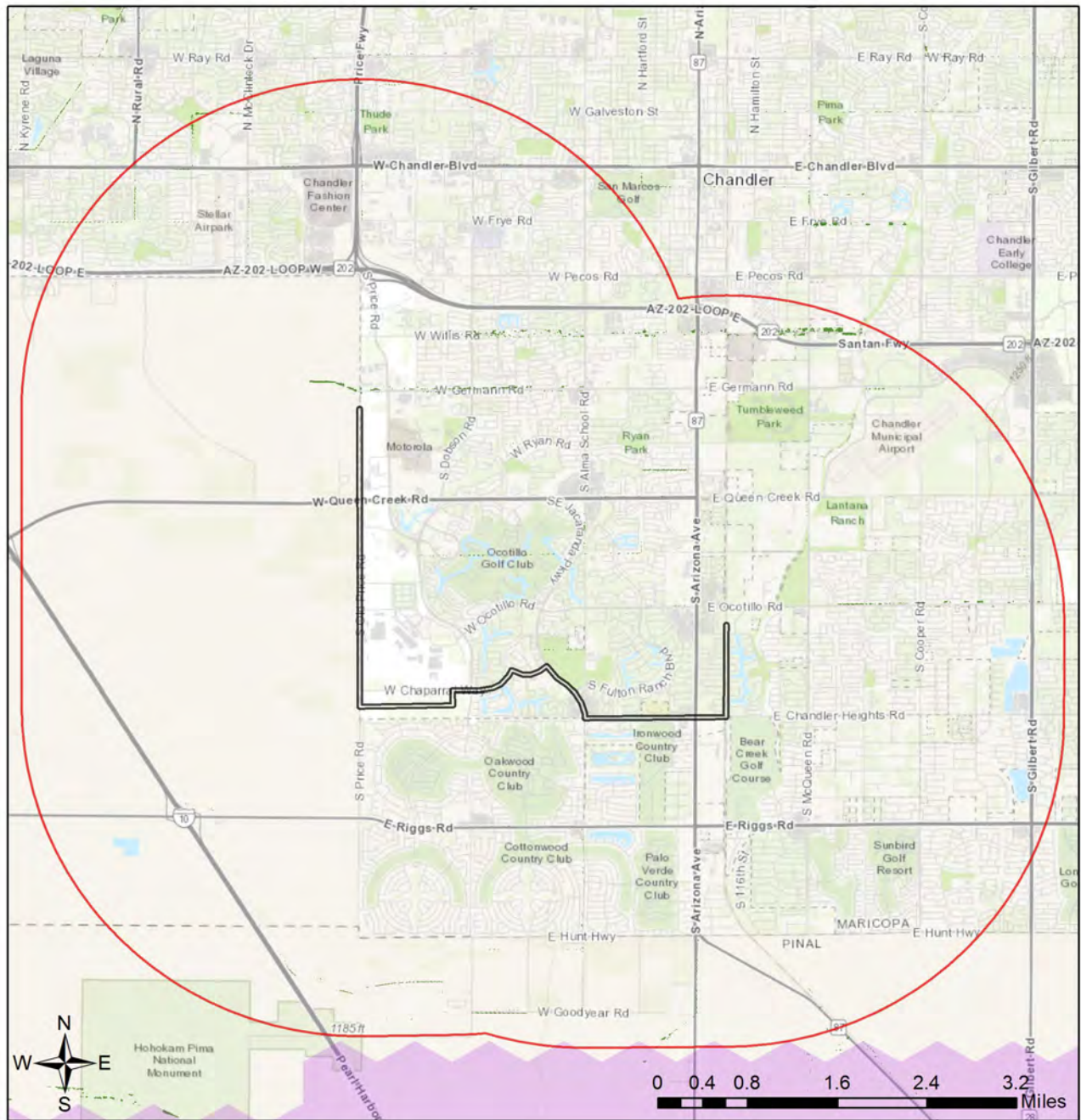


- Project Boundary
- Buffered Project Boundary

Project Size (acres): 179.91
Lat/Long (DD): 33.2391 / -111.8651
County(s): Maricopa
AGFD Region(s): Mesa
Township/Range(s): T2S, R4E; T2S, R5E
USGS Quad(s): GILA BUTTE; GILA BUTTE NW +

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Unknown Important Areas



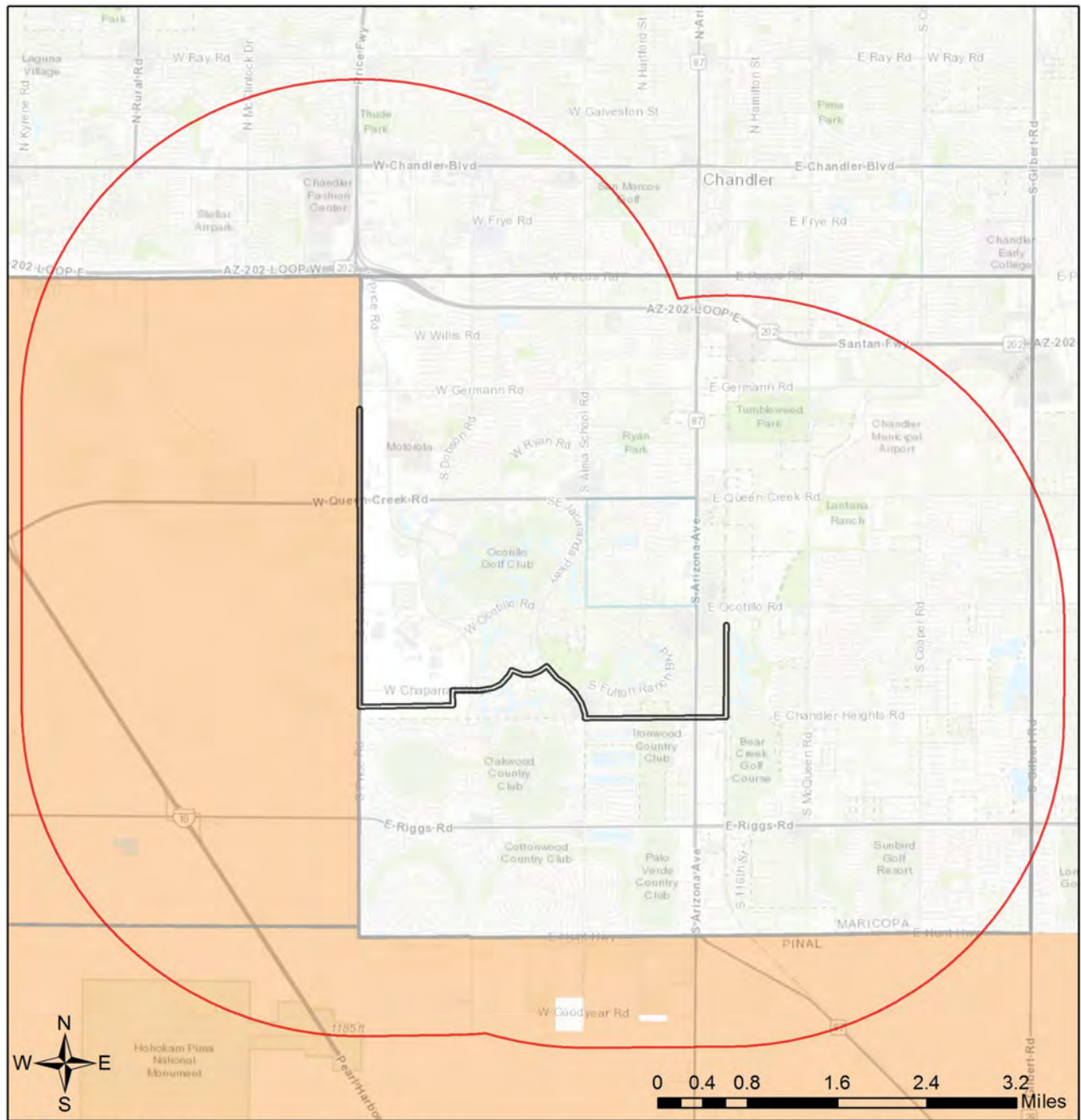
- Project Boundary
- Buffered Project Boundary
- Wildlife Connectivity
- Important Connectivity Zones
- Pinal County Riparian
- Critical Habitat
- Important Bird Areas

Project Size (acres): 179.91
 Lat/Long (DD): 33.2391 / -111.8651
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T2S, R4E; T2S, R5E
 USGS Quad(s): GILA BUTTE; GILA BUTTE NW +

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Unknown

Township/Ranges and Land Ownership



- | | |
|---------------------------|------------------------|
| Project Boundary | Military |
| Buffered Project Boundary | Mixed/Other |
| Township/Ranges | National Park/Mon. |
| Land Ownership | |
| AZ Game & Fish Dept. | State & Regional Parks |
| BLM | State Trust |
| BOR | US Forest Service |
| Indian Res. | Wildlife Area/Refuge |
| | Private |

Project Size (acres): 179.91
 Lat/Long (DD): 33.2391 / -111.8651
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T2S, R4E; T2S, R5E
 USGS Quad(s): GILA BUTTE; GILA BUTTE NW +

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Haliaeetus leucocephalus pop. 3	Bald Eagle - Sonoran Desert Population	SC, BGA	S	S		1A

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Gila River Indian Reservation	Gila River Indian Reservation					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisi	Harris' Antelope Squirrel					1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Calypte costae	Costa's Hummingbird					1C
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis annulata	Resplendent Shovel-nosed Snake	SC				1C
Cistothorus palustris	Marsh Wren					1C
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Empidonax wrightii	Gray Flycatcher					1C
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Gopherus morafkai	Sonoran Desert Tortoise	C	S	S		1A
Haliaeetus leucocephalus	Bald Eagle	SC, BGA	S	S		1A
Heloderma suspectum	Gila Monster					1A
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		1B
Lasiurus blossevillii	Western Red Bat		S			1B
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1A

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Lepus alleni</i>	Antelope Jackrabbit					1B
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		1B
<i>Melanerpes uropygialis</i>	Gila Woodpecker					1B
<i>Melospiza lincolnii</i>	Lincoln's Sparrow					1B
<i>Melospiza aberti</i>	Abert's Towhee		S			1B
<i>Micrathene whitneyi</i>	Elf Owl					1C
<i>Micruroides euryxanthus</i>	Sonoran Coralsnake					1B
<i>Myiarchus tyrannulus</i>	Brown-crested Flycatcher					1C
<i>Myotis occultus</i>	Arizona Myotis	SC		S		1B
<i>Myotis velifer</i>	Cave Myotis	SC		S		1B
<i>Myotis yumanensis</i>	Yuma Myotis	SC				1B
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					1B
<i>Oreoscoptes montanus</i>	Sage Thrasher					1C
<i>Oreothlypis luciae</i>	Lucy's Warbler					1C
<i>Panthera onca</i>	Jaguar	LE				1A
<i>Passerculus sandwichensis</i>	Savannah Sparrow					1B
<i>Phrynosoma goodei</i>	Goode's Horned Lizard					1B
<i>Phrynosoma solare</i>	Regal Horned Lizard					1B
<i>Rallus obsoletus yumanensis</i>	Yuma Ridgway's Rail	LE				1A
<i>Setophaga petechia</i>	Yellow Warbler					1B
<i>Sphyrapicus nuchalis</i>	Red-naped Sapsucker					1C
<i>Spizella breweri</i>	Brewer's Sparrow					1C
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat					1B
<i>Toxostoma lecontei</i>	LeConte's Thrasher			S		1B
<i>Troglodytes pacificus</i>	Pacific Wren					1B
<i>Vireo bellii arizonae</i>	Arizona Bell's Vireo					1B
<i>Vulpes macrotis</i>	Kit Fox	No Status				1B

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Callipepla gambelii</i>	Gambel's Quail					
<i>Zenaida asiatica</i>	White-winged Dove					
<i>Zenaida macroura</i>	Mourning Dove					

Project Type: Energy Storage/Production/Transfer, Energy Transfer, Power line/electric line (new)

Project Type Recommendations:

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

For any powerlines built, proper design and construction of the transmission line is necessary to prevent or minimize risk of electrocution of raptors, owls, vultures, and golden or bald eagles, which are protected under state and federal laws. Limit project activities during the breeding season for birds, generally March through late August, depending on species in the local area (raptors breed in early February through May). Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during the nesting season. For underground powerlines, trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herptefauna (snakes, lizards, tortoise) from entering ditches. In addition, indirect affects to wildlife due to construction (timing of activity, clearing of rights-of-way, associated bridges and culverts, affects to wetlands, fences) should also be considered and mitigated.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (<http://www.fws.gov/southwest/es/arizona/>).

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Project Location and/or Species Recommendations:

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <http://www.fws.gov/southwest/es/arizona/> or:

Phoenix Main Office

9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office

201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office

SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Gila River Indian Community

PO Box 97
Sacaton, AZ 85247
(520) 562-2234
(520) 562-2245 (fax)

HDMS records indicate that **Western Burrowing Owls** have been documented within the vicinity of your project area. Please review the western burrowing owl resource page at:
<https://www.azgfd.com/wildlife/speciesofgreatestconservneed/burrowingowlmanagement/>.

