

Apache Leap Special Management Area

Biological Evaluation

Prepared by:

Stacy Campbell Wildlife Biologist

and Meggan Dugan Biologist/Environmental Planner

SWCA Environmental Consultants

for:

Globe Ranger District Tonto National Forest

September 2017

Project Actions

The Forest Service, an agency within the United States Department of Agriculture, is preparing a management plan for the proposed Apache Leap Special Management Area (Apache Leap SMA). The purpose of the Apache Leap SMA management plan is to preserve the natural character of Apache Leap, including limitations on the types of ground-disturbing or vegetation-modifying activities that would be permitted, and to allow for traditional use of the area by Native American people, and to protect and conserve cultural and archaeological resources of the area. The Apache Leap SMA contains approximately 839 acres currently under federal and private ownership and lies within the administrative boundaries of the Globe Ranger District of the Tonto National Forest (legal description: Township 1 South, Range 12 East, in a portion of Section 26; Township 1 South, Range 13 East, in a portion of Section 31; and Township 2 South, Range 12 East, in portions of Sections 1, 2, 11, and 12) (Figure 1). Upon completion of the Southeast Arizona Land Exchange, directed as part of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (NDAA) (Public Law [PL] 113–291) (113th Congress, 2014), the private lands would become federal lands within the Apache Leap SMA.

One non-significant Tonto National Forest Land and Resource Management Plan (forest plan) (Forest Service, 1985) amendment is proposed under the action alternative. The amendment would designate approximately 839 acres as the Apache Leap SMA within the General Management Area as a special management area and implement corresponding management actions.

The proposed action is a management plan and forest plan amendment and does not direct any surfacedisturbing activities. Exclusion of grazing from the portions of the Superior and Devil's Canyon Allotment pastures within the Apache Leap SMA would provide direct beneficial effects on vegetation and wildlife. Indirect effects would result from future implementation of the management plan. Because the proposed action would manage the project area to protect the natural character of the area and would include management activities such as decommissioning of approximately 0.35 mile of existing roads, limits on new construction of utility infrastructure, and removal of existing livestock improvements, it is not anticipated to result in adverse indirect effects on species or habitats. Therefore, the approval and implementation of the plan would have an overall beneficial impact to natural resources within the Apache Leap SMA.

Implementation actions and their direct effects, which may consist of ground-disturbing activities and/or changes in management strategy (such as removal of existing range improvements or prohibition of overnight camping), would be analyzed under a separate National Environmental Policy Act (NEPA) process. These future actions would be analyzed separately, and species-specific mitigation measures would be developed, if necessary. The indirect, overall effects on vegetation and wildlife resources of specific changes in management strategy will be beneficial overall for vegetation, wildlife, and habitats owing to the reduction of human disturbance within Apache Leap SMA.

Project Area Vegetation and Habitat Type

The biotic communities and vegetation within the project area include the Arizona Upland subdivision of the Sonoran Desertscrub biotic community in lower elevations (approximately 412 acres), with the Interior Chaparral community along the top of the Apache Leap escarpment (approximately 422 acres) (Brown, 1994). Interior Chaparral species also occur on north-facing slopes in lower elevations west of the Apache Leap escarpment. Elevations within the project range from 3,080 to 4,822 feet above mean sea level (amsl).

Vegetation found in the Arizona Upland subdivision typically consists of shrubs, cacti, and leguminous trees such as foothills paloverde (*Parkinsonia microphylla*), saguaro (*Carnegiea gigantea*), and velvet mesquite (*Prosopis velutina*). Additional species common to this area include golden flower century plant (*Agave chrysantha*), Mormon tea (*Ephedra* sp.), fairyduster (*Calliandra eriophylla*), barrel cactus (*Ferocactus* spp.), catclaw mimosa (*Mimosa aculeaticarpa*), jojoba (*Simmondsia chinensis*), catclaw acacia (*Senegalia greggii*), wolfberry (*Lycium spp.*), brittlebush (*Encelia farinosa*), teddybear cholla (*Cylindropuntia bigelovii*), buckhorn cholla (*C. acanthocarpa*), prickly pear (*Opuntia engelmannii*), Engelmann's hedgehog (*Echinocereus engelmannii*), shrubby buckwheat (*Eriogonum wrightii*), flattop buckwheat (*E. fasciculatum*), Louisiana sagewort (*Artemisia ludoviciana*), desert marigold (*Baileya multiradiata*), Coues' cassia (*Senna covesii*), globemallow (*Sphaeralcea ambigua*), and purple three-awn (*Aristida purpurea*).

The Interior Chaparral vegetation type is characterized by dense stands of woody evergreens and shrubs. A common (diagnostic) species of Interior Chaparral in central Arizona is scrub live oak (*Quercus turbinella*). In the Apache Leap SMA, this community is best represented by scrub live oak, pointleaf manzanita (*Arctostaphylos pungens*), red barberry (*Berberis haematocarpa*), alderleaf mountain mahogany (*Cercocarpus montanus*), deerbrush (*Ceanothus integerrimus*), and sugar sumac (*Rhus trilobata*). Other common species include crucifixion thorn (*Canotia holacantha*), hopbush (*Dodonaea viscosa*), Wright's silktassel (*Garrya wrightii*), and broom snakeweed (*Gutierrezia sarothrae*).

Summary of Results

Site visits were conducted by biologists from the Forest Service and SWCA Environmental Consultants (SWCA). Mark Taylor (Forest Service), Jeff Johnson (SWCA), and Meggan Dugan (SWCA) visited the project area on March 15 and March 16, 2017. Meggan Dugan also visited the project area on April 3, 2017. No federally listed species are present in the project area; however, habitat for federally listed species is present in the project area. Forest sensitive species and habitat are present within the project area. The Arizona Game and Fish Department's (AGFD's) Heritage Database Management System (HDMS) was used to determine previous species observations.

The proposed project would not result in significant habitat alteration, effects outside the project area, cumulative effects on listed species or habitat, or cumulative effects on sensitive species or habitat. In addition, the proposed project would result in no effect on threatened, endangered, or proposed species. It may affect individual sensitive species; however, the proposed project would not affect sensitive species' population viability. Based on the findings and the size and effect of the proposed project, a detailed biological evaluation and further consultation are not required.

Prepared By :	Stacy laybell	Date:	August 25, 2017
	Wildlife Biologist		
Prepared By :	M	Date:	August 25, 2017
	Biologist/Environmental Planner		
Approved By:		Date:	
	District Staff Biologist		

Determinations

Heritage Database Records

The AGFD's HDMS was accessed on June 13, 2017 (Project ID: HGIS-05590), to identify any protected species that are known to occur within a 5-mile radius of the project area (Table 1). These species may include species listed under the Endangered Species Act (ESA), as Forest Sensitive Species, or as AGFD Species of Greatest Conservation Need (SGCN). Only species listed under the ESA or as Forest Sensitive Species identified during the search are discussed in detail below. The search results are provided in Attachment 1.

HDMS Species	Status*	Species Affected	Pop. Viability Affected			
Pima Indian mallow (Abutilon parishii)	FSS	Yes	No			
Gila longfin dace (Agosia chrysogaster chrysogaster)	AGFD SGCN 1B	No	No			
Golden eagle (Aquila chrysaetos)	USFWS BGA; AGFD SGCN 1B	Yes	No			
Bat colony	See belo	W				
Boyce Thompson Arboretum and Arnett-Queen Creeks IBA	See Tonto National Forest Migratory Bird Species of Concern section					
Gila chub (<i>Gila intermedia</i>) Designated Critical Habitat	See below					
Yellow-billed cuckoo (Coccyzus americanus)	USFWS T; FS S; AGFD SGCN 1A	No	No			
Arizona hedgehog cactus (<i>Echinocereus triglochidiatus</i> var. <i>arizonicus</i>)	USFWS E	No	No			
Greater western bonneted bat (<i>Eumops perotis californicus</i>)	AGFD SGCN 1B	Yes	No			
American peregrine falcon (<i>Falco peregrinus anatum</i>)	FS S; AGFD SGCN 1A	Yes	No			
Sonoran desert tortoise (Gopherus morafkai)	USFWS CCA; FS S; AGFD SGCN 1A	Yes	No			
Gila monster (Heloderma suspectum)	AGFD SGCN 1A	Yes	No			
Ocelot (<i>Leopardus pardalis</i>)	USFWS E; AGFD SGCN 1A	No	No			
Lowland leopard frog (Lithobates yavapaiensis)	FS S; AGFD SGCN 1A	No	No			
Yuma myotis (<i>Myotis yumanensis</i>)	AGFD SGCN 1B	Yes	No			
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	AGFD SGCN 1B	Yes	No			
Saddled leaf-nosed snake (Phyllorhynchus browni)	AGFD SGCN 1B	No	No			

Table 1. HDMS Species with Occurrence Records within 5 Miles of the Project Area

Table 1. HDMS Species with Occurrence Records within 5 Miles of the Project Area

HDMS Species	Status*	Species Affected	Pop. Viability Affected
Brazilian free-tailed bat (Tadarida brasiliensis)	AGFD SGCN 1B	Yes	No
Bezy's night lizard (<i>Xantusia bezyi</i>)	FS S; AGFD SGCN 1B	Yes	No

*Status definitions:

USFWS BGA = Protected under federal Bald and Golden Eagle Protection Act

USFWS CCA = Candidate Conservation Agreement

USFWS E = Listed as endangered under ESA

USFWS T = Listed as threatened under ESA

FS S = Forest Service Sensitive Species

AGFD SGCN 1A, 1B = Arizona Species of Greatest Conservation Need

Effects Analysis

This biological evaluation covers the implementation of the Apache Leap SMA management plan. The proposed action is a management plan and forest plan amendment and does not direct any surfacedisturbing activities. The implementation of the management plan itself entails desired conditions, objectives, standards, guidelines, and management approaches that would achieve the stated purposes of the NDAA for which the area was designated. As management actions are implemented within the Apache Leap SMA, wildlife and vegetation conditions would move toward the desired conditions as described in the management plan. The proposed action includes exclusion of livestock grazing from portions of the Superior and Devil's Canyon Allotment pastures within the Apache Leap SMA. Future implementation of the management plan components could include activities such as limits on new construction of utilities infrastructure, removal of existing livestock improvements, and prohibition on overnight camping. These actions would provide long-term beneficial effects on wildlife and vegetation in the Apache Leap SMA owing to the reduction of both the amount and the severity of human disturbance within the project area.

Exclusion of livestock grazing from the portions of the Superior and Devil's Canyon Allotment pastures within the Apache Leap SMA would provide direct beneficial effects on wildlife and plant species and their habitats. Indirect effects would result from future implementation of the management plan and are expected to be beneficial overall to natural resources. Further, future implementation actions would be analyzed under a separate NEPA process, and species-specific mitigation measures would be developed at that time, if necessary.

USFWS Threatened and Endangered Species

<u>Arizona hedgehog cactus (*Echinocereus triglochidiatus* var. *arizonicus*): This species is *not known to occur* in the project area; the Apache Leap SMA management plan implementation will have *no effect* on this species.</u>

The Apache Leap SMA is within the range of this species and contains potentially suitable habitat for this species in the northern portion of the project area. This species has occurrence records within 5 miles of the project area (the closest known individual is located approximately 0.5 mile northeast of the project area). However, this species is more abundant north of U.S. Route 60, adjacent to the project area, with individual plants known to occur north and east of the Apache Leap SMA.

This species is *not known to occur* in the Apache Leap SMA. Its presence has not been confirmed during site visits and informal surveys specifically searching for the species by Forest Service biologists over the past several years. The proposed Apache Leap SMA management plan does not authorize any ground-

disturbing activities, and any effects arising from future activities will be evaluated on case-by-case basis during future NEPA analysis and subject to a separate decision process. Thus, the implementation of the proposed project will have *no effect* on this species.

<u>Ocelot (Leopardus pardalis)</u>: Ocelot is not known to occur in the project area, and the proposed action will have no effect on this species.

Although there is an occurrence record within 5 miles of the Apache Leap SMA, the individual killed near Top of The World between Superior and Globe along U.S. Route 60 may have been an extreme occurrence and dispersed well beyond its reasonable range. Since that time, numerous game cameras in the project area vicinity have not confirmed any additional sightings. Current information is lacking to draw conclusions about ocelot populations in Arizona, although more sightings have been substantiated recently in southern Arizona in the vicinity of the U.S.–Mexico border. No information exists regarding any established or breeding populations in Arizona. In addition, vegetation in the project area does not appear suitable to attract or hold this species. Apparently, ocelots in south Texas prefer greater than 95% canopy cover and avoid areas of intermediate (50%–75%) to no cover (U.S. Fish and Wildlife Service [USFWS], 2010). Connectivity to southern Arizona also appears limiting for dispersing individuals. Further, the proposed Apache Leap SMA management plan does not authorize any ground-disturbing activities, and any effects arising from future activities will be evaluated on case-by-case basis during future NEPA analysis and subject to a separate decision process. Thus, the proposed action will have no effect on the ocelot.

<u>Yellow-billed cuckoo (*Coccyzus americanus*):</u> The Apache Leap SMA does not contain riparian habitat suitable for nesting or migration. Thus, this species is *unlikely to occur*, and the project will have *no effect* on this species.

<u>Critical habitat</u>: There is **no designated or proposed critical habitat** within the Apache Leap SMA. There will be *no effect* on the Gila chub designated critical habitat occurring in Mineral Creek, approximately 5 miles southeast of the Apache Leap SMA.

Species Protected under Federal Bald and Golden Eagle Protection Act:

<u>Golden eagle (*Aquila chrysaetos*):</u> This species may use the Apache Leap SMA for foraging habitat. There are no records of breeding territories within the project area. Effects on this species from the adoption of the Apache Leap SMA itself are likely to be largely beneficial, as its prey species may have improved habitat quality or quantity; any effects resulting from future projects related to implementation of the Apache Leap SMA would be analyzed separately.

Forest Service Sensitive Species (not also listed under ESA):

<u>Pima Indian mallow (*Abutilon parishii*):</u> This species may occur, as the Apache Leap SMA is within the range of this species, and suitable rocky slope and canyon bottom habitat within desertscrub occurs. This species has occurrence records within 5 miles of the project area, although it was not observed during site visits. Effects on this species from implementation would be analyzed separately. The implementation of the Apache Leap SMA is likely to have beneficial impacts to this species long term, and the implementation is not likely to negatively impact the population viability of this species or contribute to a trend toward federal listing for this species.

<u>American peregrine falcon (*Falco peregrinus anatum*):</u> This species is known to occur in the project area; two individuals were observed exhibiting breeding behavior near the midpoint of the Apache Leap escarpment, which is an area previously recorded as an aerie. The proposed action would result in indirect and direct beneficial effects on peregrine falcon breeding areas. The potential for an increase in vegetative

cover related to the removal of grazing from the special management area, prohibition of overnight camping, and other activities that could be detrimental to habitat quantity and/or quality of prey species would result in an increase in prey habitat. An increase in availability of prey species could contribute to an increase in breeding success for peregrine falcons. Additionally, the decrease in the potential for human-caused disturbances, such as noise, to the species could further increase breeding success. The implementation of the Apache Leap SMA is likely to have beneficial impacts to this species long term, and the implementation is not likely to negatively impact the population viability of this species or contribute to a trend toward federal listing for this species.

Sonoran desert tortoise (*Gopherus morafkai*): This species is also covered by a Candidate Conservation Agreement. This species is known to occur within the Apache Leap SMA, this species has occurrence records within 5 miles, and portions of the Apache Leap SMA contain suitable habitat for this species. Thus, this species may experience beneficial effects resulting from implementation of the Apache Leap SMA. The proposed action would manage the project area to protect the natural character of the area, and management activities such as decommissioning and/or conversion of roads to trails, removal of grazing, prohibition of new construction of utility infrastructure, and withdrawal from mineral leasing and mining would maintain and protect burrowing habitat for this species within the project area. Additionally, the removal of grazing could result in an increase in vegetative cover and a reduction in competition with livestock for forage, and invasive plant species control could result in more native species, which would have indirect, beneficial effects on foraging habitat for Morafka's (Sonoran) desert tortoise. The implementation of the Apache Leap SMA is likely to have beneficial impacts to this species long term, and the implementation is not likely to negatively impact the population viability of this species or contribute to a trend toward federal listing for this species.

Lowland leopard frog (*Lithobates yavapaiensis*): This species is unlikely to occur, as the Apache Leap SMA does not contain suitable perennial aquatic water sources. In addition, species-specific surveys were conducted in the project area, and this species was not observed (WestLand Resources, 2012). Thus, no effects are expected on this species as a result of management plan implementation.

<u>Bezy's night lizard (*Xantusia bezyi*):</u> The Apache Leap SMA is within this species' range and contains potentially suitable rocky slope and boulder field habitat for this species. Thus, this species may experience beneficial effects on individuals or habitat. The proposed action would manage the project area to protect the natural character of the area, and management activities such as decommissioning and/or conversion of roads to trails, removal of grazing, prohibition of new construction of utility infrastructure, and withdrawal from mineral leasing and mining would maintain and protect rock habitat for this species within the project area. An increase in the vegetative cover within the project area could provide an increase in the quantity and quality of insect habitat, which are an important prey species for Bezy's night lizard. The implementation of the Apache Leap SMA is likely to have beneficial impacts to this species long term, and the implementation is not likely to negatively impact the population viability of this species or contribute to a trend toward federal listing for this species.

Bat colony

Owing to the historical mining that occurred within the Apache Leap SMA, many abandoned mines, adits, and other features are known to occur in the project area that may be used as roosting areas for bats. There are also abundant crevices within the project area that may serve as bat roosts. HDMS records did not identify individual species as occuring within the project area; however, other surveys have recorded bat species listed as Forest Sensitive Species within and in close proximity to the project area; these species are included in Table 3. Management plan implementation would include provisions for closure of abandoned mining infrastructure (including adits) that pose a risk to human safety. It is anticipated that mitigation measures would be developed during case-by-case NEPA analysis and decision processes that would further reduce the potential for adverse impacts to these species.

USFWS Threatened and Endangered Species of Pinal County

A species list of Threatened, Endangered, and Proposed species for Pinal County, Arizona, was requested from the USFWS. The effects of the proposed project on each species were analyzed, and Table 2 includes the determinations. The rationale for these determinations is also provided.

Common Name	Determination	Rationale
Bat, lesser long-nosed	NE	1
Ocelot	NE	2
Wolf, Mexican gray	NE	NOHAB; Distant from known released populations
Cuckoo, yellow-billed	NE	NOHAB
Cuckoo, yellow-billed proposed critical habitat	NE	NCH
Flycatcher, southwestern willow	NE	NOHAB
Flycatcher, southwestern willow critical habitat	NE	NCH
Owl, Mexican spotted	NE	NOHAB
Owl, Mexican spotted critical habitat	NE	NCH
Rail, Yuma clapper (Ridgeway's)	NE	NOHAB
Gartersnake, northern Mexican	NE	NOHAB
Gartersnake, northern Mexican proposed critical habitat	NE	NCH
Gartersnake, narrow-headed	NE	NOHAB
Gartersnake, narrow-headed proposed critical habitat	NE	NCH
Frog, Chiricahua leopard	NE	NOHAB
Frog, Chiricahua leopard, critical habitat	NE	NCH
Chub, Gila	NE	NOHAB
Chub, Gila critical habitat	NE	NCH
Chub, headwater	NE	NOHAB
Chub, roundtail	NE	NOHAB
Minnow, loach	NE	NOHAB
Minnow, loach, critical habitat	NE	NCH
Pikeminnow, Colorado (non-essential experimental)	NE	NOHAB
Pupfish, desert	NE	NOHAB
Spikedace	NE	NOHAB
Spikedace, critical habitat	NE	NCH
Sucker, razorback	NE	NOHAB

 Table 2. USFWS Species List for Pinal County Determinations and Rationale

Common Name	Determination	Rationale
Sucker, razorback, critical habitat	NE	NCH
Topminnow, Gila	NE	NOHAB
Cliffrose, Arizona	NE	OR
Hedgehog, Arizona	NE	3

Determination:

NE = No effect

Rationale:

NOHAB = habitat not present for this species; thus, it is unaffected

NCH = critical habitat for this species does not occur on the Apache Leap SMA

OR = the Apache Leap SMA is outside this species' geographic range; thus, it is unaffected

1 = The lesser long-nosed bat is *unlikely to occur* in the project area, and this project will have *no effect* on the species. The lesser long-nosed bat has not been recorded within Tonto National Forest boundaries and has no occurrence records within 5 miles. Even though the Apache Leap SMA contains vegetation (i.e., saguaros) that could be used for foraging and mines that could be used for roosting, other more favorable foraging plants (e.g., Palmer's agave [*Agave palmeri*] and nightblooming cereus [*Peniocereus greggii*]) are not present. Further, the project area is outside the known range of this species. Individuals have been reported, but not verified, in the Phoenix area (approximately 50 miles from the Apache Leap SMA); a night roost or an area of unknown use occurs approximately 45 miles northwest of the project area; and a known day roost occurs approximately 50 miles southwest of the project area near the upper limit of the foraging radius of this species (approximately 30 to 60 miles [USFWS, 2016). Thus, the project area near the upper limit of the foraging radius of this species' forage plants (i.e., saguaros) would be analyzed separately in the future, and mitigation to reduce or eliminate saguaro loss may be developed at that time. In addition, any abandoned mines within the Apache Leap SMA considered for future remediation (closure) would be surveyed prior to closure to establish the potential for bat habitat as well as to aid in identifying species using a feature. Any closure work deemed necessary would follow bat-friendly methods, and implementation of closure work would also follow appropriate timing (i.e., would occur in a season when these bats would not be present) to further negate impacts.

2 = The Apache Leap SMA implementation will have *no effect* on this species, because it is *not known to occur* in the project area. Although there is an occurrence record within 5 miles of the Apache Leap SMA, the individual killed near Top of the World between Superior and Globe along U.S. Route 60 may have been an extreme occurrence and dispersed well beyond its reasonable range. Since that time, numerous game cameras in the project area vicinity have not confirmed additional sightings. Current information is lacking to draw conclusions about ocelot populations in Arizona, although more sightings have been substantiated recently in southern Arizona in the vicinity of the U.S.–Mexico border. No information exists regarding any established or breeding populations in Arizona. In addition, vegetation in the project area does not appear suitable to attract or hold this species. Apparently, ocelots in south Texas prefer more than 95% canopy cover and avoid areas of intermediate (50%–75%) to no cover (USFWS, 2010). Connectivity to southern Arizona also appears limiting for dispersing individuals. Further, the proposed Apache Leap SMA management plan does not authorize any ground-disturbing activities, and any effects arising from future activities will be evaluated on case-by-case basis during future NEPA analysis and subject to a separate decision process. Thus, the proposed action will have no effect on the ocelot.

3 = This species *not known to occur* in the project area, the Apache Leap SMA management plan implementation will have *no effect* on this species. Apache Leap SMA is within the range of this species and contains suitable habitat for this species in the northern portion of the project area. This species has occurrence records within 5 miles of the project area; however, this species is more abundant north of U.S. Route 60, adjacent to the project area, with individual plants known to occur north and east of the Apache Leap SMA. However, this species is *not known to occur* in the Apache Leap SMA. However, this species is *not known to occur* in the Apache Leap SMA. Its presence has not been confirmed during site visits and informal surveys specifically searching for the species by Forest Service biologists over the past several years. The proposed Apache Leap SMA management plan does not authorize any ground-disturbing activities, and any effects arising from future activities will be evaluated on case-by-case basis during future NEPA analysis and subject to a separate decision process. Thus, proposed action will have *no effect* in this species.

Tonto National Forest Sensitive Species

Species on the Tonto National Forest 2016 Species List (Attachment 2) are included in this section. The effects of the proposed project on each species were analyzed, and the determinations are disclosed in the table below (Table 3). Rationale for these determinations is also provided.

Common Name	Determination	Rationale
Mammals		
Bat, Allen's lappet-browned	MAY, VT	1, 2
Bat, pale Townsend's big-eared	MAY, VT	1, 2
Bat, spotted	MAY, VT	1, 2
Bat, western red	MAY, VT	1, 2
Birds		
Falcon, American peregrine	MAY, VT	1, 2
Flycatcher, suphur-bellied	NE	NOHAB, OR
Goshawk, northern	NE	NOHAB, OR
Junco, yellow-eyed	NE	OR
Reptiles		
Lizard, Bezy's night	MAY, VT	1, 2
Tortoise, Morafka's desert	MAY, VT	1, 2
Amphibians		
Frog, lowland leopard	NE	NOHAB
Frog, northern leopard	NE	NOHAB, OR
Frog, western barking	NE	OR
Fish		
Chub, headwater (federally proposed)	NE	NOHAB
Chub, roundtail (federally proposed)	NE	NOHAB
Sucker, desert	NE	NOHAB
Sucker, Sonora	NE	NOHAB
Invertebrates		
Beetle, Parker's cylloepus riffle	NE	NOHAB, OR
Caddisfly, A	NE	NOHAB
Mayfly, A	NE	NOHAB, OR
Midge, netwing	NE	NOHAB, OR

Table 3. Forest Sensitive Species Determinations and Rationale

Common Name	Determination	Rationale
Springsnail, fossil	NE	NOHAB, OR
Plants		
Agave, Hohokam	NE	OR (elevational); HABNOSP
Agave, Tonto basin	NE	OR
Breadroot, Verde	NE	OR
Buckwheat, Ripley wild	NE	OR
Bugbane, Arizona	NE	NOHAB, OR
Dock, Blumer's	NE	NOHAB, OR
Fleabane, Fish Creek	NE	NOHAB, OR
Fleabane, Mogollon	NE	OR
Groundsel, toumey	NE	OR
Mallow, Pima Indian	MAY, VT	1, 2
Milkwort, Hualapai	NE	OR
Phlox, Arizona	NE	OR
Rockdaisy, Fish Creek	NE	OR
Rockdaisy, Salt River	NE	OR
Root, Arizona alum	NE	NOHAB, OR
Root, eastwood alum	NE	NOHAB, OR
Sage, Galiuro	NE	NOHAB, OR
Sandwort, Mt. Dellenbaugh	NE	OR
Sedge, Chihuahuan	NE	NOHAB, OR
Sedge, Cochise	NE	NOHAB, OR
Snapdragon, mapleleaf false	MAY, VT	1, 2
Vetch, horseshoe deer	NE	NOHAB, OR
Woodfern, Aravaipa	NE	NOHAB

Determinations:

NE = No effect

MAY, VT = May affect individuals, but is not likely to result in a trend toward listing or a loss of viability Rationale:

NOHAB = habitat not present for this species; thus, it is unaffected

OR = the Apache Leap SMA is outside this species' geographic range; thus, it is unaffected

OR (elevational) = Apache Leap SMA is outside this species' elevational range; thus, it is unaffected

HABNOSP = While suitable habitat occurs for this species, it does not occur in Apache Leap SMA, according to Forest Service specialists familiar with the area

1 = Minor, short-term, adverse impacts to individuals that should never reach the scale where a population is affected

2 = Long-term, beneficial effects on individuals and populations

Tonto National Forest Management Indicator Species

Management indicator species (MIS) are a category of focal species, the key characteristic of which is that the status and population trend of these species provide insights into the integrity of the larger ecological system. The populations of these species are believed to indicate the effects of management activities. Site-specific occurrence records are not available for most of these species, but each species' occurrence in its respective habitat is assumed, as documented in the "Tonto National Forest Management Indicator Species Status Report" (September 2002; updated in 2005) on file at the Tonto National Forest Supervisor's Office. Table 4 describes Tonto National Forest MIS, associated habitat, impacts from the proposed project, and rationale. Table 5 describes forestwide habitat and population trends for MIS, acres of habitat across the forest and within the project area, and determinations.

Vegetation Type/Species Occurring in the Project Area	Is the For Populatio Impac	the Forest-Wide opulation Being Impacted?		e KHC* Altered?	Rationale for Omission
	YES	NO	YES	NO	
Ponderosa Pine/Mixed Conifer		-	-	-	·
Elk		Х		Х	Habitat not present.
Turkey		Х		Х	Habitat not present.
Pygmy nuthatch		Х		Х	Habitat not present.
Violet-green swallow		Х		Х	Habitat not present.
Western bluebird		Х		Х	Habitat not present.
Hairy woodpecker		Х		Х	Habitat not present.
Goshawk		Х		Х	Habitat not present.
Abert squirrel		Х		Х	Habitat not present.
Pinyon – Juniper (woodland)					
Ash-throated flycatcher		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover as a result of grazing removal could result in a small increase in available habitat or an increase in the quality of habitat for this species.
Gray vireo		x		x	Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. However, tree density is not likely to increase as a result of these limitations.

Table 4. Tonto National Forest MIS Impact and Rationale Table

Vegetation Type/Species Occurring in the Project Area	Is the Forest-Wide Population Being Impacted?		Is the KHC* Being Altered?		Rationale for Omission	
	YES	NO	YES	NO		
Townsend's solitaire		X		X	Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. However, tree density, including juniper species density, is not likely to increase as a result of these limitations.	
Juniper (plain) titmouse		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An improvement in general vegetative conditions as a result of these limitations could result in a small increase in available habitat or an increase in quality of habitat for this species.	
Northern flicker		X		X	Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. However, snag density is not likely to increase as a result of these limitations.	
Spotted towhee		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover or shrub density could result in a small increase in available habitat or an increase in quality of habitat for this species.	

Vegetation Type/Species Occurring in the Project Area	Is the Fo Populati Impa	Is the Forest-Wide Population Being Impacted?		HC* Being ered?	Rationale for Omission	
	YES	NO	YES	NO		
Chaparral	-	-	-	-	<u>.</u>	
Spotted towhee		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover or shrub density could result in a small increase in available habitat or an increase in quality of habitat for this species.	
Black-chinned sparrow		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover or an increase in shrub diversity could result in a small increase in available habitat or an increase in quality of habitat for this species.	
Desert Grassland		1	1			
Savannah sparrow		X		Х	Habitat not present.	
Horned lark		Х		Х	Habitat not present.	
Desertscrub		I				
Black-throated sparrow		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover or an increase in shrub diversity could result in a small increase in available habitat or an increase in quality of habitat for this species.	
Canyon towhee		X	X		Adoption of the management plan does not authorize specific ground-disturbing activities; however, the proposed action would implement a management plan that establishes the goal of maintaining the natural character of the project area, including limitations on types of ground- disturbing or vegetation-modifying activities that would be permitted. An increase in vegetative cover as a result of these limitations could result in a small increase in available habitat or an increase in guality of habitat for this species.	

Vegetation Type/Species Occurring in the Project Area	Is the Forest-Wide Population Being Impacted?		Is the KHC* Being Altered?		Rationale for Omission	
	YES	NO	YES	NO		
Riparian – Low Elevation (1,500–3,50	00 feet)					
Bell's vireo		Х		Х	Habitat not present.	
Summer tanager		Х		Х	Habitat not present.	
Hooded oriole		Х		Х	Habitat not present.	
Riparian – High Elevation (over 3,000) feet)					
Hairy woodpecker		Х		Х	Habitat not present.	
Arizona gray squirrel		Х		Х	Habitat not present.	
Warbling vireo		Х		Х	Habitat not present.	
Western wood pewee		Х		Х	Habitat not present.	
Blackhawk		Х		Х	Habitat not present.	
Aquatic						
Macroinvertebrates		Х		Х	Habitat not present.	

* For an entire list of Key Habitat Component(s) (KHCs) by species, refer to Klein et al. (2005).

Table 5. Trends (Forest-Wide) and Total Forest/ Project Acres, and Determination Table

Vegetation Type/Species	MIS Population Trend (FW)	KHC Trend (FW)	Total Forest Acres (TFA)	Project Area Acres (PAA) Disturbed [†]	% PAA of TFA*	Determination
Ponderosa Pine/Mixed Conifer			283,204	0	0	NE
Elk	S	S				NE
Turkey	S	S				NE
Pygmy nuthatch	D	S				NE
Violet-green swallow	S	S				NE
Western bluebird	S	S				NE
Hairy woodpecker	S	S				NE
Goshawk	D	S				NE
Abert squirrel	D	S				NE
P/J (woodland)			1,155,722	144†	<0.01%	NE
Ash-throated flycatcher	D	S				NE
Gray vireo	D	S				NE
Townsend's solitaire	D	S				NE
Juniper (plain) titmouse	D	S				NE

Vegetation Type/Species	MIS Population Trend (FW)	KHC Trend (FW)	Total Forest Acres (TFA)	Project Area Acres (PAA) Disturbed [†]	% PAA of TFA*	Determination
Northern flicker	S	S				NE
Spotted towhee	S	S				NE

Vegetation Type/Species	MIS Population Trend (FW)	KHC Trend (FW)	Total F Acres (orest (TFA)	Project Area Acres (PAA) Disturbed†	% PAA of TFA*	Determination
Chaparral			265,4	480	259†	<0.01%	NE
Spotted towhee	S	S					NE
Black-chinned sparrow	S	S					NE
Dessert Grassland			316,8	394	0	0	NE
Savannah sparrow	S	U/S					NE
Horned lark	D	U/S					NE
Desertscrub			774,2	220	399 [†]	<0.01%	NE
Black-throated sparrow	S	D/S					NE
Canyon towhee	D	D/S					NE
Riparian Low Elevation (1,500–3,500 feet)			31,1	47	0	0	NE
Bald eagle	S	NC					NE
Bell's vireo	D	NC					NE
Summer tanager	D	NC					NE
Hooded oriole	S	NC					NE
Riparian (> 3,500 feet)			10,2	32	0	0	NE
Hairy woodpecker	S	NC					NE
Arizona gray squirrel	S	NC					NE
Warbling vireo	S	NC					NE
Western wood pewee	D	NC					NE
Common blackhawk	D	NC					NE
Aquatic			29,0	00	0	0	NE
Macroinvertebrates	S	N/A					NE
MIS population trend column key: KHC trend column key: I - Increasing trend for MIS population Forest wide U - Upward trend for KHC Forest wide D - Unknown trend for MIS population Forest wide D - Downward trend for KHC Forest wide S - Stable trend for MIS population Forest wide S - Stable trend for KHC Forest wide D - Decreasing trend for MIS population Forest wide S - Stable trend for KHC Forest wide D - Decreasing trend for MIS population Forest wide S - Stable trend for KHC Forest wide Determination column key: NC - No change for KHC Forest wide NE - No effect on the FW trends - i.e., any impacts will not alter the existing trends, regardless of the impacts in relation to the trends. Acreage Calculation: WC - Will Contribute to the current FW trends - i.e., any impacts are in the direction of the current trend. * Project area acreage is calculated by (PAA / TFA)*100 = % of TFA * No ground-disturbing activities are authorized in the proposed Apache Leap SMA; ground-disturbing projects in the Apache Leap SMA in the future will be subject to separate MIS analysis. Thus, these acreages represent the acreage impacted from the adoption of the special) = % of TFA ne Leap SMA in n of the special		

Determination of Impacts—Qualitative Analysis

No authorizations to conduct ground-disturbing activities are included in the proposed Apache Leap SMA management plan. Therefore, future activities will be limited by the management plan goal to maintain the natural character of the project area, and any effects on MIS species or habitat would be evaluated on case-by-case basis during future NEPA analysis and subject to a separate decision process.

Implementation of the Apache Leap SMA management plan includes limitations on ground-disturbing or vegetation-modifying activities that may be permitted (e.g., the removal of grazing from the special management area), and these limitations may result in small, beneficial impacts to the Key Habitat Components or MIS locally within the special management area. However, owing to the small percentage of total vegetative type covered by the Apache Leap SMA, compared with the amount Forest wide (less than 0.01% each for desertscrub, pinyon-juniper woodland, and chaparral), these beneficial impacts are not likely to be a significant factor in determining Forest-wide vegetation community trends or Forest-wide MIS population trends.

Tonto National Forest Migratory Bird Species of Concern

Executive Order 13186 imposes procedural requirements on project-level analyses for migratory birds, requiring the following:

- Evaluation of the effects of agency actions and plans on migratory birds, with emphasis on species of concern;
- Identification where unintentional take reasonably attributable to agency action is having, or is likely to have, a measurable negative effect on migratory bird populations

These requirements are fulfilled by (1) analyzing and disclosing the project's effects on Tonto National Forest migratory bird species of concern, (2) identifying any Important Bird Areas or overwintering areas that exist within or in proximity to the project area and analyzing and disclosing effects as appropriate, (3) identifying opportunities to restore or enhance migratory bird habitat or mitigate negative project effects and include these activities in the project plan, and (4) retaining adequate levels of snags and dead and downed wood.

To determine the species of concern within the Tonto National Forest, migratory bird species were compiled from two sources: Arizona Partners in Flight (Latta et al., 1999) and USFWS (2008). Bird species from three Biological Conservation Regions were selected: 33 (Sonoran and Mojave Desert), 34 (Sierra Madre Occidental), and 16 (Southern Rockies and Colorado Plateau). These species were narrowed down to those species that occurred on the Tonto National Forest based on the Tonto National Forest bird checklist (Forest Service, 2009) and listed on the Tonto National Forest Migratory Bird Species of Concern list (Forest Service, 2016).

To evaluate the effects of the agency action on particular migratory bird species, each Tonto National Forest Migratory Bird Species of Concern (see Attachment 2) was evaluated individually for potential to occur within the Apache Leap SMA (Table 6). Range or habitat information is from AGFD (2017), USFWS Arizona Ecological Services Field Office (USFWS, 2017), Corman and Wise-Gervais (2005), and Audubon (2017).

Common Name	Scientific Name	Habitat	Potential for Occurrence
Flammulated owl	Psiloscops flammeolus	Found in mountainous areas with pine forests. Nests in relatively open forest, typically ponderosa pine, in cool and fairly dry zones such as mountains of the interior. In some areas, favors groves of aspen. During migration, the species may be found at lower elevations in dense vegetation.	May occur. While there are no ponderosa pine forests in the project area, the species could use the project area during migration.
Northern goshawk	Accipiter gentilis	This species occurs primarily in ponderosa pine, mixed-species forest, spruce-fir woodlands, and some riparian communities, at elevations between 4,750 and 9,120 feet amsl.	Unlikely to occur. The project area does not contain forested habitat and is outside the known range for this species.
Olive-sided flycatcher	Contopus cooperi	Breeds in montane and northern coniferous forests, at forest edges and openings, such as meadows and ponds. Winters at forest edges and clearings where tall trees or snags are present.	Unlikely to occur. The project area does not contain montane or coniferous forests and is not suitable habitat for the species.
Grace's warbler	Setophaga graciae	Found primarily in ponderosa pine-oak forests of mountains in Arizona. Also in spruce, fir, and oak thickets in higher mountains of the Southwest.	Unlikely to occur. The project area does not contain ponderosa pine-oak forests and is not suitable habitat for the species.
Lewis's woodpecker	Melanerpes lewis	Use open ponderosa pine forest, open riparian woodland dominated by cottonwood, and logged or burned pine forest. Breeding distribution is widely associated with ponderosa pine distribution in western North America.	Unlikely to occur. The project area does not contain ponderosa pine forest or riparian woodland and is not suitable habitat for the species.
Olive warbler	Peucedramus taeniatus	Found in high mountains in pine and fir forests of high mountains, generally at elevations of 6,000 feet and above. Prefers ponderosa pine, but also occurs in other pines, firs, Douglas-firs, and adjacent oaks.	Unlikely to occur. The project area does not contain pine or fir forests and is not suitable habitat for the species.
Band-tailed pigeon	Patagioenas fasciata	Found in wooded or semi-open habitats in canyons with oaks, chaparral, and mountain forests. May forage along streams in lowland desert.	May occur. Suitable chaparral habitat is present in the project area.
Mexican spotted owl	Strix occidentalis lucida	This species occurs in canyons and dense, generally older forests of mixed conifer or ponderosa pine–Gambel oak, at elevations between 4,100 and 9,000 feet amsl.	Unlikely to occur. The project area does not contain suitable mixed conifer or ponderosa pine–Gambel oak forest habitat.
Cordilleran flycatcher	Empidonax occidentalis	Found in moist woods, forests, shady canyons along streams through mixed or coniferous forest. Often forages in conifers such as pines or Douglas-fir, but not common in purely coniferous forest.	Unlikely to occur. There are no coniferous forest or streams in the project area.
Golden-crowned kinglet	Regulus satrapa	Mostly found in conifers especially those of spruce, fir, and hemlock, less often in Douglas-fir or pines. In migration and winter may be found in deciduous trees, but tends to seek out conifers even then.	Unlikely to occur. The project area does not contain coniferous forest.
Red-faced warbler	Cardellina rubrifrons	Found in montane fir, pine, and pine-oak woodland. In migration and winter, this species uses humid montane forest, pine-oak association, and lowland	Unlikely to occur. The project area does not contain fir, pine, pine oak woodlands, or riparian woodlands.

		riparian woodland. Breeding occurs at elevations between 6,400 and 9,000 feet amsl.	
Red-naped supsucker	Sphyrapicus nuchalis	Found in woodlands and aspen groves in winter. In summer, mostly in mountains in mixed coniferous and deciduous forest, especially around aspens. During migration and winter, it occurs in both mountains and lowlands, deciduous trees, riverside willow groves, pine-oak woods, and orchards.	Unlikely to occur. No mixed coniferous woodlands, aspen groves, or riverside habitats are present in the project area.
Black-throated gray warbler	Setophaga nigrescens	Found in areas with pinyons and junipers in open mixed woods. Breeds in dry coniferous and mixed woods, especially of oak, juniper, and pinyon pine. Also frequents manzanita thickets and chaparral.	May occur. The project area contains chaparral and is suitable habitat for the species.
Golden eagle	Aquila chrysaetos	Open areas over tundra, prairie, rangelands, and desert.	May occur. The project area is suitable habitat for the species, and the species is known from the project vicinity, though there are no records of breeding territories within the project area.
Gray flycatcher	Empidonax wrightii	Great Basin desert in sagebrush; pinyon and juniper. In winter, willows and brush. Winters in mesquite groves and in streamside willows and other trees in lowlands.	May occur. There is no sagebrush; however, there are scattered pinyon pines and junipers in the project area.
Gray vireo	Vireo vicinior	Found in desert scrub, mixed juniper, or pinyon pine and oak scrub associations, as well as chaparral, in hot, arid mountains and high plains scrubland.	May occur. The project area contains chaparral and oak scrub and is suitable habitat for the species.
Juniper titmouse	Baeolophus ridgwayi	Found mainly in open woods of pinyon pine and juniper, as well as in oak or pine-oak woods.	May occur. Pinyon pine and juniper are scattered in the upper elevations of the project area.
Peregrine falcon	Falco peregrinus	This species is strongly associated with steep, rocky areas with cliffs near water.	Known to occur. This species was observed during site visits.
Pinyon jay	Gymnorhinus cyanocephalus	Found in areas with pinyon pines, junipers, and sagebrush. Elsewhere in streamside groves, oak woods, or other habitats.	May occur. There is no sagebrush; however, there are scattered pinyon pines and junipers in the project area.
Black-chinned sparrow	Spizella atrogularis	During breeding season, Black-chinned sparrows can be found in arid brushlands on rugged mountain slopes from sea level to almost 8,850 feet amsl.	Known to occur. This species was observed during site visits.
Swainson's hawk	Buteo swainsoni	Found in shrub-steppe areas with scattered trees, large shrubs, and riparian areas. They will often feed in agricultural areas. Areas they inhabit require at least small tracts of adjacent	May occur. Breeding habitat is not present in the project area; however, the project area could be used for foraging.

		land containing lightly irrigated agricultural areas, particularly with alfalfa and grass hay (their preferred habitat), or non-agricultural areas with low- or moderate-height vegetated areas.	
Bendire's thrasher	Toxostoma bendirei	Found in relatively open grassland, shrubland, or woodland with scattered shrubs or trees.	May occur. The shrublands in the project area are suitable habitat for the species.
Gila woodpecker	Melanerpes uropygialis	Desert washes, saguaros, river groves, cottonwoods, towns. Uses nesting cavities in cottonwood groves along rivers, large mesquites or willows, palms, or giant cactus, such as saguaro (<i>Carnegiea gigantea</i>) or cardon (<i>Pachycereus pringlei</i>).	Known to occur. This species was observed during site visits.
Gilded flicker	Colaptes chrysoides	Strongly associated with, but not completely restricted to, giant cactus forests of southwestern deserts.	May occur. The project area contains numerous saguaros and is suitable habitat for the species.
Phainopepla	Phainopepla nitens	Desert scrub, mesquites, oak foothills, mistletoe clumps, chaparral, streamside trees, and oak woodlands.	Known to occur. This species was observed during site visits.
Canyon towhee	Melozone fusca	Found in open pinyon-juniper woodland, chaparral on dry hillsides, grasslands with cholla and mesquite, thickets of scrub oak, and similar habitats.	May occur. Chaparral and open desert are present in the project area and are suitable habitat for the species.
Prairie falcon	Falco mexicanus	Grasslands and deserts.	May occur. The project area contains suitable desert habitat for the species.
Costa's hummingbird	Calypte costae	Dry, open habitats, including desertscrub, semi-desert, and chaparral.	Known to occur. This species was observed during site visits.
Elf owl	Micrathene whitneyi	Occupies semi-arid wooded canyons, gallery forests, thorn forest, and semi- open areas with scattered trees, including nesting in abandoned cavities of saguaros. Also in saguaro deserts and wooded canyons. Within its U.S. range, found in any lowland habitat that provides cover and good nesting cavities. Most common in deserts with many tall saguaro cactus or large mesquites, and in canyons in the foothills, especially around sycamores or large oaks.	May occur. The project area contains lowland habitat with saguaros, large mesquites, and oaks and is within the known range of the species.
Purple martin	Progne subis (subspecies P. s. hesperia is included in the draft Tonto National Forest SCC list below)	Uses densely vegetated Sonoran Desertscrub habitats with large saguaros, containing an abundance of cavities, at elevations between 1,800 and 4,060 feet amsl.	May occur. Sonoran Desertscrub is present in the project area, and it is suitable habitat for the species.
MacGillivray's warbler	Geothlypis tolmiei	Uses coniferous forest edges, burns, brushy cuts, second-growth alder thickets, and streamside growth.	Unlikely to occur. There are no coniferous forest edges, alder thickets, burns, brushy

			-
			cuts, or streamside growth in the project area.
Yuma clapper rail	Rallus longirostris yumanensis	In Arizona, found at elevations below 4,500 feet amsl in freshwater marshes, which are often dominated by cattails (<i>Typha</i> spp.), bulrushes (<i>Isolepis</i> spp.), and sedges (<i>Carex</i> spp.). The range includes the Colorado River from Lake Mead to Mexico; the Gila and Salt Rivers upstream to the area of the Verde confluence; Picacho Reservoir; and the Tonto Creek arm of Roosevelt Lake. This species may be expanding into other suitable marsh habitats in western and central Arizona.	Unlikely to occur. There are no freshwater marshes dominated by riparian herbaceous vegetation located within the project area.
Common black hawk	Buteogallus anthracinus	Deciduous riparian habitats with permanent water.	Unlikely to occur. There is no riparian habitat in the project area for the species.
Northern beardless- tyrannulet	Camptostoma imberbe	Mesquite or cottonwood/willow groves.	Unlikely to occur. There are no mesquite or cottonwood/willow groves in the project area.
Yellow warbler	Setophaga petechia	Streamside thickets.	Unlikely to occur. There are no streams or streamside thickets in the project area.
Bald eagle	Haliaeetus leucocephalus	Bald eagles typically breed and winter in forested areas adjacent to large bodies of water. Throughout its range, the species selects large roost trees that are open and accessible.	Unlikely to occur. There are no large bodies of water or large roost trees in the project area.
Bell's vireo	Vireo bellii	Inhabits lowland riparian areas, with willows, mesquite, and seep willows. The vireo prefers dense, low, shrubby vegetation in riparian areas. Locally found in chaparral, woodlands, and areas with scrub oaks.	May occur. Chaparral and scrub oaks are present in the project area, and it is not suitable habitat for the species.
Southwestern willow flycatcher	Empidonax traillii extimus	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder (<i>Acer negundo</i>), saltcedar, Russian olive (<i>Elaeagnus angustifolia</i>), buttonbush (<i>Cephalanthus</i> spp.), and arrowweed (<i>Pluchea sericea</i>) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet tall, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet amsl.	Unlikely to occur. The species has been recorded in the vicinity of the project area; however, the project area does not contain riparian vegetation suitable for nesting or migratory habitat for the species.
Yellow-billed cuckoo	Coccyzus americanus	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet amsl. Dense understory foliage appears to be an important factor in nest site selection. The highest concentrations in Arizona are along the Agua Fria, San	Unlikely to occur. The species has been recorded in the vicinity of the project area; however, the project area does not contain riparian vegetation suitable for nesting

		Pedro, upper Santa Cruz, and Verde River drainages and Cienega and Sonoita Creeks.	or migratory habitat for the species.
Lucy's warbler	Oreothlypis luciae	Lowland mesquite woodlands.	Unlikely to occur. No mesquite woodlands are present in the project area.

Table 6. Tonto National Forest Migratory Bird Species of Concern, Habitat, and Potential for Occurrence.

Effects

Migratory birds. Individuals of the migratory bird species that are known to occur or may occur could experience effects from the implementation of the Apache Leap SMA. The proposed action would result in indirect, beneficial effects on migratory birds within the project area. The limitation of ground- or vegetation-disturbing activities would increase ground cover and reduce the potential for disturbance to migratory bird nesting habitat within the project area. The proposed action would have a long-term, beneficial effect on raptors, such as golden eagles, Swainson's hawk, elf owl, and flammulated owl, as the removal of grazing from the project area, as well as limitation of other ground- or vegetation-disturbing activities, would increase ground cover and available forage for prey species, which could result in an increase in availability of prey.

The plan does not provide details or identify actions of on-the-ground activities or implementation-level projects. All future proposed actions within the Apache Leap SMA management plan implementation will be analyzed separately, and impacts to migratory birds and mitigation measures to reduce those impacts will be determined at that time.

Important Bird Areas and overwintering areas. There are three IBAs located within Tonto National Forest. They are the Cave Creek IBA, Salt and Verde Riparian Ecosystem IBA, and Boyce Thompson Arboretum and Arnett-Queen Creeks IBA. There is also a designated overwintering area at Roosevelt Lake. There are no IBAs or overwintering areas within the project area, though the Boyce Thompson Arboretum IBA is located approximately 4 miles west of the proposed Apache Leap SMA.

Snags and dead and downed wood. Snags and dead and downed wood will be minimally affected. The implementation of the Apache Leap SMA management plan will be largely beneficial, decreasing human disturbance (frrom overnight camping) and cattle disturbance (from grazing) and allowing any existing snags or dead and downed wood to remain in place, undisturbed. Any future implementation-level projects within the Apache Leap SMA will be analyzed separately, and mitigation measures to reduce the impacts to any occurring snags or dead or downed wood will be determined at that time.

Determinations

Migratory birds. The action will have no measurable negative effect on the migratory bird population, as it does not direct any surface-disturbing activities. The action would have long-term, beneficial effects on migratory birds and habitat in Apache Leap SMA. Future actions would be analyzed under a separate NEPA process, and species-specific mitigation measures would be developed at that time, if necessary. *IBAs and overwintering area.* No effects will occur on IBAs or overwintering areas because no IBAs or overwintering areas occur within the action area of the project.

Snags and dead and downed wood. The action will have no measurable negative effect on snags and dead and downed wood, as it does not direct any surface-disturbing activities. Future actions would be analyzed under a separate NEPA process and could be mitigated for during separate implementation-level analyses.

laybell Prepared By: all Wildlife Biologist

Date: August 25, 2017

Date: August 25, 2017

Prepared By:

Biologist/Environmental Planner



24

Figure 1. Project area location.

References

- 113th Congress (2013–2014). 2014. Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015; Section 3003: Southeast Arizona Land Exchange and Conservation. H.R. 3979, Public Law 113–291. Available at: https://www.congress.gov/bill/113th-congress/house-bill/3979. Accessed January 2017.
- Arizona Game and Fish Department. 2017. Arizona Environmental Online Review Tool Report: Apache Leap Special Management Area. Project ID: HGIS-04237. August 25.
- Audubon. 2017. Guide to North American Birds. Available at: http://www.audubon.org/bird-guide. Accessed April 2017.
- Brown, D.E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.
- Corman, T., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.
- Forest Service. 1985. *Tonto National Forest Plan Land and Resource Management Plan*. Southwestern Region. October.
- . 2009. Birds of the Tonto National Forest: A Checklist. Available at: https://www.fs.usda.gov/detail/tonto/landmanagement/resourcemanagement/?cid=fsbdev3_01877
 9. Accessed August 18, 2017.
- Klein, E., M. Gilbert, S. Lisius, R. Richards, M. Ross, C. Woods, B. Calamusso, D. Pollock, and J. Spencer. 2005. Tonto National Forest Land and Resource Management Plan: Management Indicator Species Status Report. Version 2.0. Revised. Originally prepared in 2002. Forest Service. July 15.
- Latta, M.J., C.J. Beardmore, and T.E. Corman. 1999. Arizona Partners in Flight Bird Conservation Plan. Version 1.0. Nongame and Endangered Wildlife Program Technical Report 142. Phoenix: Arizona Game and Fish Department.
- U.S. Fish and Wildlife Service (USFWS). 1995. *Lesser Long-nosed Bat Recovery Plan*. Albuquerque, New Mexico: U.S. Fish and Wildlife Service.
- ———. 2008. *Birds of Conservation Concern*. Arlington, Virginia: U.S. Fish and Wildlife Service, Division of Migratory Bird Management. December.
 - ——. 2010. Ocelot Recovery Plan (Leopardus pardalis): Draft First Revision. Albuquerque, New Mexico: U.S. Fish and Wildlife Service, Southwest Region.
- ------. 2016. *Species Status Assessment for the Lesser Long-nosed Bat* (Leptonycteris yerbabuenae). Albuquerque, New Mexico: U.S. Fish and Wildlife Service, Southwest Region. December.
- ------. 2017. Arizona Ecological Field Office, Southwest Region. Available at: https://www.fws.gov/southwest/es/. Accessed June 2017.

WestLand Resources. 2012. *Amphibian and Reptile Surveys: Resolution Copper Mining*. Job No. 807.49. Prepared for Resolution Copper Mining. Tucson, Arizona: WestLand Resources. December 12.

ATTACHMENT 1

Arizona Online Environmental Review Tool Report

ATTACHMENT 2

Tonto National Forest 2016 Species Lists