

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 South Mountain Transmission Project (SMT Project 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**).
- AGFD Review of the SMT Project (**Exhibit C-3**).

The AGFD Online Environmental Review Tool database query establishes a buffer beyond the Project to search for occurrence records and the presence of modeled habitat (AGFD 2024a). The size of the buffer depends on the type of project being considered. For the anticipated work areas for this Project, the buffer is three miles beyond the Project as defined by the AGFD Online Environmental Review Tool.

In addition, a KPE biologist with expertise in the biology of flora and fauna of the region completed an on-ground habitat assessment along the Project routes. All plant and wildlife species observed in the Project area during surveys on May 21, 2024, were recorded (see **Exhibit D** for a complete list), and the site was assessed to determine if habitat features for species protected under the federal, state, or local regulations were present in the Project area and vicinity.

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 (ESA) of 1973, as amended. 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 Migratory Bird Treaty Act (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 of Special 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 2022 (AGFD, 2022) and is now called the Arizona Wildlife Conservation Strategy (AWCS), making minor refinements to SWAP criteria to provide clarity. The AWCS identifies Species of Greatest Conservation Need

(SGCN) in several tiers. SGCN was scored on the following seven criteria: Extirpated Status, Federal or Legal Status, Declining Status, Disjunct Status, Demographic Status, Concentration Status, and Distribution Status. Tier 1 species were deemed vulnerable in at least one of the previous categories and is at least one of the following: federally listed as endangered or threatened under the ESA, recently removed from ESA and currently requires post-delisting monitoring, specifically covered under a signed conservation agreement such as Candidate Conservation Agreement (CCA) or a Candidate Conservation Agreement with Assurances (CCAA) or a Conservation Strategy and Assessment or Strategic Conservation Plan, or a closed season species (i.e., no take permitted) as identified in AGFD Orders 40, 41, 42 or 43 (AGFD, 2022). Tier 2 species were deemed vulnerable in at least one of the seven criteria listed above but matched none of the additional criteria also listed above. Tier 3 species have “unknown status” in at least one of the seven criteria listed above. These species have no assessed status, and thus represent priority research and information needs. With more information on these species, their status is likely to change.

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) State Trust Land (State 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

A KPE biologist surveyed the area in and around the Project routes on May 21, 2024. The biologist documented existing conditions and noted any habitat features that may be important to special-status species or related to areas of biological wealth in the Project area.

The USFWS IPaC database was queried in May and then again on July 8, 2024, to generate an unofficial list of ESA-listed species that have the potential to occur in the Study Area (USFWS, 2024d) (**Exhibit C-1**), see **Table C-1**. In addition, the AGFD Online Environmental Review Tool was queried in May and then again on July 8, 2024, to generate a list of special-status species with records within three miles of the Project area and a list of SGCN with modeled suitable habitat within three miles of the Project area, see **Table C-2** (AGFD, 2024a) (**Exhibit C-2**).

Summary of Occurrence

The USFWS and AGFD identified several rare, endangered, threatened, and other special-status species that are known to occur or could occur in the region (i.e., along the Project routes for USFWS and within a three-mile buffer of the Project for AGFD). These protected areas, 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 (AGFD, 2024a; USFWS, 2024d).

Areas of Biological Wealth

There are no designated or proposed critical habitats within the Project area (USFWS, 2024d).

Several areas of biological wealth occur in the vicinity of the Project. The Salt River – Saguaro Lake to Gila River Riparian Movement Area is located approximately 0.7 miles north of the northernmost point (AGFD, 2012). The Gila River Landscape Movement Area and Estrella Mountain – South Mountain Landscape Movement Area are located approximately 2.3 miles southeast and approximately three miles southeast of the southernmost point on the Project routes, respectively (AGFD, 2012).

Pinal County Riparian Areas are mapped within three miles of the Project (AGFD, 2024a). This riparian category was developed to provide planners and other project proponents with the information to identify opportunities to protect riparian areas, open spaces, and other natural resources throughout Pinal County and the surrounding areas (AGFD and Pinal County, 2019). No native riparian areas were observed within the Project area during field surveys (see **Exhibit D**). There is a small corridor of historically riparian habitat mapped along the southern terminus of the proposed Project area (see **Exhibit C-2**); however, the entire portion of the mapped riparian habitat in the vicinity of the Project area is now occupied by agricultural operations and development.

The closest Important Bird Area (IBA), the Lower Salt and Gila Rivers Ecosystem IBA, is approximately 2.6 miles west of the Project (Audubon, 2024). The habitat assessment survey determined there are no wildlife corridors, wetlands, native riparian areas nor IBAs located within or adjacent to the Project.

Federally Listed Threatened and Endangered Species

The USFWS IPaC identified six wildlife species protected under the ESA and one ESA candidate invertebrate species (USFWS, 2024d). The species’ federal status and potential for occurrence in the vicinity of the Project are presented in **Table C-1**.

Table C-1 USFWS-Listed Species			
Species		USFWS Protection Status	Occurrence Status (Justification)
Common name	Scientific name		
Mammals			

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Table C-1 USFWS-Listed Species			
Species		USFWS Protection Status	Occurrence Status (Justification)
Common name	Scientific name		
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	Experimental Population, Non-essential	Unlikely to occur. Suitable desert habitat is not present within the Project area. The Project area is unlikely to be used for breeding or foraging due to the scarcity of native grassland and proximity to developed areas and highways. This species did not have occurrence records within three miles of the Project (AGFD 2024a), and was not observed during the field assessment.
Birds			
Cactus Ferruginous Pygmy-Owl	<i>Glaucidium brasilianum cactorum</i>	Threatened	Unlikely to occur; Suitable cottonwood-mesquite riparian areas and Sonoran desertscrub habitat do not occur within the Project area. The Project area is unlikely to be used for breeding and nesting due to the absence of Saguaro cacti and other suitable nesting substrates as well as suitable habitat. This species did not have occurrence records within three miles of the Project (AGFD 2024a), and was not observed during the field assessment.
California Least Tern	<i>Sterna antillarum browni</i>	Endangered	Unlikely to occur. There is no suitable sandbar habitat within the Project area. The Project area is unlikely to be used for breeding or nesting due to the absence of broad shore areas. This species did not have occurrence records within three miles of the Project (AGFD 2024a), and was not observed during the field assessment.

Table C-1 USFWS-Listed Species			
Species		USFWS Protection Status	Occurrence Status (Justification)
Common name	Scientific name		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened	Unlikely to occur. Suitable riparian habitat for this species is not present in the Project area. The Project area is unlikely to be used for breeding, migration or dispersal due to the scarcity of riparian trees. This species did not have occurrence records within three miles of the Project (AGFD 2024a), and was not observed during the field assessment.
Yuma Ridgway's Rail	<i>Rallus obsoletus yumanensis</i>	Endangered	Unlikely to occur. There is no suitable marsh habitat for this species in or adjacent to the Project area. This species did not have occurrence records within three miles of the Project (AGFD 2024a), and was not observed during the field assessment.
Fish			
Gila Topminnow (incl. Yaqui)	<i>Poeciliopsis occidentalis</i>	Endangered	Unlikely to occur. There is no suitable aquatic habitat for this species in the Project area. The Project area is distant from aquatic resources with habitat to support this species. This species did not have occurrence records within three miles of the Project (AGFD 2024a) and was not observed during the field assessment.
Insects			

Table C-1 USFWS-Listed Species			
Species		USFWS Protection Status	Occurrence Status (Justification)
Common name	Scientific name		
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	May occur. This species may be present as transients during migration or as occasional individuals passing through the Project area enroute to larval food plants or nectar resources. No milkweed (<i>Asclepias</i>) species were observed within the Project area for larval use, but nectar sources are available for foraging and migration.

Sonoran Pronghorn

The Sonoran pronghorn is a desert subspecies of pronghorn that lives in dry plains and deserts. In southwestern Arizona, they prefer broad alluvial valleys with granite mountains and mesas that separate them (USFWS, 2024a). Due to the developed nature of the Project area (immediately bordering South Mountain Loop 202 Freeway (Loop 202) and lack of suitable habitat within the Project area or surrounding areas, the Sonoran pronghorn is unlikely to pass through the Project area or to use the area for breeding or foraging purposes.

Cactus Ferruginous Pygmy-Owl

In Arizona, cactus ferruginous pygmy-owls typically occur within 1,000 to 4,000 feet elevation. Historically, cactus ferruginous pygmy-owls were documented in cottonwood-mesquite forests and mesquite riparian woodlands along the Gila and Salt Rivers and major tributaries and Sonoran desertscrub. Currently, most cactus ferruginous pygmy-owls are found in Sonoran desertscrub in southern Arizona (USFWS, 2024b). Although the proposed Project area is within elevation range for this species (just above 1,000 feet), they are not likely to occur in the Project area for nesting or foraging purposes as there is no Sonoran desertscrub or otherwise suitable habitat for cactus ferruginous pygmy-owls within the 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 Lab of Ornithology, 2024b). Although the Project is located approximately 1.25 miles south of the Salt River, due to the lack of natural aquatic features (e.g., lakes, rivers, and streams), there is minimal foraging habitat within or adjacent to the Project. As a result, the California least tern is unlikely to occur within the Project area or 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 percent, and greater than 65 percent is preferred. No desert riparian woodlands or other vegetated areas with suitable canopy cover exist within the immediate Project vicinity. Therefore, yellow-billed cuckoos are not likely to occur in the Project area for nesting or foraging purposes.

Yuma Ridgway's Rail

The Yuma Ridgway's rail prefers to forage and nest in wet areas with dense vegetation, such as mud-flats, sandbars, and fresh-water marshes. They prefer areas with cattail or bulrush but have been known to forage in marshes with little vegetation. Optimal habitats are mosaics of open water areas and vegetated areas, with the water being less than 12 inches deep (USFWS, 2024c). The Project is located approximately 1.25 miles south of the Salt River. However, due to the lack of aquatic features to provide foraging habitat within or adjacent to the Project, the Yuma Ridgway's rail is unlikely to use the area for nesting or foraging purposes.

Gila Topminnow

The Gila topminnow is native to the greater Gila River watershed in Arizona and New Mexico. The typical habitat of Gila topminnow includes shallow warm water, small streams or marginal areas of larger more permanent water sources, constantly flowing springs, marshes (ciénegas), and permanent and intermittent streams (Magana et al., 2002). As there are no natural aquatic features (e.g., rivers and streams) within the Project area, the Gila topminnow is not likely to occur within the Project area.

Monarch Butterfly

Significant declines in the population of migrating monarch butterflies 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 milkweed species, the monarchs' host plant (Jepson et al. 2015). Suitable breeding habitat does not exist within the Project area. No milkweed species were observed in the Project area nor were monarch individuals during the habitat assessment survey. There is a low likelihood for monarch individuals to pass through, but due to the disturbed nature of the site and the surrounding areas, it is unlikely that monarch butterflies will deposit eggs within or around the Project area.

Other Special-Status Species

Other special-status species include the following:

- Eagles protected by the BGEPA.
- Birds of Conservation Concern (BCC), which are bird species, beyond those designated as federally threatened or endangered, that represent the USFWS's highest conservation priorities. The relevant BCC for this analysis is those identified by the USFWS (2021) as occurring in Bird Conservation Region (BCR) 33.
- SGCN identified by AGFD's AWCS, which are species in need of conservation efforts to preclude them from listing under the ESA. Species are scored on the following seven criteria: Extirpated Status, Federal or State Legal Status, Declining Status, Disjunct Status, Demographic Status, Concentration Status, and Distribution Status. Each criteria contains a score from "0" to "2," with "0" indicating insufficient data, "1" indicating that the vulnerability criterion is met, and "2" indicating that the species does not meet the vulnerability criterion. If a species ranks as "vulnerable" (i.e., score = "1") under one or more of the seven vulnerability criteria, it was included in the SGCN list. Species were considered to have "unknown status" if there were insufficient data to determine the species' vulnerability under one or more of the criteria (i.e., if none of the seven criteria were scored as "1," but one or more of the seven categories scored "0"). Following this initial vulnerability assessment scoring, the resulting SGCN list was further refined into three tiers (AGFD, 2022).
 - Tier 1 species are those deemed vulnerable (scored a "1") in at least one of the seven categories *and* is either federally listed as endangered or threatened under the ESA, recently removed from the ESA and currently requires post-delisting monitoring, specifically covered under a signed CCA/CCAA/Conservation Strategy and Assessment/Strategic Conservation Plan, or considered to be a closed season species (i.e., no take permitted) as identified in Arizona Game and Fish Commission Orders 40, 41, 42 or 43.

- Tier 2 species are those deemed vulnerable (scored a “1”) in at least one of the seven categories but matched none of the additional criteria for Tier 1.
- Tier 3 species are those with “unknown status” in at least one of the seven categories but do not rise to the classification of Tier 2. These species are those for which status is unable to be assessed and, thus, represent priority research and information needs. As more information becomes available, their tier status will be reevaluated (AGFD, 2022).

The species in these categories (other than those also designated as federally threatened or endangered, which are addressed above) have occurrence records or predicted habitat modeled within three miles of the Project area (AGFD, 2024a) and are discussed and listed below in **Table C-2**, where they are evaluated for potential occurrence based on the results of Project area surveys, familiarity with the vicinity, and freely available information sources, including the AGFD’s Heritage Data Management System (HDMS) (AGFD, 2024b); the online field guide Reptiles and Amphibians of Arizona (Brennan, 2021); the online field guide All About Birds (Cornell Lab of Ornithology, 2024a); Google Earth (2024); and the Arizona Ecological Services website and document library (USFWS 2024e).

Bald and Golden Eagles

Bald Eagle

The southwestern population of bald eagles that reside in Arizona year-round nest primarily along the Salt River and Verde River in central Arizona. Bald eagles typically build their nests within a mile of a body of water, such as a lake, river, or creek, and often place them on cliff edges, rock pinnacles, or cottonwood trees. This species was documented within three miles of the Project area (AGFD, 2024a), likely along the Salt River where bald eagles have been previously known to breed (Southwestern Bald Eagle Management Committee, 2024). Though this species may occur near the Salt River located 1.25 miles north of the Project, the Project area itself includes mostly urbanized development and agricultural land that do not provide suitable nesting habitat for bald eagles. However, this species may opportunistically feed on fish or water birds found in the urban environment at locations such as golf courses, hotels, or community lakes and ponds. Therefore, though bald eagles are unlikely to nest near the Project area, this species may occur in the vicinity for foraging purposes (see **Table C-2**). Significant impacts to bald eagles because of Project activities are not expected, and this species was not documented by KPE during the Project-specific habitat assessment in May 2024.

Golden Eagle

Golden eagles prefer rugged terrain with slopes between 18 and 28 degrees and build large stick nests on cliff ledges and other high places and may return to the same nest for several breeding seasons. The Project area is within the year-round range for golden eagles; however, there have been no documented occurrences for this species within three miles of the Project area (AGFD, 2024a). Additionally, the Project area includes mostly

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urbanized development and agricultural land that does not provide suitable nesting habitat for golden eagles. Due to the absence of suitable habitat, this species is unlikely to occur in the vicinity of the Project. Impacts to golden eagle species as a result of Project activities are not expected, and this species was not documented by KPE during the Project-specific habitat assessment in May 2024.

Table C-2 Other Special-Status Species that May Occur in the Vicinity of the Project				
Species		Protection Status¹		Potential to Occur in Project area (Justification)⁴
Common name	Scientific name	ESA^{2, 3}	Arizona SGCN³	
Amphibians				
Arizona Toad	<i>Anaxyrus microscaphus</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
Lowland Leopard Frog	<i>Lithobates yavapaiensis</i>	SC	1	Unlikely to occur. No suitable habitat present within Project area.
Sonoran Desert Toad	<i>Incilius alvarius</i>	--	2	May occur. Suitable habitat present in western portion of the Project area for this species, which can be found relatively far from water.
Birds				
Abert's Towhee	<i>Melospiza aberti</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
American Bittern	<i>Botaurus lentiginosus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
American Kestrel	<i>Falco sparverius</i>	--	2	May occur. Suitable foraging habitat present in western portion of the Project area.
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SC	1	May occur. Suitable foraging habitat present in western portion of the Project area.
American Pipit	<i>Anthus rubescens</i>	--	2	May occur. Suitable agricultural habitat present in western portion of the Project area.
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC, BGA	1	May occur. Potentially suitable foraging habitat present in the Project area.
Bendire's Thrasher	<i>Toxostoma bendirei</i>	BCC	2	May occur. Suitable agricultural habitat present in western portion of the Project area.
Black-bellied Whistling Duck	<i>Dendrocygna autumnalis</i>	--	2	Unlikely to occur. The Project area does not contain suitable freshwater habitat with vegetation.
Brewer's Sparrow	<i>Spizella breweri</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Broad-billed Hummingbird	<i>Cynanthus latirostris</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Bullock's Oriole	<i>Icterus bullockii</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Cactus Wren	<i>Campylorhynchus brunneicapillus</i>	--	2	Unlikely to occur. The Project area does not contain suitable habitat nor nesting substrates for this species.
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.

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Species		Protection Status¹		
Common name	Scientific name	ESA^{2, 3}	Arizona SGCN³	Potential to Occur in Project area (Justification)⁴
Costa's Hummingbird	<i>Calypte costae</i>	BCC	2	May occur. Suitable landscape/ornamental vegetation present.
Ferruginous Hawk	<i>Buteo regalis</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
Gila Woodpecker	<i>Melanerpes uropygialis</i>	BCC	2	Unlikely to occur. No suitable habitat present within Project area.
Gilded Flicker	<i>Colaptes chrysoides</i>	BCC	2	Unlikely to occur. No suitable habitat nor nesting substrates present.
Golden Eagle	<i>Aquila chrysaetos</i>	BGA	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Gray Flycatcher	<i>Empidonax wrightii</i>	--	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Harris's Hawk	<i>Parabuteo unicinctus</i>	--	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Hermit thrush	<i>Catharus guttatus</i>	--	2	Unlikely to occur. The Project area does not contain suitable habitat.
Hooded oriole	<i>Icterus cucullatus</i>	--	2	May occur. Suitable landscape/ornamental vegetation present.
Inca Dove	<i>Columbina inca</i>	--	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Killdeer	<i>Charadrius vociferus</i>		2	May occur. Suitable agricultural habitat present in western portion of the Project area.
LeConte's Thrasher	<i>Toxostoma lecontei</i>	BCC	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	--	2	Unlikely to occur. No suitable habitat present in vicinity of Project area.
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SC	2	May occur. Suitable foraging habitat present in western portion of the Project area.
Northern harrier	<i>Circus hudsonius</i>	--	2	May occur. Suitable foraging habitat present in western portion of the Project area.
Prairie Falcon	<i>Falco mexicanus</i>	--	2	May occur. Suitable foraging habitat present in western portion of the Project area.
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	ST	2	May occur. Suitable foraging habitat present in western portion of the Project area.
Savannah Sparrow	<i>Passerculus sandwichensis</i>	--	2	May occur. Suitable foraging habitat present in western portion of the Project area.

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Table C-2 Other Special-Status Species that May Occur in the Vicinity of the Project				
Species		Protection Status¹		
Common name	Scientific name	ESA^{2, 3}	Arizona SGCN³	Potential to Occur in Project area (Justification)⁴
Sprague's Pipit	<i>Anthus spragueii</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
Swainson's Hawk	<i>Buteo swainsoni</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Swainson's Thrush	<i>Catharus ustulatus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Verdin	<i>Auriparus flaviceps</i>	BCC	2	Unlikely to occur. No suitable habitat present within Project area.
Vesper Sparrow	<i>Poocetes gramineus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	SC, BCC	2	May occur. Suitable agricultural habitat present in western portion of Project area.
Western Screech-Owl	<i>Megascops kennicottii</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Yellow-billed Cuckoo (Western Distinct Population Segment [DPS])	<i>Coccyzus americanus</i>	LT	1	Unlikely to occur. Suitable riparian habitat for this species is not present in the Project area.
Reptiles				
Regal Horned Lizard	<i>Phrynosoma solare</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Sonoran Desert Tortoise	<i>Gopherus morafkai</i>	CCA	1	Unlikely to occur. No suitable habitat present within Project area.
Variable Sandsnake	<i>Chilomeniscus stramineus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Mammals				
Arizona Pocket Mouse	<i>Perognathus amplus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	--	2	May occur. Suitable building roosting habitat within the Project area.
California Leaf-nosed Bat	<i>Macrotus californicus</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
Cave Myotis	<i>Myotis velifer</i>	SC	2	May occur. Suitable bridge roosting habitat within the Project area.
Gray-collared Chipmunk	<i>Neotamias cinereicollis</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Greater Western Bonneted Bat	<i>Eumops perotis californicus</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
Hoary Bat	<i>Lasiurus cinereus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Pocketed Free-tailed Bat	<i>Nyctinomops femorosaccus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Southwestern Myotis	<i>Myotis auricolus</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Western Red Bat	<i>Lasiurus blossevillii</i>	--	2	Unlikely to occur. No suitable habitat present within Project area.
Western Yellow Bat	<i>Lasiurus xanthinus</i>	--	2	May occur. The species could utilize the Project area for foraging.

Table C-2 Other Special-Status Species that May Occur in the Vicinity of the Project				
Species		Protection Status¹		
Common name	Scientific name	ESA^{2, 3}	Arizona SGCN³	Potential to Occur in Project area (Justification)⁴
Yuma Myotis	<i>Myotis yumanensis</i>	SC	2	Unlikely to occur. No suitable habitat present within Project area.
<small>¹LT=Listed Threatened, SC=Species of Concern, CCA= Candidate Conservation Agreement, BCC=Bird of Conservation Concern, BGA=Bald and Golden Eagle Protection Act protected, 1 = Tier 1 and deemed vulnerable in Arizona in at least one of seven assessment criterion AND matches one of the following criterion; federally listed as endangered or threatened under the ESA, recently removed from ESA and currently required post-delisting monitoring, specifically covered under a signed conservation agreement such as CCA or a CCAA or a Conservation Strategy and Assessment or Strategic Conservation Plan, or is a closed season species (no take permitted), 2 = Tier 2 and deemed vulnerable in Arizona in at least one of seven assessment criterion but matches none of the additional criterion for Tier 1. <i>Some special-status species listed in this table do not have status listed for the federal ESA or Arizona SGCN but have a special status with another agency, such as USFS, and therefore are included in this list.</i> ² USFWS, 2024d ³ AGFD, 2024a, b,</small>				

Birds of Conservation Concern (BCC)

The Project is located in BCR 33, the Sonoran Desert BCR, for which 27 BCC species are listed (USFWS, 2021). Seven of the 27 BCC species listed for the Sonoran Desert BCR were noted as having predicted range models that may intersect with the Project area (AGFD 2024a). Of these, it was determined that only three BCC species may actually occur in proximity to the Project following the Project’s in-field habitat assessment: Bendire’s thrasher, Costa’s hummingbird, and western burrowing owl which are described below.

Bendire’s Thrasher

Bendire’s thrasher can be found in open desert scrub habitats including arid grasslands. Because Bendire’s thrashers have the potential to utilize agricultural habitats for nesting and foraging, this species may occur in the western portion of the Project area. However, no nests nor individuals of this species were observed during the field habitat assessment.

Costa’s Hummingbird

Costa’s hummingbird occurs in desert scrub in the Sonoran and Mojave deserts and chaparral and sage scrub areas in coastal California. During the nonbreeding season, they use similar dry habitats for foraging as well as parks, gardens, and higher elevation mountains. The Project area is within the breeding range for Costa’s hummingbird, and this species has been documented within three miles of the Project area. Due to the presence of residential landscaping and gardens providing nectar sources, this species may occur toward the eastern portion of the Project area for nesting or foraging. However, no nests nor individuals of this species were observed during the field habitat assessment.

Western Burrowing Owl

The western burrowing owl prefers arid habitats with short grass or bare soil, such as grasslands, deserts, and steppe environments. This species may occur within burrows created by prairie dogs, ground squirrels, badgers, or tortoises, as well as the edges of ditches along roads in agricultural areas. This species is considered a USFWS Species of

Concern and has a status as AGFD SGCN 2. It also receives federal protection by the USFWS under the MBTA and by Arizona state law (Arizona Revised Statutes [ARS] Title 17). The Project area is within the year-round range for western burrowing owl, and this species has been documented within three miles of the Project area. Due to the presence of suitable habitat, this species may occur toward the western portion of the Project area for nesting or foraging. In addition, discussions with stakeholders and members of the public have described western burrowing owl being present along the Laveen Area Conveyance Canal berms. However, no signs of habitation and no burrowing owl individuals were observed during the field habitat assessment.

Species of Greatest Conservation Need

The AGFD Online Environmental Review Tool identified five species of greatest conservation need with Tier 1 status (three birds, one amphibian, and one reptile) predicted to occur within three miles of the Project (AGFD, 2024a). Of these five species, two may occur (two bird species) in proximity to the Project area, based on the results of the Project field assessment, familiarity with the vicinity, and freely available information sources (**Table C-2**): the American peregrine falcon and the bald eagle. Both species have documented occurrences within three miles of the Project per the AGFD Online Environmental Review Tool (AGFD, 2024a). A description for the American peregrine falcon is provided below, and a description for the bald eagle is provided above under “Other Special-Status Species”.

American Peregrine Falcon

The American peregrine falcon occupies a wide variety of open habitats from tundra to desert mountains. Nesting and wintering habitats are varied, including wetlands, woodlands, forests, cities, and agricultural habitats. The Project area is within the year-round distribution range for this species, and there have been documented occurrences within three miles of the Project area (AGFD, 2024a). Due to the presence of agricultural habitat, the American peregrine falcon may occur towards the western portion of the Project area for foraging purposes. However, no nests nor individuals of this species were documented during the field habitat assessment.

The AGFD Online Environmental Review Tool identified 52 species of greatest conservation need with Tier 2 status (two amphibians, 36 birds, two reptiles, and 12 mammals) predicted to occur within three miles of the Project. Of these, 16 (one amphibian, 12 birds, and three mammals) may occur in proximity to the Project area based on the results of the field assessment: Sonoran desert toad, American kestrel, American pipit, Bendire’s thrasher, Costa’s hummingbird, hooded oriole, killdeer, loggerhead shrike, northern harrier, prairie falcon, red-winged blackbird, savannah sparrow, western burrowing owl, Brazilian free-tailed bat, cave myotis, and western yellow bat. No individuals of these species were observed during the field assessment. Potential impacts to special-status species are addressed within *Other Special-Status Species* within the “Summary of Potential Effects” section.

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 would be destroyed. The proposed 230 kilovolt (kV) transmission lines are not located in areas with native vegetation.

Of the 30 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, 2024b). Additionally, the elevation of the Project is outside of the range for these plants, and there is no suitable habitat.

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 and agricultural areas on the western portion of the Project. Non-native species observed in proximity to these areas included stinknet (*Oncosiphon pilulifer*), Russian thistle (*Salsola tragus*), sandbur (*Cenchrus* sp.), Saharan mustard (*Brassica tournefortii*), tamarisk (*Tamarix* sp.), prickly lettuce (*Lactuca serriola*) and acacia (*Acacia* sp.). Saharan mustard, stinknet, sandbur, and tamarisk are listed as Arizona noxious weeds.

Summary of Potential Effects

Potential impacts to special-status species related to the construction of the Project 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 power 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 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 lines would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (Avian Power Line Interaction Committee [APLIC] 2012). With the incorporation of SRP's proposed measures (**Table C-3**), construction activities along the proposed 230 kV transmission lines are anticipated to have minimal impacts on the western burrowing owl and other special-status species that may be encountered.

Areas of Biological Wealth

The Project does not overlap with any areas of biological wealth. Residential, commercial, and agricultural development, along with Loop 202 and other local roads and infrastructure, has converted and degraded areas of natural vegetation (wildlife habitat). The Project would permanently impact a very small area of previously degraded riparian habitat, and the majority of the Project-related impacts would be temporary and short-term in nature. No wildlife corridors, wetlands, riparian areas, nor IBAs are located within or adjacent to the Project.

Federally Listed Threatened and Endangered Species

No suitable habitat occurs within the Project area for the following species that are listed under the ESA or are candidates for listing—Sonoran pronghorn, cactus ferruginous pygmy-owl, California least tern, yellow-billed cuckoo, Yuma Ridgway's rail, or Gila topminnow—and these species would be unlikely to occur and, therefore, would not be impacted.

Although there is low likelihood for monarch individuals to pass through due to the disturbed nature of the site and the surrounding areas, the species may occur. Monarch butterfly habitat comprises milkweed, which is used exclusively for reproduction, and floral nectar resources for adult food sources. No milkweed was observed during the Project surveys; however, monarch butterflies may use flowering plants in the Project for foraging. As such, impacts to this species would be minor. Individual monarch butterflies may experience injury, change of behavior, and loss of foraging habitat as a result of the Project. Individual monarch butterflies would be expected to largely shift activity to nearby suitable habitat.

Other Special-Status Species

The following sections address the potential effects from development of the Project components to special-status species that may occur within the Project area.

Special-Status Mammal Species

Suitable roosting habitat for the Brazilian free-tailed bat and cave myotis may occur in the form of bridges and abandoned buildings in proximity to the Project area. Indirect impacts to bats using bridges or abandoned buildings as day roosts could include noise impacts, leading to behavior changes or loss of fitness for individuals. Potential noise-related impacts would be short-term and negligible as Project-related noise would not exceed the typical noise levels of Loop 202. Impacts to Brazilian free-tailed bat and cave myotis are not expected due to the highly disturbed nature of the existing Project area. Work areas would occur outside of the right-of-way (ROW) for the Arizona Department of Transportation, and bridge work is not anticipated as a part of Project activities. Therefore, no impacts would be expected to any Brazilian free-tailed bats or cave myotis that may occur in the Project area.

Project activities would remove minor agricultural irrigation, which may decrease the suitability of the area for foraging by insectivorous bat species. Western yellow bats that may occur via foraging have the potential to be negatively impacted by decreased prey availability as a result of agricultural vegetation removal. However, because the Project area is largely disturbed by agriculture, infrastructure, and development, any loss of vegetation from construction activities would not contribute meaningfully to habitat fragmentation for special-status mammals or decrease connectivity between habitat patches. Due to the proximity to urbanization and more suitable prey availability occurring within habitat further outside of the Project area, impacts to the species as a result of agricultural irrigation removal are expected to be minor. As a result, no impacts would be expected to any western yellow bats that may occur in the Project area.

Bat species can collide with human-made structures during long-distance migration. Migrating bats often fly high above ground level and do not actively echolocate. However, during normal foraging activity, bats actively use echolocation and are typically able to detect and avoid features such as overhead transmission lines (Arnett et al., 2015). No information suggests that transmission lines in a setting such as the Project area would pose a risk to bats. Construction is not anticipated to occur at night; however, if it does in certain cases, those activities at night would increase light pollution and human presence in the Project area and would impact bat activity patterns. The increase of nighttime lighting in the Project area has the potential to attract insects, which could have minor beneficial impacts to some bat species as their food source increased. However, some bat species would likely shift their foraging activities away from construction and additional light. The negative impacts would likely be minor because foraging habitat for insectivorous species occurs outside of the Project area.

Special-Status Bird Species

Bald eagles may forage in proximity to the Project area near agricultural fields and areas containing water features and may opportunistically feed on carrion via roads and highways, though the likelihood of this type of occurrence is low. Bald eagles foraging within the Project ROW would likely flee at the onset of construction. Additionally, a 15-mph speed limit would be implemented along the Project ROW to mitigate any potential impacts to this species. If a bald eagle is discovered in the area, on-site personnel would contact SRP's Avian Protection Program for steps to take to ensure the species is protected. As a result, no significant impacts are expected to potentially foraging bald eagles as a result of construction activities.

American peregrine falcon may utilize agricultural habitat within the Project area for foraging, though the likelihood of this type of occurrence is low. Peregrine falcons foraging within the Project ROW would likely flee at the onset of construction. Additionally, a 15-mph speed limit would be implemented along the Project ROW to mitigate any potential impacts to this species. If an individual of this species is discovered in the area, on-site personnel would contact SRP's Avian Protection Program for steps to take to ensure the species is protected. As a result, no significant impacts are expected to potentially foraging American peregrine falcons as a result of construction activities.

Suitable habitat for western burrowing owl exists within the western portion of the Project area, and this species has been documented within three miles of the anticipated work areas. Potential impacts to western burrowing owl related to the construction of the Project could include displacement of individuals from the construction area, possible abandonment of burrows due to construction activities, injury or death from vehicle strikes during construction, temporary impacts on foraging behaviors in adjacent habitat, and noise-related disturbance. In order to mitigate potential impacts to western burrowing owl, a pre-construction protocol survey would be conducted *30 days prior to construction* for active burrows occupied by western burrowing owl and other bird nests protected under the MBTA. Should an active burrowing owl burrow be detected, SRP's Avian Protection Program would coordinate with AGFD and USFWS as appropriate. 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, USFWS, and wildlife rehabilitators should 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. With implementation of mitigation, construction activities along the proposed 230 kV transmission lines are anticipated to have minimal impacts on the western burrowing owl.

Potential impacts to special-status bird species could include changes in behavior due to Project-related noise, vibration, and the presence of workers and equipment; loss of breeding and foraging habitat; and impacts to nesting species. Potential impacts to nesting birds and their eggs covered under the MBTA would be avoided and/or minimized either by limiting ground-clearing/vegetation removal activities to outside the breeding season (generally March–September with raptors breeding generally January–June) or through surveys to identify active nests and placement of buffers around those active nests until the young fledge or the nest fails. As a result, no significant impacts are expected to special-status bird species as a result of construction activities.

Transmission lines can pose a collision risk to birds (APLIC, 2012). However, many factors influence whether birds are likely to collide with a specific transmission line. Collision risk is relatively low when multiple transmission lines are co-located or placed near other infrastructure (APLIC, 2012). The Project would be constructed in an area with numerous existing transmission lines and would be unlikely to contribute to an increase in bird mortality within the Project Area. To minimize that risk, the Applicant would construct the proposed transmission line following the guidelines outlined in the current version of the APLIC *Suggested Practices for Avian Protection on Powerlines and Reducing Avian Collisions with Power Lines* manuals. Electrical transmission and distribution lines can also cause bird electrocution, although the risk is highest with lower voltage lines. Electrocution occurs when a bird simultaneously contacts energized and grounded electrical components. High-voltage lines require spacing between those components that cannot be spanned even by very large birds so that electrocution risk is precluded almost entirely (APLIC, 2006).

Special-Status Reptile Species

The Project would have no impact on special-status reptile species because no habitat for special-status reptile species is present in the Project area.

Special-Status Amphibian Species

Potential impacts to Sonoran Desert toad include death, injury, or impacts arising from behavior changes and would be similar to those described for terrestrial mammals. Potential impacts from the loss, degradation, and fragmentation of amphibian habitat from Project activities would be the same as those described for terrestrial mammals.

Special-Status Fish Species

The Project would have no impact on special-status fish species because no habitat for special-status fish species is present in the Project area. Project activities would not impact perennial water outside of the Project area, including the Salt River – Saguaro Lake to Gila River Riparian Movement Area. The only mapped historically riparian area in the Project vicinity is a small corridor along the southern terminus of the proposed Project area that is now occupied by agricultural operations and development. Project activities would not impact this area.

Protected Native Plants

Of the 30 special-status plant species having some potential to occur within Maricopa County (AGFD, 2024b), none have been recorded in or within three miles of the Project (AGFD, 2024a). Additionally, the elevation of the Project is outside of the range for these plants, and there is no suitable habitat. Therefore, the Project would have no direct or indirect impacts on threatened, endangered, and state-protected plants.

Noxious Weeds

Measures would be taken to avoid introducing or spreading noxious weeds in the Project area; and therefore the Project would be unlikely to contribute to an increase of noxious weeds, in extent or abundance, in the vicinity of the Project (**Table C-3**).

Mitigation Measures

The proposed 230 kV transmission lines are in the vicinity of a major freeway, Loop 202, and are entirely within a developed area containing no natural habitat. The disturbances associated with construction of the proposed 230 kV transmission lines would occur in previously disturbed areas. The proposed Project is not likely to significantly affect any rare, endangered, or other special-status species. Implementation of mitigation measures (**Table C-3**) would ensure avoidance and minimization of potential risk to wildlife, and the risk that electrical infrastructure poses to birds would be addressed by following industry suggested practices as design features for the Project.

Table C-3 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 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. • Construction would review the AGFD's <i>Wildlife Compatible Fencing Guidelines</i> during fence construction to reduce potential impacts to wildlife by preventing potential wildlife entanglement and impalement and ensuring that wildlife movement is not restricted.
<i>Design would minimize electrocution and collision potential for birds.</i>
<ul style="list-style-type: none"> • 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 <i>Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006</i> and <i>Reduced Avian Collisions with Power Lines: The State of the Art in 2012</i> (APLIC, 2006; 2012).
<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 for active burrows occupied by western burrowing owl and other bird nests protected under the MBTA. If an active burrowing owl burrow is detected, SRP's Avian Protection Program would coordinate with the AGFD and USFWS as appropriate. • 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. • Should wildlife be encountered within the Project area, the individual(s) would be relocated no more than 0.25 mile outside of the Project area into similar habitat.

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**EXHIBIT C-1
USFWS IPAC RESULTS**

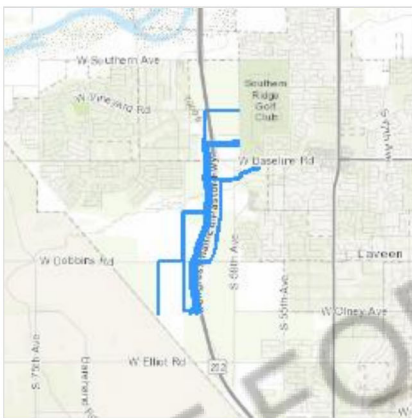
IPaC resource list

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

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
------	--------

Cactus Ferruginous Pygmy-owl *Glaucidium brasilianum cactorum* Threatened

Wherever found

There is **final** critical habitat for this species.

<https://ecos.fws.gov/ecp/species/1225>

California Least Tern *Sternula antillarum browni* Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8104>

Yellow-billed Cuckoo *Coccyzus americanus* Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/3911>

Yuma Ridgway's Rail *Rallus obsoletus yumanensis* Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3505>

Fishes

NAME

STATUS

Gila Topminnow (incl. Yaqui) *Poeciliopsis occidentalis* Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1116>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus* Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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
Golden Eagle <i>Aquila chrysaetos</i> 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

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "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

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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 habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

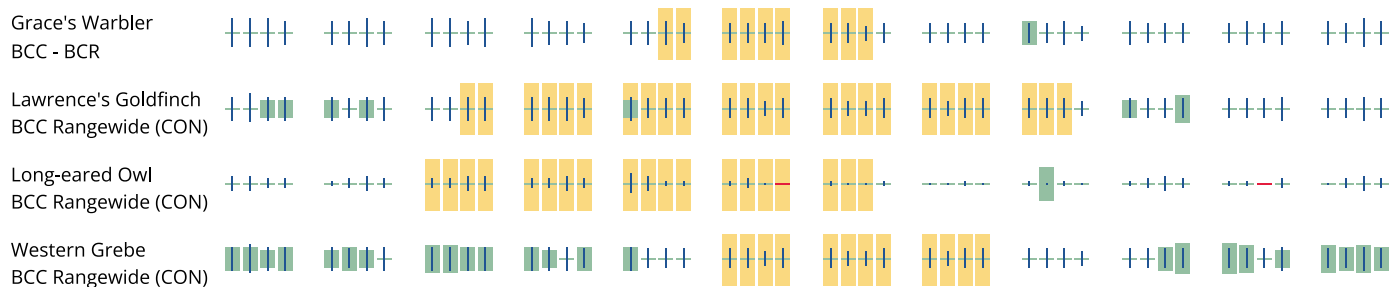
NAME	BREEDING SEASON
American Avocet <i>Recurvirostra americana</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 21 to Aug 10
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) 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 <i>Toxostoma bendirei</i> 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
Clark's Grebe <i>Aechmophorus clarkii</i> 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 <i>Calypte costae</i> 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 <i>Melanerpes uropygialis</i> 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 <i>Aquila chrysaetos</i> 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 <i>Setophaga graciae</i> 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 <i>Spinus lawrencei</i> 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
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)



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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

This location overlaps the following wetlands:

RIVERINE

[R5UBFx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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

Data limitations

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

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

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

Data exclusions

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

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:

South Mountain Transmission Project

Project Description:

South Mountain Transmission Project includes two sets of approximately 4-5 miles of new overhead double-circuit 230 kV transmission lines, connecting the New Laveen Substation to the existing Cheatham Substation.

Project Type:

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

Contact Person:

Gabriella Glener

Organization:

KP Environmental

On Behalf Of:

CONSULTING

Project ID:

HGIS-22423

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. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), 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.

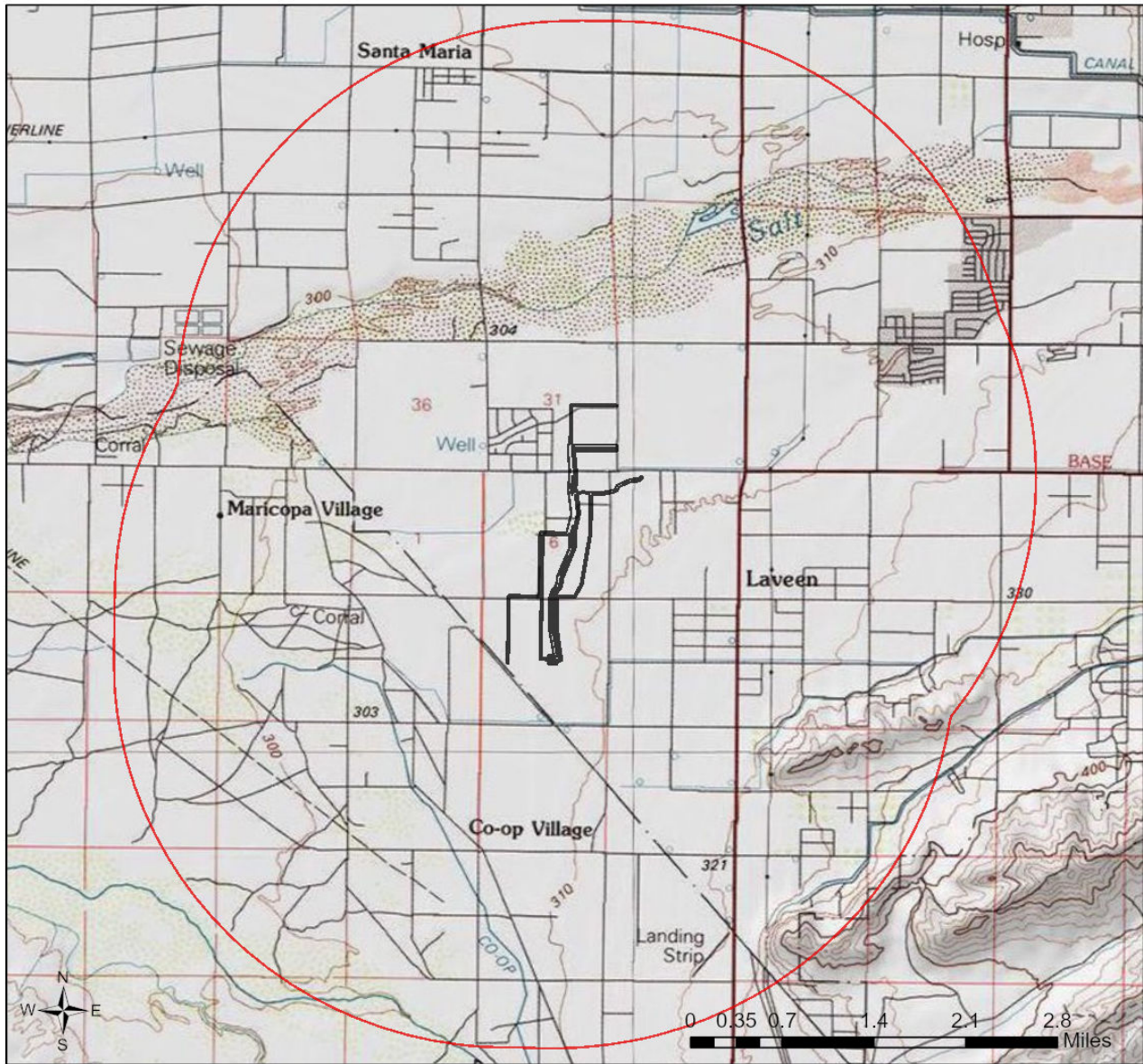
Locations Accuracy Disclaimer:

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.

South Mountain Transmission Project USA Topo Basemap With Locator Map



- Buffered Project Boundary
- Project Boundary

Project Size (acres): 106.56

Lat/Long (DD): 33.3747 / -112.1861

County(s): Maricopa

AGFD Region(s): Mesa

Township/Range(s): T1N, R2E; T1S, R2E

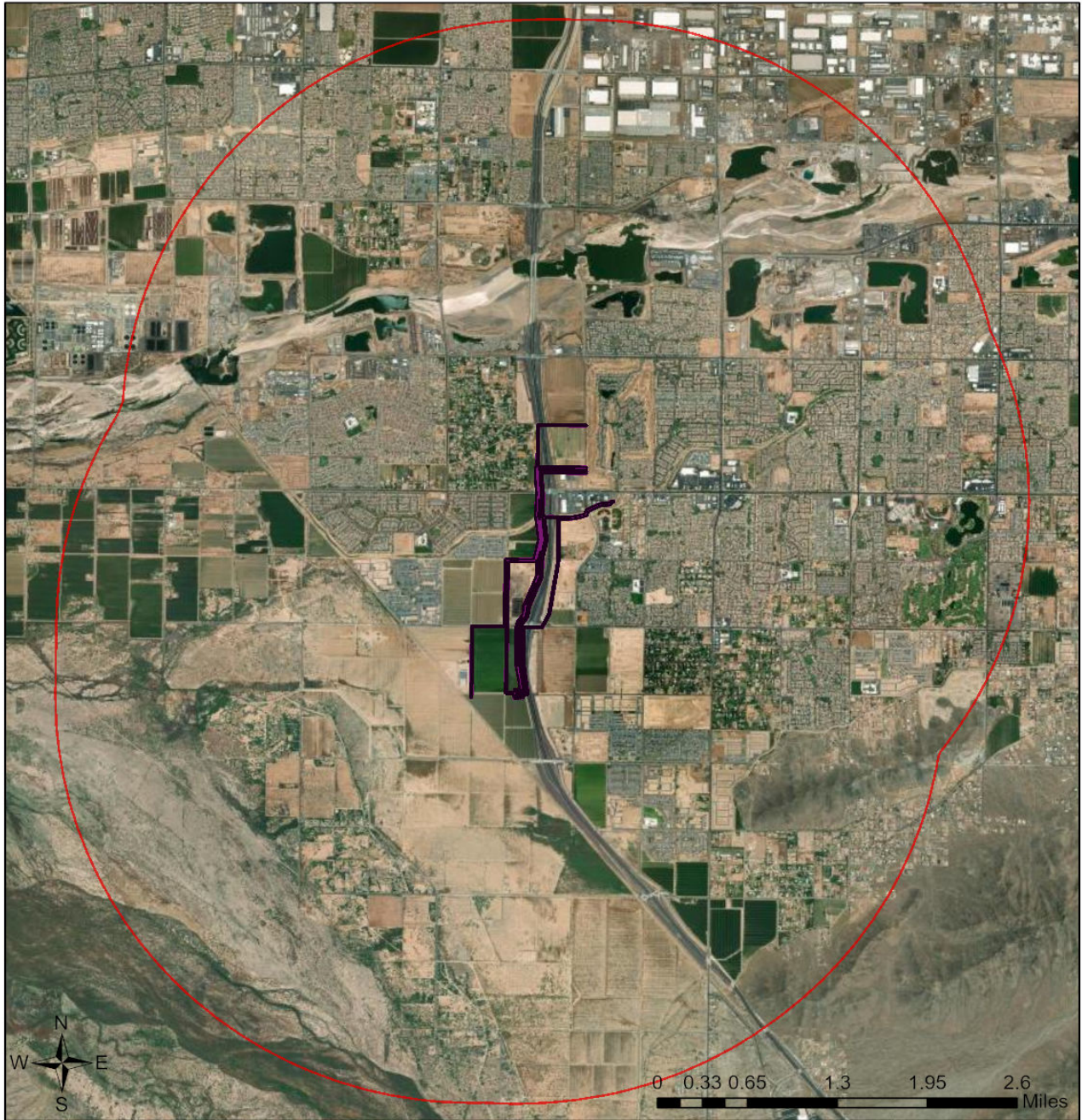
USGS Quad(s): FOWLER; LAVEEN

County of Yavapai, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Copyright:© 2013 National Geographic Society, i-cubed
Esri, USGS



South Mountain Transmission Project

Web Map As Submitted By User

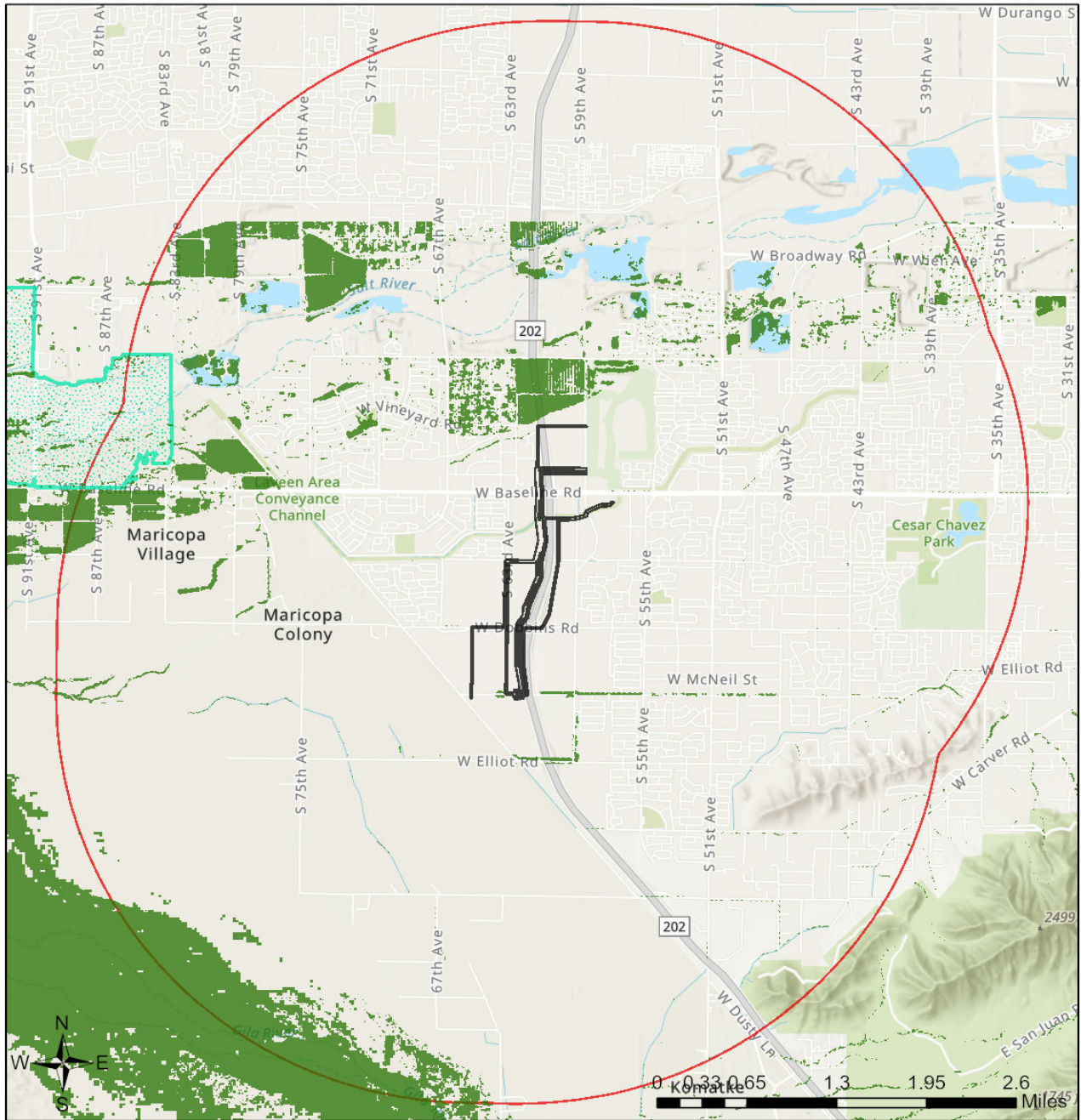


-  Project Boundary
-  Buffered Project Boundary
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USGS Quad(s): FOWLER; LAVEEN

Earthstar Geographics

South Mountain Transmission Project Important Areas

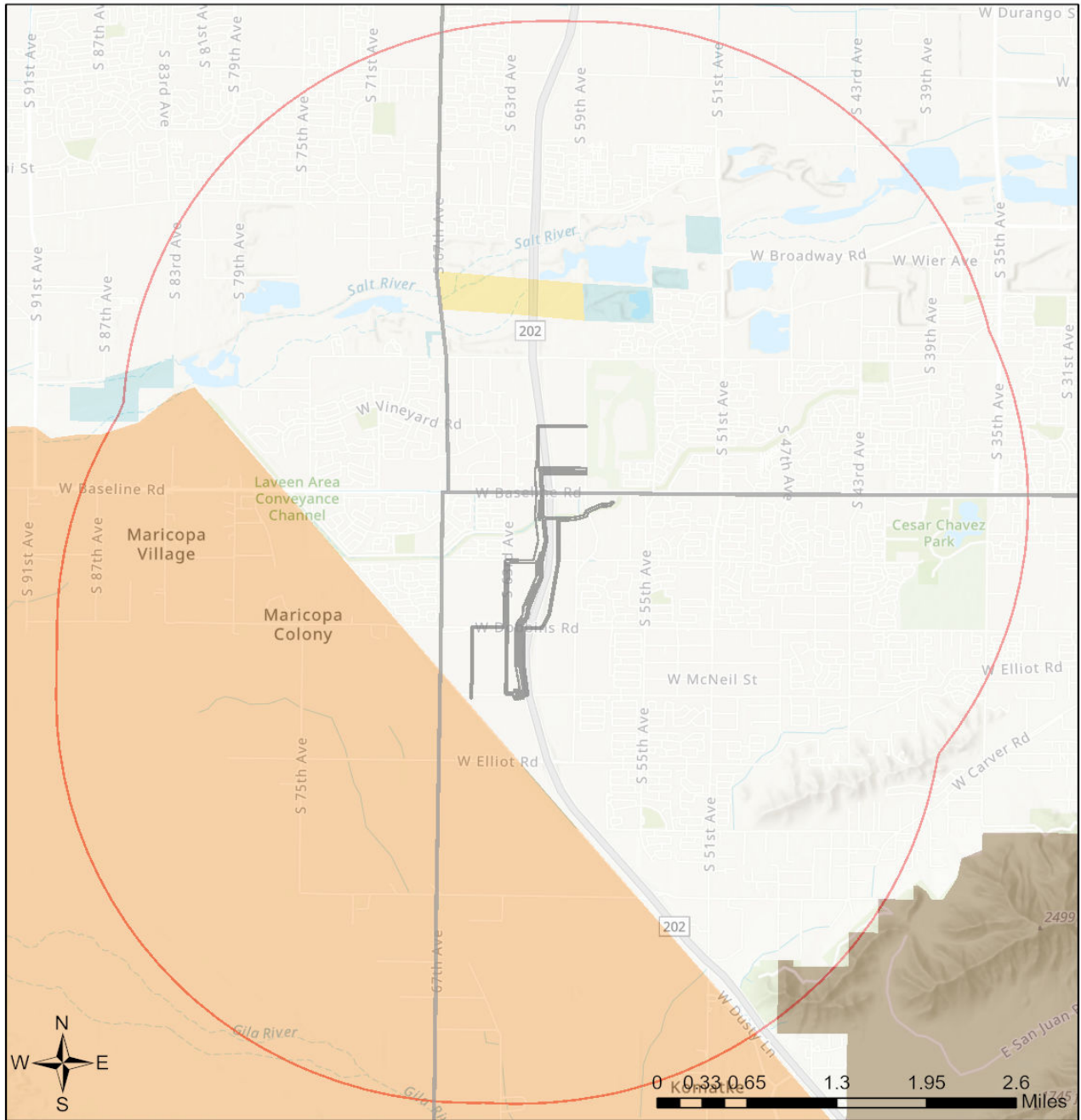


- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Important Connectivity Zones
- Wildlife Connectivity

Project Size (acres): 106.56
 Lat/Long (DD): 33.3747 / -112.1861
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T1N, R2E; T1S, R2E
 USGS Quad(s): FOWLER; LAVEEN

Esri, NASA, NGA, USGS, FEMA
 City of Phoenix, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,
 Bureau of Land Management, EPA, NPS, USDA, USFWS

South Mountain Transmission Project Township/Ranges and Land Ownership



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

Project Size (acres): 106.56
 Lat/Long (DD): 33.3747 / -112.1861
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T1N, R2E; T1S, R2E
 USGS Quad(s): FOWLER; LAVEEN

Esri, NASA, NGA, USGS, FEMA
 City of Phoenix, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,
 Bureau of Land Management, EPA, NPS, USDA, USFWS

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agelaius phoeniceus	Red-winged Blackbird					2
Anthus rubescens	American Pipit					2
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		2
Auriparus flaviceps	Verdin					2
Calypte costae	Costa's Hummingbird					2
Campylorhynchus brunneicapillus	Cactus Wren					2
Catharus guttatus	Hermit Thrush					2
Charadrius vociferus	Killdeer					2
Circus hudsonius	Northern Harrier					2
Colaptes chrysoides	Gilded Flicker				S	2
Dendrocygna autumnalis	Black-bellied Whistling-Duck					2
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1
Falco sparverius	American Kestrel					2
Haliaeetus leucocephalus	Bald Eagle	SC, BGA	S	S		1
Icterus cucullatus	Hooded Oriole					2
Incilius alvarius	Sonoran Desert Toad					2
Lanius ludovicianus	Loggerhead Shrike	SC				2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolni	Lincoln's Sparrow					2
Melospiza aberti	Abert's Towhee		S			2

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/>.

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-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/>.

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
Anaxyrus microscaphus	Arizona Toad	SC		S		2
Anthus spragueii	Sprague's Pipit	SC				2
Aquila chrysaetos	Golden Eagle			S		2
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		2
Auriparus flaviceps	Verdin					2
Botaurus lentiginosus	American Bittern					2

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>Buteo regalis</i>	Ferruginous Hawk	SC		S		2
<i>Buteo swainsoni</i>	Swainson's Hawk					2
<i>Calcarius ornatus</i>	Chestnut-collared Longspur					2
<i>Calypte costae</i>	Costa's Hummingbird					2
<i>Campylorhynchus brunneicapillus</i>	Cactus Wren					2
<i>Catharus ustulatus</i>	Swainson's Thrush					2
<i>Chilomeniscus stramineus</i>	Variable Sandsnake					2
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)					
<i>Colaptes chrysoides</i>	Gilded Flicker			S		2
<i>Columbina inca</i>	Inca Dove					2
<i>Cyananthus latirostris</i>	Broad-billed Hummingbird		S			2
<i>Empidonax wrightii</i>	Gray Flycatcher					2
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat					
<i>Falco mexicanus</i>	Prairie Falcon					2
<i>Falco peregrinus anatum</i>	American Peregrine Falcon					
<i>Falco sparverius</i>	American Kestrel					2
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S	S		1
<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC	S	S		1
<i>Icterus bullockii</i>	Bullock's Oriole					2
<i>Incilius alvarius</i>	Sonoran Desert Toad					2
<i>Lanius ludovicianus</i>	Loggerhead Shrike	SC				2
<i>Lasiurus blossevillii</i>	Western Red Bat		S			2
<i>Lasiurus cinereus</i>	Hoary Bat					2
<i>Lasiurus xanthinus</i>	Western Yellow Bat		S			2
<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		1
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		2
<i>Megascops kennicottii</i>	Western Screech-owl					
<i>Melanerpes uropygialis</i>	Gila Woodpecker					2
<i>Melospiza lincolni</i>	Lincoln's Sparrow					2
<i>Melospiza aberti</i>	Abert's Towhee		S			2
<i>Myotis auriculus</i>	Southwestern Myotis					2
<i>Myotis velifer</i>	Cave Myotis	SC		S		2
<i>Myotis yumanensis</i>	Yuma Myotis	SC				2
<i>Neotamias cinereicollis</i>	Gray-collared Chipmunk					
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					2
<i>Parabuteo unicinctus</i>	Harris's Hawk					2
<i>Passerculus sandwichensis</i>	Savannah Sparrow					2
<i>Perognathus amplus</i>	Arizona Pocket Mouse					2
<i>Phrynosoma solare</i>	Regal Horned Lizard					2

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
Poocetes gramineus	Vesper Sparrow					2
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					
Toxostoma bendirei	Bendire's Thrasher					2
Toxostoma lecontei	LeConte's Thrasher				S	2

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 Production/Storage/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 herpetofauna (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 (<https://azstateparks.com/>).

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.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at PEP@azgfd.gov.

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 <https://www.fws.gov/office/arizona-ecological-services> 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

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-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/>.

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-conservation/conservation-and-endangered-species-programs/burrowing-owl-management/>.

EXHIBIT C-3
AGFD CORRESPONDENCE



August 6, 2024

Mr. Rick Hernandez
Program Manager
1500 N Mill Avenue
Tempe, AZ 85288

Electronically submitted to: Rick.Hernandez@srpnet.com

RE: South Mountain Transmission Project

Dear Mr. Hernandez:

The Arizona Game and Fish Department (Department) appreciates the opportunity to review the South Mountain Transmission Project (Project). The Department understands that the Project would involve the construction of a new 500/230/69kV Substation, with two new 230kV and 500kV transmission lines that will connect to the existing SRP substation. The Project would be constructed on existing agricultural lands and vacant residential, and would involve the use of heavy equipment to grade and level the site, the construction of above ground power lines, construction of a perimeter fence and large scale soil disturbance.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission, has jurisdictional authority and public trust responsibilities to conserve and protect the state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's Section 10(a)(1)(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department recognizes the importance of planning efforts to develop energy storage facilities that contribute to regional and state economic growth needs for readily available energy. The Department recognizes that appropriate coordination, proper planning, and voluntary implementation of best management practices allow projects to be developed that avoid, minimize, or offset potential impacts to wildlife and recreational access during development, maintenance, and operation of the facilities. For your consideration, the Department provides the following general and preliminary comments based on the agency's statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation. Additionally, please refer to the attached Online Environmental Review Tool report (HGIS-22423) for recommendations.

azgfd.gov | 480.981.9400

MESA OFFICE: 7200 E. UNIVERSITY DRIVE, MESA AZ 85207

GOVERNOR: KATIE HOBBS **COMMISSIONERS:** CHAIRMAN CLAY HERNANDEZ, TUCSON | MARSHA PETRIE SUE, SCOTTSDALE | JEFF BUCHANAN, PATAGONIA
JAMES E. GOUGHNOUR, PAYSON | TODD G. GEILER, PRESCOTT **DIRECTOR:** TY E. GRAY **DEPUTY DIRECTOR:** TOM P. FINLEY

- The western burrowing owl, a special status species that is regulated under the Migratory Bird Treaty Act (MBTA), has been documented as recently as 2020 within the project area. The Department recommends conducting occupancy surveys for this species following guidelines found in [Burrowing Owl Project Clearance Guidance for Landowners](#)¹. Please note that the survey should be conducted by a surveyor who is certified by the Department or has similar training and qualifications. If an active burrowing owl burrow is detected, please contact the Department and the [U.S. Fish and Wildlife Service](#)² (USFWS) for direction, in accordance with the guidelines.
- The Department's [Wildlife Compatible Fencing Guidelines](#)³ provide information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Department personnel are available as resources to help determine appropriate fencing design and layout that will achieve its objective while reducing impact on wildlife.
- The Department recommends following standards established by the Avian Power Line Interaction Committee (APLIC) for new power lines, which can be found in [Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006](#)⁴ and [Reduced Avian Collisions with Power Lines: The State of the Art in 2012](#)⁵. Birds of prey, such as raptors, owls, vultures, and eagles, are vulnerable to powerline strikes and electrocution during construction and operation of transmission lines. Mr. Jacobson, the Department's Raptor Coordinator, can provide further information on specific design features and best management practices; he can be contacted at raptors@azgfd.gov or 623-236-7575.
- Power poles can serve as perches for many birds of prey and there are design features for structures that can reduce impacts to these important species. Another possible alternative to reduce mortality is using bird flight diverters to decrease avian mortalities. Again, Mr. Jacobson has expertise in all of the best management practices and would be available to share his knowledge in the pre-design phase of this project.
- Multiple Arizona Species of Greatest Conservation Need have the potential to occur within the project area. If wildlife are encountered while working in the project area, the Department recommends moving them out of harm's way, no more than 0.25 mile outside the project area into similar habitat.

¹ https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/nongame/eagles/BurrowingOwlClearanceProtocol_2009.pdf

² <https://www.fws.gov/office/arizona-ecological-services/contact-us>

³ https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/110125_AGFD_fencing_guidelines.pdf

⁴ [https://www.aplic.org/uploads/files/2643/SuggestedPractices2006\(LR-2\).pdf](https://www.aplic.org/uploads/files/2643/SuggestedPractices2006(LR-2).pdf)

⁵ https://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf

Thank you for the opportunity to provide input on the South Mountain Transmission Project. For further coordination, please contact Bobby Lamoureux at rlamoureux@azgfd.gov or 480-262-9427.

Sincerely,

Joshua W. Hurst

Joshua Hurst
Regional Supervisor

cc: Ginger Ritter - Project Evaluation Program Supervisor
Kelly Wolff – Habitat, Evaluation, and Lands Program Manager, Region 6

Attachment: ERT Species Report HGIS-22423

AZGFD #M24-07113348