EXHIBIT C
AREAS OF BIOLOGICAL WEALTH

In accordance with Arizona Administrative Code R14-3-219, the Applicant provides the following information:

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.

Introduction

Areas of biological wealth and the rare and endangered species that may occur at or in the vicinity of the proposed Project Huckleberry 230 kilovolt (kV) Transmission Line Project (Project Huckleberry or Project) were identified through a biotic resource review conducted by KP Environmental, Inc. (KPE). The data sources consulted for the review include:

- Topographical and aerial maps and land use, land cover, and elevation data.
- The U.S. Fish and Wildlife Service (USFWS) species list for the Project obtained from the USFWS online Information for Planning and Consultation (IPaC) system (**Exhibit C-1**).
- Species information obtained from the USFWS Environmental Conservation Online System, the USFWS Arizona Ecological Services document library, the Arizona Game and Fish Department (AGFD) Online Environmental Review Tool (**Exhibit C-2**) and special status species listed in the AGFD Heritage Data Management System (HDMS) within Maricopa County (**Table C-2**).

The AGFD Online Environmental Review Tool database query establishes a buffer beyond the Project area to search for occurrence records and the presence of modeled habitat. The size of the buffer depends on the type of project being considered. For this Project, the buffer is five miles beyond the Project as defined by the AGFD Online Environmental Review Tool. This buffer fully encompasses the Project area.

In addition, several surveys have been conducted within the Project area for biological resources:

- In June and July of 2021, an AECOM biologist with expertise in the biology of flora and fauna of the region completed on-ground field reconnaissance surveys of the Project area. The on-ground field reconnaissance surveys that were performed included pre-construction migratory bird nest surveys and western burrowing owl surveys that were conducted for the proposed Prickly Pear 230 kV Substation and associated areas within Meta's Mesa Data Center (Data Center) Project site to

document compliance with the Migratory Bird Treaty Act (MBTA) and Arizona Revised Statutes Title 17 (AECOM, 2021).

- In January 2022, Salt River Project Agricultural Improvement and Power District (SRP) biologists performed a pre-construction burrowing owl and migratory bird nest survey of the proposed 230 kV transmission line right-of-way (ROW) to document compliance with the MBTA (SRP, 2022a).
- In March 2022, SRP biologists performed a native plant survey of the proposed 230 kV transmission line ROW to ensure compliance with Arizona Native Plant Law (SRP, 2022b).

Laws and Policies

Applicable laws and policies regarding special-status species in Arizona include the following.

The USFWS administers the following federal laws and associated regulations:

- The USFWS administers the Endangered Species Act of 1973, as amended (ESA). The ESA protects wildlife species listed as threatened or endangered from "take" (generally, intentional or unintentional harm or harassment of a listed species). However, the ESA does not provide the same take protections for listed plant species, except on federal land. The ESA also allows for the designation of critical habitat for listed species, although designation of critical habitat is not required. Critical habitat is an administrative designation of a defined area with specific characteristics important to the survival and recovery of a listed species. Designation of critical habitat can affect federal actions but not state or private actions unless there is a federal nexus.

- The MBTA provides for the protection of migratory birds and prohibits their unlawful take or possession. The act bans "taking" any native birds; "taking" can mean killing a wild bird or possessing parts of a wild bird, including feathers, nests, or eggs. Exceptions are allowed for hunting game birds and for research purposes, both of which require permits.

- The Bald and Golden Eagle Protection Act (BGEPA) prohibits any form of possession or taking of bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*). The act prohibits the "take" of bald and golden eagles; "taking" includes disturbing eagles, which 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, 1) injury to an eagle, 2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior.

The AGFD manages and conserves wildlife in Arizona. Nearly all take of wildlife is regulated in some manner through the hunting and fishing license system. Arizona does not have a counterpart to the federal ESA, but a list of rare species (Wildlife Species of Concern [WSC]) was created in 1996, based on ESA candidate species, without creating any specific statutory protections for those species. However, hunting regulations are used to provide some protection. The WSC status is no longer a valid category because they were former but no longer candidate species under the ESA; however, the AGFD continues to track these species due to an existing memorandum of understanding between the USFWS and AGFD. Generally, no hunting or capture of those species is allowed, with some exceptions for managed recreational fisheries of native fish and recreational capture of certain reptiles.

Arizona prepared a Comprehensive Wildlife Conservation Strategy in 2006 (AGFD, 2006), later renamed the State Wildlife Action Plan (SWAP), through a state-federal partnership and grant program. The SWAP was updated in 2012. The SWAP identifies Species of Greatest Conservation Need (SGCN) in several tiers. Tier 1A includes ESA-listed species and other rare species. Tier 1B includes species that are not listed but are regionally rare or declining species with a U.S. range primarily in Arizona that are dependent on conservation efforts within the state and other species with identified conservation issues that may warrant management action. Tier 1C includes species with substantial data gaps and unknown conservation status but for which conservation concern may be warranted. Other tiers include species that are common, widespread, or in stable populations.

Native plants in Arizona are managed by the Arizona Department of Agriculture (ADA), which regulates harvest, salvage, and transport of plants. Harvest or salvage of most plant species may be permitted or required, and fees may be assessed on Arizona State Land Department (ASLD or State Land) State Trust Land. Plants listed in the Highly Safeguarded category may only be taken or salvaged for scientific or conservation purposes. The ADA administers the state noxious weed law under Arizona Administrative Code R3-4-245.

Inventory

The USFWS IPaC was accessed on March 24, 2022, and the USFWS generated a report listing proposed, candidate, threatened, and endangered species and other resources that could potentially occur within the Project area (USFWS, 2022; species are shown in **Table C-1**).

The AGFD Online Environmental Review Tool search was completed for the Project on March 23, 2022 (AGFD, 2022). The information provided in the environmental review 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.

In addition, the AGFD HDMS has 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 **Table C-2.** These lists were consulted to identify species that could potentially be present in the vicinity of the Project. **Table C-2** presents the special status species potentially occurring within Maricopa County (where the Project is located) as well as those species that were included on the Arizona Online Environmental Review Tool listed by common name, scientific name, and status.

The USFWS IPaC has identified zero plant species and three wildlife species (two birds and one insect) with federal status that have the potential to occur within the Project area as well as two birds protected by the MBTA, see **Table C-1**.

The AGFD Arizona Online Environmental Review Tool identified zero plant species and 36 wildlife species (15 mammals, zero fish, 11 birds, one amphibian, zero invertebrates, and nine reptiles) with special status that have the potential to occur within five miles of the Project area. The environmental review indicated that there are two special status wildlife species that are known to occur within three miles of the Project area: one bird species and one invertebrate species. These species are included in **Table C-2**.

The special status species listed in the AGFD HDMS (**Table C-2**) identified 21 plant species and 80 wildlife species (16 mammals, 10 fish, 24 birds, six amphibians, three invertebrates, and 21 reptiles) with special status that have the potential to occur within Maricopa County.

Prior to conducting the desktop analysis, the ecology and habitat requirements of various species that could occur in the county were researched. Multiple biological field surveys were completed in the Project area. An on-ground field reconnaissance survey of the Project components was conducted by a qualified biologist in June and July of 2021. Pre-construction migratory bird nest surveys and western burrowing owl surveys that were conducted for the proposed Project components, Prickly Pear 230 kV Substation, area on the Data Center site, and along the proposed 230 kV transmission line ROW to document compliance with the MBTA and Arizona Revised Statutes Title 17 (AECOM, 2021) (SRP, 2022a). A native plant survey was conducted along the proposed 230 kV transmission line ROW in March of 2022 to ensure compliance with the Arizona Native Plant Law (SRP, 2022b). The information was used to evaluate the potential effects of Project implementation on special status species within the vicinity of the Project.

Results of Field Surveys

Information from field surveys denoted that overall habitat quality, plant diversity, and density are very low. The Project site is mapped as having native vegetation characteristics of the Lower Colorado River Valley subdivision of the Sonoran Desert scrub biome; however, the entire Project site has been mostly cleared of native vegetation (AECOM, 2021; SRP, 2022b). The proposed Prickly Pear 230 kV Substation is relatively devoid of vegetation.

A qualified biologist performed a pedestrian native plant survey along the proposed 230 kV transmission line ROW on March 31, 2022, to document native vegetation and ensure compliance with the Arizona Native Plant Law (SRP, 2022b). Vegetation within the proposed 230 kV transmission line is sparse and includes limited Sonoran Desert scrub vegetation. Vegetation observed primarily includes scattered velvet mesquite (*Prosopis velutina*) and creosote bush (*Larrea tridentata*), but greythorn (*Ziziphus obtusifolia*), wolfberry (*Lycium greggii*), rubber rabbitbrush (*Chrysothamnus nauseosus*), brittlebush (*Encelia farnosa),* desert globe mallow (*Sphaeralcea ambigua*), and big saltbush (*Atriplex lentiformis*) were also present on the site. One invasive weed species, stinknet (*Oncosiphon piluliferum*) was observed along the proposed 230 kV transmission line ROW during the native plant survey (SRP, 2022b).

A single crucifixion thorn (*Castela emoryi*) was observed outside of the proposed 230 kV transmission line ROW, but within the adjacent 69 kV transmission line ROW (SRP, 2022b). The crucifixion thorn is classified as a salvage restricted native plant as prescribed in A.R.S. § 3-903(B)(2).

A qualified biologist performed migratory bird nest surveys on July 10, 11, 13, and 17, 2021 and on January 18, 2022. Surveys completed in July 2021 were performed from 5 a.m. to 9 a.m. These surveys consisted of a pedestrian survey and windshield survey of the Project area to view potential nests in trees. No active nests were observed within the Project areas during the four days of surveys (AECOM, 2021). Migratory bird nest surveys completed in January 2022 consisted of a pedestrian survey to view potential nests along the proposed 230 kV transmission line. No active nests were identified along the proposed 230 kV transmission line (SRP, 2022a).

A qualified biologist performed initial western burrowing owl (*Athene cunicularia hypugaea*) surveys on June 11 and 12, 2021. Surveys were performed from 5 a.m. to 9 a.m. on both days when temperatures were below 85 degrees Fahrenheit. These surveys consisted of a pedestrian survey and windshield survey of the Project area to view potential burrows and observe any active owls. The Burrowing Owl Project Clearance Guidance for Landowners (2009) from the Arizona Burrowing Owl Working Group was utilized for the survey. Transects were walked and potential burrows were observed for signs of use (molted features, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance). Very few inactive potential burrowing owl burrows were observed within the Project area. Most burrows appeared to be created by ground squirrels (AECOM, 2021). None of these burrows had signs that they were being utilized by western burrowing owls. No burrowing owls were observed on the property during the eight hours of survey time (AECOM, 2021).

A qualified biologist performed follow-up burrowing owl surveys on July 10, 11, and 13, 2021. Surveys were performed from 5 a.m. to 9 a.m. These surveys followed the same protocols as the initial burrowing owl surveys. Very few inactive potential burrowing owl burrows were observed within the Project area during these surveys. Most burrows appeared to be created by ground squirrels (AECOM, 2021). None of these burrows had signs that they were being utilized by western burrowing owls. No burrowing owls were

observed on the property during the 12 hours of survey time (AECOM, 2021). The qualified biologist collapsed any potential burrowing owl burrows within the Project area to help reduce the potential for a burrowing owl to move into these burrows.

A qualified biologist with SRP performed burrowing owl surveys along the proposed 230 kV transmission line on January 18, 2022. This survey consisted of pedestrian surveys to view potential and active burrowing owl burrows. During the pedestrian transect survey potential burrows were checked for burrowing owl sign (e.g., feathers, pellets, prey remains, or excrement near burrow entrance) (SRP, 2022a). Very few potential burrows were observed within the ROW. Burrows observed during the survey were likely created by rodents and none showed signs of burrowing owl activity. No burrowing owls were observed along the proposed 230 kV transmission ROW (SRP, 2022a).

Summary of Occurrence

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 USFWS-listed special status species potentially occurring within the area, listed by common name, scientific name, and status.

The USFWS IPaC did not identify any plant species listed as endangered or threatened under the ESA within the Project area. The AGFD HDMS list identified 21 plant species that are protected under Arizona Native Plant Law that have the potential to occur within Maricopa County (**Table C-2**). The crucifixion thorn that was observed during the native plant survey is not listed on the AGFD HDMS Maricopa County list but is included in **Table C-2** to document the species protection status.

Threatened, Endangered, and Sensitive Wildlife Species

The USFWS IPaC has identified two wildlife species (two birds) protected under the ESA and one ESA candidate invertebrate species (**Table C-1**). The AGFD Online Environmental Review Tool identified 36 species of greatest conservation need (15 mammals, 11 birds, one amphibian, and nine reptiles) with the potential to occur within five miles of the Project area, and the AGFD HDMS has identified 80 wildlife species (16 mammals, 10 fish, 24 birds, six amphibians, three invertebrates, and 21 reptiles) with special status that have the potential to occur within Maricopa County (some of these species overlap between the AGFD Online Environmental Review Tool and the AGFD HDMS species list; all of these species are included in **Table C-2**. These special status species and their likelihood of being present in the vicinity of the proposed Project are addressed below in four sections: 1) Areas of Biological Wealth, 2) Federally Listed Threatened and Endangered Species, 3) Other Special Status Species, and 4) Protected Native Plants.

Areas of Biological Wealth

There are no designated or proposed critical habitats within the Project area. The proposed Prickly Pear 230 kV Substation location has been previously disturbed and relatively devoid of vegetation. There is only limited Sonoran Desert scrub vegetation along the proposed 230 kV transmission line. No wildlife corridors, wetlands, riparian areas or Important Bird Areas are located within or adjacent to the Project.

Federally Listed Threatened and Endangered Species

The USFWS has not identified plant species listed as endangered under the ESA within the Project area. Based on field reconnaissance, there appear to be no suitable habitats for plants protected by the Arizona Native Plant Law, and none of these protected species are known to occur within three miles of the Project (USFWS, 2022).

The IPaC (USFWS, 2022) lists three species of wildlife with the potential to occur in the analysis area: California least tern (*Sterna antillarum browni)* (endangered), yellow-billed cuckoo (*Coccyzus americanus occidentalis*) (threatened), and monarch butterfly (*Danaus plexippus*) (candidate). The species potential to occur is summarized in **Table C-1**.

Table C-1
USFWS-listed Species

Species		USFWS Protection Status	Potential to Occur in Project Area (Justification)
Common name	**Scientific name**		
California least tern	*Sterna antillarum browni*	Endangered	Very low potential to pass through; no habitat within Project area.
Yellow-billed cuckoo	*Coccyzus americanus*	Threatened	No potential to occur; no habitat within Project area.
Monarch butterfly	*Danaus plexippus*	Candidate	No known wintering areas within the Project area. No habitat within Project area.

California Least Tern

Preferred habitat for the California least tern includes salt flats, broad sandbars, and barren shores along reservoirs and wide, shallow rivers. Nesting sites are chosen based on a lack of vegetation and proximity to fishing grounds. This species will, as needed, use non-traditional locations, such as gravel-mined areas and gravel rooftops for nesting sites. The tern is a colonial species and creates a shallow depression in the sand/gravel to create its nest. The nest is susceptible to inundation, predation, and pollution, all of which threaten the terns and their offspring (Cornell, 2022). Due to the lack of aquatic features (e.g., lakes rivers and streams) to provide foraging habitat within or adjacent to the Project, the

California least tern has a very low potential to pass through the area and no potential to use the area for nesting or foraging purposes.

Yellow-billed Cuckoo

The yellow-billed cuckoo is primarily found in high quality, desert riparian forest habitat dominated by native tree species, especially cottonwood and willow stands bordered by mesquite forested areas (Johnson, 2009). Yellow-billed cuckoos nest primarily in habitat dominated by native species with multistoried structure and high, dense canopies. Yellow-billed cuckoos tend to prefer nesting areas with lower overall temperature and high humidity, so tall shade trees and open water to increase humidity seem particularly important (USBR, 2008). Cuckoos generally do not use sites with canopy cover that is less than 40%, and greater than 65% is preferred. No desert riparian woodlands exist within the Project vicinity. Therefore, yellow-billed cuckoos are not expected to occur in the Project area for nesting or foraging purposes.

Monarch Butterfly

Significant declines in the population of migrating monarch butterflies (*Danaus plexippus*) have led to widespread concern about this species and the long-term persistence of the North American monarch migration. Augmenting larval feeding and adult nectaring opportunities are part of an international conservation effort for the monarch butterfly. Breeding habitat is characterized by the presence of early spring milkweed, the monarchs' host plant (Jepson et al., 2015). Suitable breeding and stop-over habitat do not exist within the Project area. No milkweed *(Asclepias* spp.*)* was observed along the proposed 230 kV transmission line corridor and limited nectaring opportunities exist due to sparse desert scrub vegetation. No monarchs were observed in the area. The proposed Prickly Pear 230 kV Substation site has been previously disturbed and is relatively devoid of vegetation; therefore, no habitat exists on that site. The AGFD Online Environmental Review Tool indicates that there are known occurrences of the Monarch butterfly within three miles of the Project, but due to the disturbed nature of the site and the surrounding areas, it is unlikely that monarch butterflies will use the area.

Other Special Status Species

The AGFD HDMS has identified 21 plant species that are protected under the Arizona Native Plant Law that have the potential to occur within Maricopa County. One species, crucifixion thorn, was observed during the native plant survey adjacent to the proposed 230 kV transmission line ROW. Crucifixion thorn is protected by the Arizona Native Plant Law. This species is not listed in the AGFD HDMS Maricopa County list and none of the 21 protected species recorded in the Maricopa County list are known to occur within three miles of the Project (AGFD, 2022).

There is potentially suitable habitat for four special status bird species that were included in the AGFD species lists, Online Environmental Review Tool, or the USFWS IPaC list. There is potentially suitable habitat for one bird species that also has documented

occurrences per the AGFD Online Environmental Review Tool—the western burrowing owl (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). As discussed above, surveys were conducted for western burrowing owls within the Project area. A small quantity of potentially suitable burrows was observed during these surveys, but no signs of habitation and no burrowing owl individuals were observed.

There is potentially suitable habitat for three other special status bird species within the Project area; American peregrine falcon (*Falco peregrinus anatum*, USFWS Species of Concern and AGFD SGCN 1A), Gila woodpecker (*Melanerpes uropygialis,* AGFD SGCN 1B, USFWS BCC) and Bendire's thrasher (*Toxostoma bendirei,* USFWS BCC) which are described in the following sections.

There is no suitable habitat and/or the Project area 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 Project is highly unlikely (**Table C-2**).

Bald and Golden Eagles

Bald Eagle

There is a very low potential for bald eagles to occur as there is a lack of roosting sites and foraging habitat within and in the vicinity of the Project. There is a very low potential for bald eagles to migrate through the Project due to the lack of suitable nesting and foraging habitats in the surrounding areas.

Golden Eagle

There is a very low potential for golden eagles to occur as there is a lack of nesting sites within and in the vicinity of the Project. There is a very low potential for golden eagles to forage within the Project due to the highly disturbed nature of the area and the distance to the nearest potentially suitable nesting habitat.

Birds of Conservation Concern (BCC)

The Project is located in the Sonoran Desert Bird Conservation Region (BCR). Birds of Conservation Concern that were included in the IPaC include the Gila woodpecker (*Melanerpes uropygialis*, AGFD SGCN 1B, USFWS BCC) and Bendire's thrasher (*Toxostoma bendirei,* USFWS BCC).

Gila Woodpecker

Gila woodpeckers are cavity nesters and use landscape saguaro cactus and large residential trees for nesting and foraging. There is no foraging or nesting habitat within the Project, but there may be suitable habitat in the vicinity. There is a very low potential for the Gila woodpecker to occur in the Project due to lack of vegetation and nesting habitat. The species may pass through the area on its way between suitable habitats. This species was not observed during any of the Project surveys.

Bendire's Thrasher

Bendire's thrasher can be found in open desert scrub habitat, and suitable habitat is limited to the small amount of Sonoran Desert scrub along the proposed 230 kV transmission line. Bendire's thrashers have the potential to nest in shrubs found along the proposed 230 kV transmission line, but no nests were observed during MBTA nest surveys, and no individuals were observed during any of the Project surveys.

Species Of Greatest Conservation Need

One Species of Greatest Conservation Need was identified by the AGFD species lists and Online Environmental Review Tool (AGFD 2021a, 2021b, 2022) that may have the potential to occur within the Project; the American peregrine falcon. Low-quality foraging habitat for American peregrine falcons is found within the proposed 230 kV transmission line area corridor, but there is no suitable nesting habitat.

Protected Native Plants

The Arizona Native Plant Law (A.R.S. § 3-904) (ANPL) identifies a lengthy list of plant species—largely cacti, agaves, yuccas, and desert trees—that are susceptible to removal for collection, landscaping, sale, or other commercial uses. The ANPL states that these plants shall not be taken, transported, or possessed from any land without permission and a permit from the ADA; it also requires notification prior to land clearing even if the plants will be destroyed. The proposed Prickly Pear 230 kV Substation has been previously disturbed and is devoid of vegetation. The proposed 230 kV transmission line is located within limited Sonoran Desert scrub and could require native plant removal within the structure locations.

Of the 21 special status plant species recorded in the AGFD HDMS having some potential to occur within Maricopa County, none have been recorded in or within three miles of the Project (AGFD, 2021c). Additionally, the elevation of the Project is outside of the range for these plants and/or there is no suitable habitat. However, the native plant field survey recorded one native plant not recorded on the AGFD HDMS list categorized as salvage restricted under A.R.S. § 3-903(B)(2) in the vicinity of the Project outside of the proposed 230 kV transmission line ROW.

Table C-2 Special Status Species with the Potential to Occur in Maricopa County				
Species		**Protection Status[1]**		
Common name	**Scientific name**	**ESA[2, 3]**	**Arizona SGCN[3]**	**Potential to Occur in Project Area (Justification)[4]**
Plants				
Pima Indian Mallow	*Abutilon parishii*	SC	SR	No (Elevation)
Tonto Basin Agave	*Agave delamateri*	SC	HS	No (Habitat)
Hohokam Agave	*Agave murpheyi*	SC	HS	No (Habitat)
Toumey Agave	*Agave toumeyana var. bella*	--	SR	No (Elevation)
Arizona Agave	*Agave x arizonica*	--	HS	No (Elevation)
Bigelow Onion	*Allium bigelovii*	--	SR	No (Elevation)
Crucifixion Thorn[5]	*Castela emoryi*[5]	--	SR	Yes (Observed During Field Survey)
Yavapai Hedgehog Cactus	*Echinocereus yavapaiensis*	--	SR	No (Habitat)
Acuna Cactus	*Echinomastus erectocentrus var. acunensis*	E	HS	No (Habitat)
Johnson's Fishhook Cactus	*Echinomastus johnsonii*	--	SR	No (Habitat)
Fish Creek Fleabane	*Erigeron piscaticus*	SC	SR	No (Elevation)
Ripley Wild-buckwheat	*Eriogonum ripleyi*	SC	SR	No (Elevation)
Desert Barrel Cactus	*Ferocactus cylindraceus*	--	SR	No (Habitat)
Emory's Barrel Cactus	*Ferocactus emoryi*	--	SR	No (Habitat)
Flannel Bush	*Fremontodendron californicum*	--	SR	No (Elevation)
Varied Fishhook Cactus	*Mammillaria viridifloria*	--	SR	No (Elevation)
Straw-top Cholla	*Opuntia echinocarpa*	--	SR	No (Habitat)
Cactus Apple	*Opuntia engelmannii var. flavispina*	--	SR	No (Elevation)
Roosevelt Dam Rockdaisy	*Perityle saxicola*	SC	--	No (Elevation)
Arizona Cliff Rose	*Purshia subintegra*	E	HS	No (Elevation)
Organ Pipe Cactus	*Stenocereus thurberi*	--	SR	No (Habitat)
Tumamoc Globeberry	*Tumamoca macdougalii*	--	SR	No (Habitat)
Mammals				
Harris' Antelope Squirrel	*Ammonospermophilus harrisii*	--	1B	No (Habitat)
Sonoran Pronghorn	*Antilocapra americana sonoriensis*	E	1A	No (Habitat)
Pale Townsend"s Big-eared Bat	*Corynorhinus townsendii pallescens*	SC	1B	No (Elevation)
Spotted Bat	*Euderma maculatum*	SC	1B	No (Habitat)
Greater Western Bonneted Bat	*Eumops perotis californicus*	SC	1B	No (Habitat)
Western Red Bat	*Lasiurus blossevillii*	--	1B	No (Elevation)
Western Yellow Bat	*Lasiurus xanthinus*	--	1B	No (Habitat)
Lesser Long-nosed Bat	*Leptonycteris curasoae yerbabuenae*	SC	1A	No (Habitat)
Antelope Jackrabbit	*Lepus alleni*	--	1B	No (Habitat)
California Leaf-nosed Bat	*Macrotus californicus*	SC	1B	No (Habitat)
Arizona Myotis	*Myotis occultus*	SC	1B	No (Habitat)
Cave Myotis	*Myotis velifer*	SC	1B	No (Habitat)
Yuma Myotis	*Myotis yumanensis*	SC	1B	No (Habitat)
Pocketed Free-tailed Bat	*Nyctinomops femorosaccus*	--	1B	No (Habitat)
Brazilian Free-tailed Bat	*Tadarida brasilensis*	--	1B	No (Habitat)
Kit Fox	*Vulpes macrotis*	--	1B	No (Habitat)
Birds				
Western Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	T	1A	No (Habitat)

Table C-2 Special Status Species with the Potential to Occur in Maricopa County				
Species		**Protection Status[1]**		
Common name	**Scientific name**	**ESA[2, 3]**	**Arizona SGCN[3]**	**Potential to Occur in Project Area (Justification)[4]**
Western Burrowing Owl	*Athene cunicularia hypugaea*	SC	1B	Yes (None Observed)
Bald Eagle	*Haliaeetus leucocephalus*	SC, BGEPA	1A	No (Habitat)
Yuma Ridgway's Rail	*Rallus longirostris yumanensis*	E	1A	No (Habitat)
California Least Tern	*Sterna antillarum browni*	E	--	No (Habitat)
Wood Duck	*Aix sponsa*	--	1B	No (Habitat)
American Bittern	*Botaurus lentiginosus*	--	1B	No (Habitat)
Ferruginous Hawk	*Buteo regalis*	SC	1B	No (Habitat)
Golden Eagle	*Aquila chrysaetos*	BGEPA	1B	No (Habitat)
Swainson's Thrush	*Catharus ustulatus*	--	1B	No (Habitat)
Snowy Plover	*Charadrius nivosus nivosus*	--	1B	No (Habitat)
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	E	1A	No (Habitat)
American Peregrine Falcon	*Falco peregrinus anatum*	SC	1A	Yes (None Observed)
Cactus Ferruginous Pygmy-owl	*Glaucidium brasilianum cactorum*	SC	1B	No (Habitat)
Mississippi Kite	*Ictinia mississippiensis*	--	1B	No (Habitat)
Mexican Spotted Owl	*Strix occidentalis lucida*	T	1A	No (Habitat)
LeConte's Thrasher	*Toxostoma lecontei*	--	1B	No (Habitat)
Gilded Flicker	*Colaptes chrysoides*	--	1B	No (Habitat)
Gila Woodpecker	*Melanerpes uropygialis*	BCC	1B	Yes (None Observed)
Lincoln's Sparrow	*Melospiza lincolnii*	--	1B	No (Habitat)
Abert's Towhee	*Melozone aberti*	--	1B	No (Habitat)
Yellow Warbler	*Setophaga petechia*	--	1B	No (Habitat)
Arizona Bell's Vireo	*Vireo bellii arizonae*	--	1B	No (Habitat)
Bendire's Thrasher	*Toxostoma bendirei*	BCC	--	Yes (None Observed)
Reptiles				
Pai Striped Whiptail	*Aspidoscelis pai*	--	1B	No (Habitat)
Giant Spotted Whiptail	*Aspidoscelis stictogramma*	SC	1B	No (Habitat)
Red-backed Whiptail	*Aspidoscelis xanthonota*	SC	1B	No (Habitat)
Variable Sandsnake	*Chilomeniscus stramineus*	--	1B	No (Habitat)
Resplendent Shovel-nosed Snake	*Chionactis annulata*	SC	--	No (Habitat)
Sonoran Collared Lizard	*Crotapthyus nebrius*	--	1B	No (Habitat
Tucson Shovel-nosed Snake	*Chionactis occipitalis klauberi*	--	1A	No (Habitat)
Sonoran Whipsnake	*Coluber bilineatus*	--	1B	No (Habitat)
Tiger Rattlesnake	*Crotalus tigris*	--	1B	No (Habitat)
Sonoran Desert Tortoise	*Gopherus morafkai*	--	1A	No (Habitat)
Gila Monster	*Heloderma suspectum*	--	1A	No (Habitat)
Arizona Mud Turtle	*Kinosternon arizonense*	--	1B	No (Habitat)
Rosy Boa	*Lichanura roseofusca*	SC	1B	No (Habitat)
Saddled Leaf-nosed Snake	*Phyllorhynchus browni*	--	1B	No (Habitat)
Common Chuckwalla	*Sauromalus ater*	SC	--	No (Habitat)
Sonoran Coralsnake	*Micruroides euryxanthus*	--	1B	No (Habitat)
Goode's Horned Lizard	*Phrynosoma goodie*	--	1B	No (Habitat)
Regal Horned Lizard	*Phrynosoma solare*	--	1B	No (Habitat)
Northern Mexican Gartersnake	*Thamnophis eques megalops*	T	1A	No (Habitat)
Mohave Fringe-toed Lizard	*Uma scoparia*	--	1B	No (Habitat)

Table C-2 Special Status Species with the Potential to Occur in Maricopa County				
Species		**Protection Status[1]**		
Common name	**Scientific name**	**ESA[2, 3]**	**Arizona SGCN[3]**	**Potential to Occur in Project Area (Justification)[4]**
Bezy's Night Lizard	*Xantusia bezyi*	--	1B	No (Habitat)
Amphibians				
Sonoran Desert Toad	*Incilius alvarius*	--	1B	No (Habitat)
Lowland Leopard Frog	*Lithobates yavapaiensis*	SC	1A	No (Habitat)
Arizona Toad	*Anaxyrus microscaphus*	SC	1B	No (Habitat)
Sonoran Green Toad	*Anaxyrus retiformis*	--	1B	No (Habitat)
Chiricahua Leopard Frog	*Lithobates chiricahuensis*	T	1A	No (Habitat)
Lowland Burrowing Tree Frog	*Smilisca fodiens*	--	1B	No (Habitat)
Fish				
Gila Longfin Dace	*Agosia chrysogaster chrysogaster*	SC	1B	No (Habitat)
Desert Sucker	*Catostomus clarkii*	SC	1B	No (Habitat)
Sonora Sucker	*Catostomus insignis*	SC	1B	No (Habitat)
Desert Pupfish	*Cyprinodon macularius*	E	1A	No (Habitat)
Bonytail Chub	*Gila elgans*	E	1A	No (Habitat)
Roundtail Chub	*Gila robusta*	SC	1A	No (Habitat)
Gila Topminnow	*Poeciliopsis occidentalis occidentalis*	E	1A	No (Habitat)
Colorado Pikeminnow	*Ptychocheilus lucius*	E,NE	1A	No (Habitat)
Speckled Dace	*Rhinichthys osculus*	SC	1B	No (Habitat)
Razorback Sucker	*Xyrauchen texanus*	E	1A	No (Habitat)
Invertebrates				
Maricopa Tiger Beetle	*Cicindela oregona maricopa*	SC	--	No (Habitat)
Monarch Butterfly	*Danaus plexippus*	C	--	No (Habitat)
Phoenix Talussnail	*Maricopella allynsmithi*	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 Species of Concern, SR=Salvage Restricted, HS=Highly Safeguarded
[2] USFWS, 2022
[3] AGFD, 2021a, b, 2022
[4] Elevation means the species does not have the potential to occur because the Project is not within its elevation requirements. Habitat means the Project 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
[5] The crucifixion thorn (*Castela emoryi)* is not listed on the AGFD HDMS Maricopa County list but was observed during field surveys.

Noxious Weeds

The state of Arizona maintains a list of noxious weeds in three categories: Class A, Class B, and Class C. Class A species are those that are not known to occur in Arizona, are of limited distribution, and are of high priority for quarantine, control, or mitigation. Class B noxious weeds are species known to occur but are of limited distribution in Arizona and may be high-priority pests for quarantine, control, or mitigation if a significant threat to crop, commodity, or habitat exists. Class C noxious weeds are species of plants that are

widespread but may be recommended for active control based on risk assessment. Weed species are expected to occur within disturbed areas of the Project. One invasive weed species, stinknet, was observed along the proposed 230 kV transmission line ROW during the native plant survey (SRP, 2022b). This species is a Class B noxious weed in Arizona.

Summary of Potential Effects

The following sections address the potential effects from development of the Project components to special status species identified by the agencies as having the potential to occur within the Project area.

Areas of Biological Wealth

The Project area does not overlap with any areas of biological wealth. Residential and industrial development, along with its associated roads and infrastructure, has converted and degraded areas of natural vegetation (wildlife habitat). 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. No wildlife corridors, wetlands, riparian areas, or Important Bird Areas are located within or adjacent to the Project.

Federally Listed Threatened and Endangered Species

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.

Other Special-Status Species

Four other special status wildlife species have the potential to occur—western burrowing owl, peregrine falcon, Gila woodpecker, and Bendire's thrasher. 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 surveys, and they are unlikely to nest within the active construction areas. With the incorporation of SRP's proposed measures (**Table C-3**), impacts to western burrowing owls 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 field surveys. With the incorporation of SRP's proposed measures (**Table C-3**), 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 surveys. With the incorporation of SRP's proposed measures (**Table C-3**), impacts to Gila woodpeckers are expected to be minimal.

There is the potential for Bendire's thrasher to be directly or indirectly impacted by construction activities, including the temporary displacement of Bendire's thrasher from the construction area, possible abandonment of nests due to construction activities in the vicinity of 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. No Bendire's thrashers were observed during field surveys. With the incorporation of SRP's proposed measures (**Table C-3**), impacts to Bendire's thrashers are expected to be minimal.

Protected Native 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 Project (AGFD, 2021c). Additionally, the elevation of the Project is outside of the range for these plants and/or there is no suitable habitat. The native plant field survey recorded one native plant categorized as salvage restricted under A.R.S. § 3-903(B)(2) in the vicinity of the Project outside of the proposed 230 kV transmission corridor in an area that would not be disturbed by Project construction. The Project would, therefore, have no direct or indirect impacts on threatened, endangered, and state-protected plants.

Noxious Weeds

Construction activities have the potential to transport noxious weed species to the Project area and create microhabitats that would be suitable for the spread of noxious weeds. 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 (**Table C-3**).

Summary of Effects by Project Component

Proposed Prickly Pear 230 kV Substation

The proposed Prickly Pear 230 kV Substation would be located on private land within the Data Center. The proposed Prickly Pear 230 kV Substation area is within previously disturbed lands. The construction area contains no foraging or nesting habitat for any special status species. The limited Sonoran Desert scrub vegetation to the west of this area may contain suitable nesting habitat for western burrowing owls, but the lack of suitable foraging areas within the limits of construction of the proposed Prickly Pear 230 kV Substation minimize the potential for occurrence. The urban areas east of the proposed Prickly Pear 230 kV Substation contain ornamental and shade trees that may contain suitable nesting and foraging habitat for Gila woodpecker and various other MBTA-protected bird species (no nests or special status species were observed during the field surveys). These areas would not be directly impacted by Project activities.

Potential impacts to special status species related to the construction of the proposed Prickly Pear 230 kV 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 relatively small and vehicle speed would 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. The proposed 230 kV transmission line and other substation infrastructure would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (Avian Power Line Interaction Committee [APLIC], 2012 and 2022). With the incorporation of SRP's proposed measures (**Table C-3**), the Project is anticipated to have minimal impact on the western burrowing owl, Gila woodpecker, peregrine falcon, Bendire's thrasher and other special status species that may be encountered.

Proposed 230 kV Transmission line

Potential impacts to special status species related to the construction of the proposed 230 kV transmission line 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 would be limited to 15 mph, reducing the potential for injury or death to special status species during construction due to vehicle strikes. The proposed 230 kV transmission line would be built along an existing 69 kV transmission line and would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC, 2012 and 2022). With the incorporation of SRP's proposed measures (**Table C-3**), construction activities along the proposed 230 kV transmission line are anticipated to have minimal impacts on

the western burrowing owl, Gila woodpecker, peregrine falcon, Bendire's thrasher, and other special status species that may be encountered.

Mitigation and Conclusion

The proposed Prickly Pear 230 kV Substation has been previously disturbed, significantly reducing its habitat quality. The proposed 230 kV transmission line provides limited Sonoran Desert scrub habitat. The disturbances associated with construction of the proposed Prickly Pear 230 kV Substation would occur in previously disturbed areas. The sensitive species with the potential to occur would not be expected to be negatively affected because of the small amount of suitable habitat and/or implementation of mitigation measures (**Table C-3**) that would be employed to avoid or minimize the potential risk to this and other species.

If construction occurs during the nesting season, a pre-construction protocol survey would be conducted *30 days prior to construction* 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, on-site personnel would contact the SRP Avian Protection Program for steps to take to ensure the nesting birds are protected. SRP would 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, peregrine falcon, Bendire's thrasher and other special status species that may be encountered. With implementation of mitigation, the proposed Project is not likely to significantly affect any rare, endangered, or special status species. No ESA-listed species are expected to be present and are not likely to be affected by the proposed Project. No protected areas, or any areas of biological wealth, are within the Project area.

Table C-3
SRP Proposed Measures

BIOLOGICAL RESOURCES
Vegetation
Adverse effects on vegetation during construction would be minimized as follows:
• 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.
The following prescriptions would prevent the spread of invasive weeds into previously uninfested areas in the designated construction ROW.
• 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.
Wildlife
Construction activities and vehicle operation would be conducted to minimize potential impacts or disturbance of wildlife.
• 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.

Table C-3 SRP Proposed Measures
• During construction, work areas would be checked for animals before daily work is initiated to minimize harm.
Design would minimize electrocution and collision potential for birds:
• 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 (APLIC, revised electronic version 2022)
Implement conservation measures to decrease the likelihood of take of special status wildlife species and impacts to critical habitat.
• 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 would 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, on-site personnel would contact SRP's Avian Protection Program for steps to take to ensure the nesting birds are protected.

References

AECOM. 2021. Summary of Findings from Migratory Bird Nest Surveys and Western Burrowing Owl Surveys for the SRP Substation and Associated Areas – Project Huckleberry – Mesa Eastmark Site.

Arizona Game and Fish Department (AGFD). 2006. DRAFT. Arizona's Comprehensive Wildlife Conservation Strategy: 2005-2015. Arizona Game and Fish Department, Phoenix, Arizona.

AGFD. 2021a. Arizona Heritage Data Management System (HDMS), special status species by county, taxon, scientific name (updated July 1, 2021). [Web Page] Located at http://www.azgfd.gov/w_c/edits/documents/ssspecies_bycounty_001.pdf. Accessed: March 23, 2022.

AGFD. 2021b. Arizona HDMS, element status designations by county, taxon, scientific name (updated July 1, 2021). [Web Page] Located at http://www.azgfd.gov/w_c/edits/documents/allspecies_bycounty_001.pdf. Accessed: March 23, 2022.

AGFD. 2022. Arizona's On-line Environmental Review Tool. [Web Page] Located at http://www.azgfd.gov/hgis/. Project ID: HGIS-15825. Accessed: March 24, 2022.

Avian Power Line Interaction Committee (APLIC). 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Edison Electric Institute and Avian Power Line Interaction Committee. Washington D.C.

APLIC. 2022. *Suggested Practices for Avian Protection on Power Lines: The State of the Art*. Edison Electric Institute and Avian Power Line Interaction Committee. Electronic version, www.aplic.org.

Cornell Lab of Ornithology (Cornell). 2022. Yellow-billed Cuckoo. Available at https://www.allaboutbirds.org/guide/Yellow-billed_Cuckoo. Accessed: March 24, 2022.

Jepsen, S., D. F. Schweitzer, B. Young, N. Sears, M. Ormes, and S. H. Black. 2015. *Conservation Status and Ecology of Monarchs in the United States*. 36 pp. NatureServe, Arlington, Virginia, and the Xerces Society for Invertebrate Conservation, Portland, Oregon.

Johnson, M.J. 2009. Understanding the habitat needs of the declining western yellow-billed cuckoo. U.S. Geological Survey Fact Sheet 2009-3091.

Salt River Project (SRP). 2022a. Summary of Findings from the Burrowing Owl Survey for the Huckleberry Transmission Line Right-of-Way.

SRP. 2022b. Summary of Findings from Native Plant Survey for the Proposed Project Huckleberry 230 kV Transmission Line Right-of-Way.

SEINet. 2021. Southwest Biodiversity Arizona – New Mexico Chapter. Various Plant Species. https://swbiodiversity.org/seinet/index.php. Accessed: March 23, 2022.

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

U.S. Bureau of Reclamation (USBR). 2008. Species Accounts for the Lower Colorado River Multi Species Conservation Program (LCRMSCP). Lower Colorado River Multi-Species Conservation Program.

U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation Resource List, List of Species. [Web Page] Located at http://www. http://ecos.fws.gov/ipac/. Accessed: March 24, 2022.

EXHIBIT C-1
USFWS IPAC RESULTS

IPaC Information for Planning and Consultation **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

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

Endangered species

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

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

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

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

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

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

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

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

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

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Yellow-billed Cuckoo Coccyzus americanus 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

Insects

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

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.)
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
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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

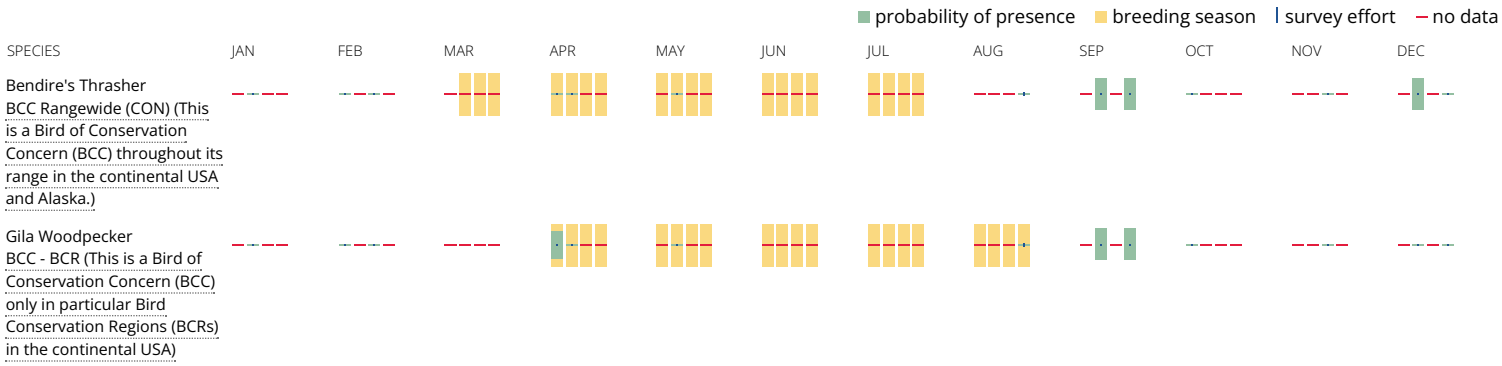
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

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

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



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

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

What does IPaC use to generate the 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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

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

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

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

Data exclusions

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

EXHIBIT C-2
AGFD ONLINE ENVIRONMENTAL REVIEW TOOL RESULTS

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:
Huckleberry 230 kilovolt (kV) Transmission Line

Project Description:
Transmission line.

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

Contact Person:
William Van Vleet

Organization:
Heritage Environmental

On Behalf Of:
CONSULTING

Project ID:
HGIS-15825

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.

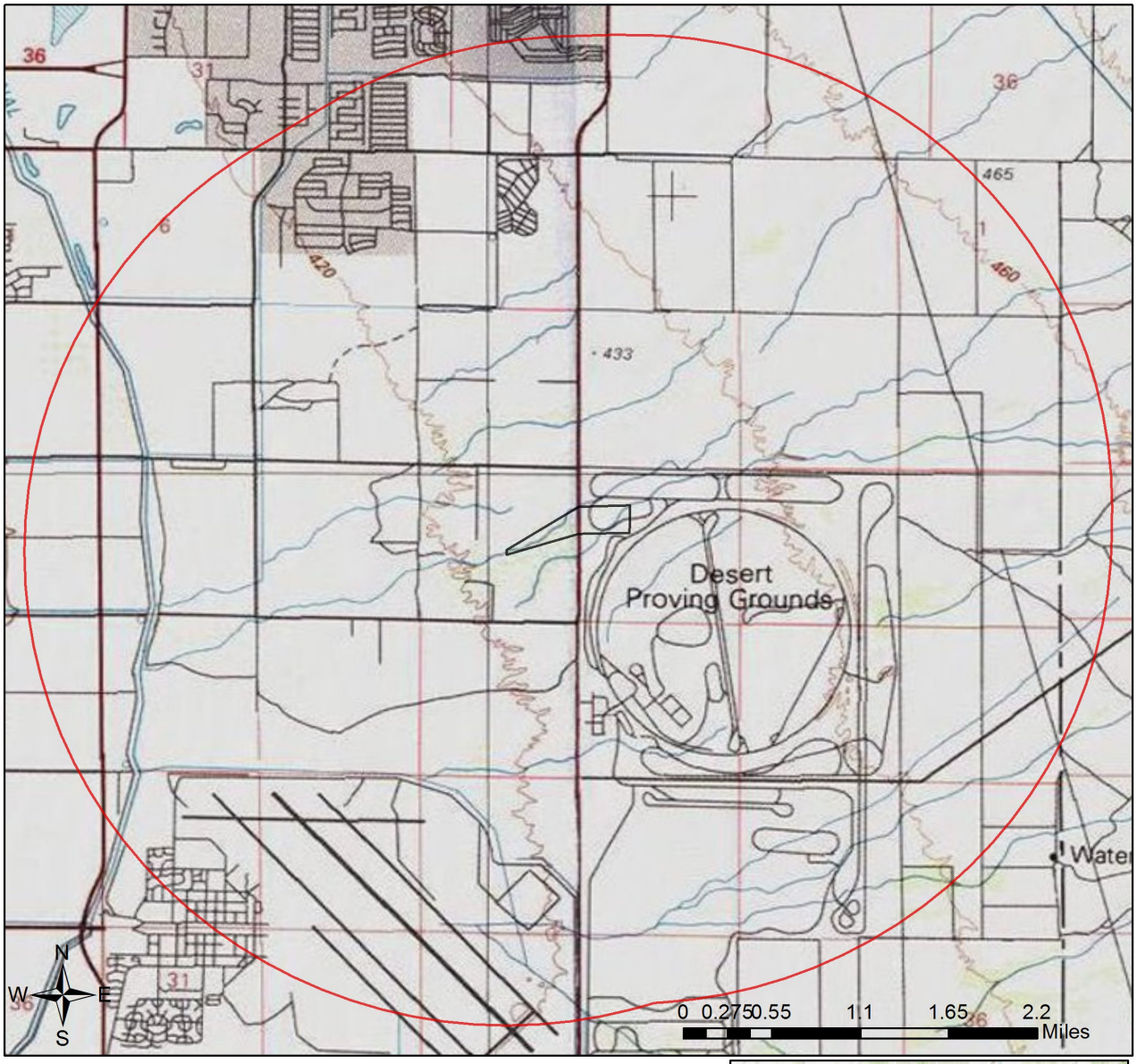
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

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

Huckleberry 230 kilovolt (kV) Transmission Line

USA Topo Basemap With Locator Map



Project Boundary

Buffered Project Boundary

Project Size (acres): 64.64

Lat/Long (DD): 33.3444 / -111.6353

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T1S, R7E

USGS Quad(s): HIGLEY

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

Huckleberry 230 kilovolt (kV) Transmission Line

Web Map As Submitted By User

Project Boundary

Buffered Project Boundary

Project Size (acres): 64.64

Lat/Long (DD): 33.3444 / -111.6353

County(s): Maricopa

AGFD Region(s): Mesa

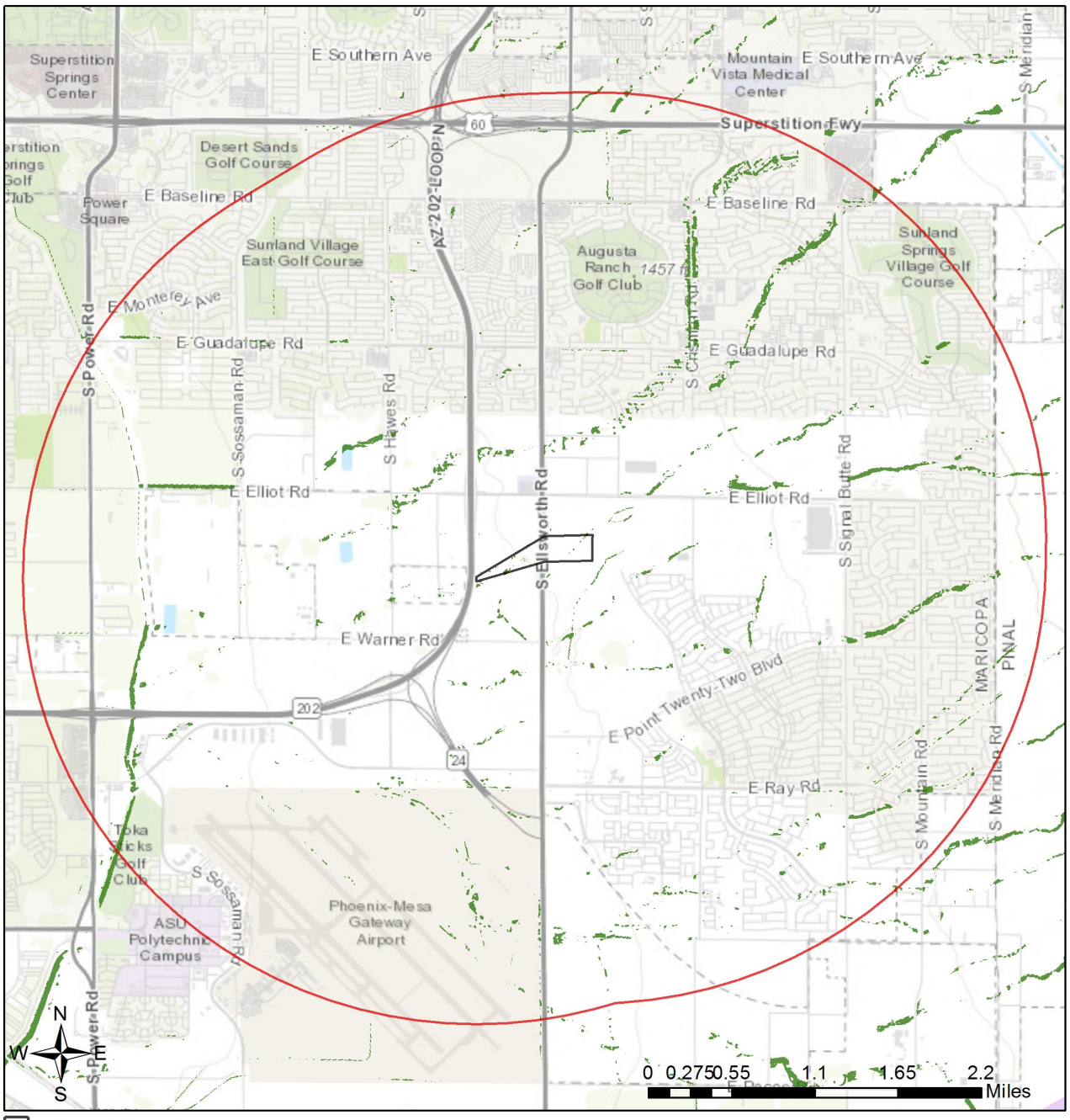
Township/Range(s): T1S, R7E

USGS Quad(s): HIGLEY

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

Huckleberry 230 kilovolt (kV) Transmission Line

Important Areas



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

Project Size (acres): 64.64

Lat/Long (DD): 33.3444 / -111.6353

County(s): Maricopa

AGFD Region(s): Mesa

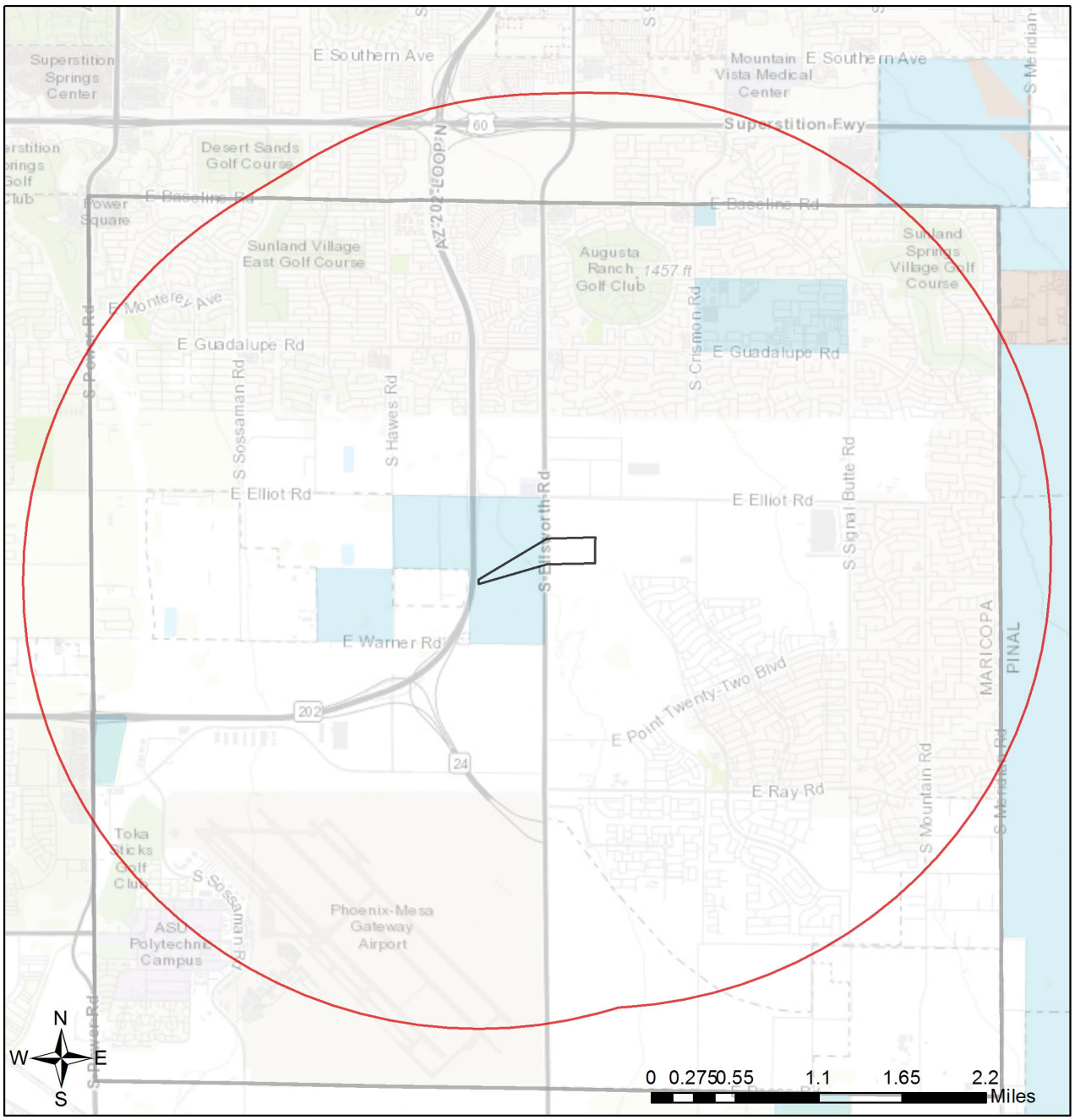
Township/Range(s): T1S, R7E

USGS Quad(s): HIGLEY

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

Huckleberry 230 kilovolt (kV) Transmission Line

Township/Ranges and Land Ownership



- Project Boundary
- Buffered Project Boundary
- Township/Ranges

Land Ownership

- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge

Project Size (acres): 64.64

Lat/Long (DD): 33.3444 / -111.6353

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T1S, R7E

USGS Quad(s): HIGLEY

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
Danaus plexippus	Monarch	C		S		

Note: Status code definitions can be found at https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/
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Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Riparian Area	Riparian Area					

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 harrisii	Harris' Antelope Squirrel					1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Calypte costae	Costa's Hummingbird					1C
Chilomeniscus stramineus	Variable Sandsnake					1B
Chionactis annulata	Resplendent Shovel-nosed Snake	SC				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
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1A
Haliaeetus leucocephalus	Bald Eagle	SC, BGA	S	S		1A
Heloderma suspectum	Gila Monster					1A
Incilius alvarius	Sonoran Desert Toad					1B
Lasiurus blossevillii	Western Red Bat		S			1B
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1A
Lepus alleni	Antelope Jackrabbit					1B
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolnii	Lincoln's Sparrow					1B

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
Melozone aberti	Abert's Towhee		S			1B
Micrathene whitneyi	Elf Owl					1C
Micruroides euryxanthus	Sonoran Coralsnake					1B
Myiarchus tyrannulus	Brown-crested Flycatcher					1C
Myotis occultus	Arizona Myotis	SC		S		1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Oreoscoptes montanus	Sage Thrasher					1C
Oreothlypis luciae	Lucy's Warbler					1C
Phrynosoma solare	Regal Horned Lizard					1B
Phyllorhynchus browni	Saddled Leaf-nosed Snake					1B
Setophaga petechia	Yellow Warbler					1B
Sphyrapicus nuchalis	Red-naped Sapsucker					1C
Spizella breweri	Brewer's Sparrow					1C
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Toxostoma lecontei	LeConte's Thrasher			S		1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	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
Callipepla gambelii	Gambel's Quail					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	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 (https://www.fws.gov/office/arizona-ecological-services).

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:

This review has identified **riparian areas** within the vicinity of your project. During the planning stage of your project, avoid, minimize, or mitigate any potential impacts to riparian areas identified in this report. Riparian areas play an important role in maintaining the functional integrity of the landscape, primarily by acting as natural drainages that convey water through an area, thereby reducing flood events. In addition, riparian areas provide important movement corridors and habitat for fish and wildlife. Riparian areas are channels that contain water year-round or at least part of the year. Riparian areas also include those channels which are dry most of the year, but may contain or convey water following rain events. All types of riparian areas offer vital habitats, resources, and movement corridors for wildlife. The Pinal County Comprehensive Plan (i.e. policies *6.1.2.1* and *7.1.2.4*), Open Space and Trails Master Plan, Drainage Ordinance, and Drainage Design Manual all identify riparian area considerations, guidance, and policies. Guidelines to avoid, minimize, or mitigate impacts to riparian habitat can be found at https://www.azgfd.com/wildlife/planning/wildlifeguidelines/. Based on the project type entered, further consultation with the Arizona Game and Fish Department and Pinal County may be warranted.

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/.