

MIGRATORY BIRD ANALYSIS ROSEMONT COPPER DRILLING PROJECT NOGALES RANGER DISTRICT, CORONADO NATIONAL FOREST

1.0 LOCATION

For the purposes of this report, the *project area* is defined as all areas in which any ground disturbance will take place. The *action area* is defined as the project area plus the area of potential effect for each species discussed in subsequent sections of this report.¹ The project area is located within the Santa Rita Mountains at elevations ranging from 4,400 to 6,300 feet above mean sea level (amsl). The majority of the project area consists of federal lands administered by the Nogales Ranger District of the Coronado National Forest. The remainder is private property owned by Rosemont Copper Company, State Trust land administered by the Arizona State Land Department, and federal lands administered by the Bureau of Land Management. The project area encompasses portions of Townships 18 and 19, Ranges 15 and 16, Gila and Salt River Baseline and Meridian, Pima County, Arizona (Figure 1). These lands are projected on the Helvetia and Empire Ranch, Arizona, U.S. Geological Survey 7.5-minute topographic maps. In addition to the lands that constitute the project area, the action area includes the portions of Davidson and Cienega creeks downstream of the project area for purposes of this analysis.

The project area is located within the Mexican Highlands Physiographic Ecoregion (Physiographic Area map in Partners in Flight [PIF] 2006) and lies within two vegetation communities, Semidesert Grassland and Madrean Evergreen Woodland, as defined by Brown (1994). Vegetation in the project area is mostly composed of typical Semidesert Grassland and Madrean Evergreen Woodland plant species, although riparian species also occur along larger drainages in the project area. The Madrean Evergreen Woodland community is found at higher elevations in the western and southern portions of the project area. This community is characterized by open woodland or savanna; i.e., trees interspersed with grasses and forbs. Semidesert Grassland, characterized by open grasslands with widely scattered shrubs and cacti, covers the lower elevations of the project area.

Topography is dominated by rolling to steep hills bisected by numerous drainages and small canyons. The Santa Rita range includes numerous drainages containing riparian habitat, but few are perennial, and of those only sections above 6,000 feet amsl typically are year-round perennial (National Audubon Society 2008). This is evident in the Rosemont project area, as there are no perennial drainages present. Barrel Canyon is the principal drainage system for the east side of the project area. Wasp, McCleary, and Scholefield canyons discharge to Barrel Canyon, which discharges to Davidson Canyon (and eventually to Cienega Creek) east of the project area. The northwest side of the project area is drained by a series of unnamed headwater tributaries of Sycamore Canyon. Broadleaf riparian vegetation is present along some of the major washes and at some of the more reliable springs.

¹ 50 Code of Federal Regulations (CFR) 402.02 defines the action area as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”

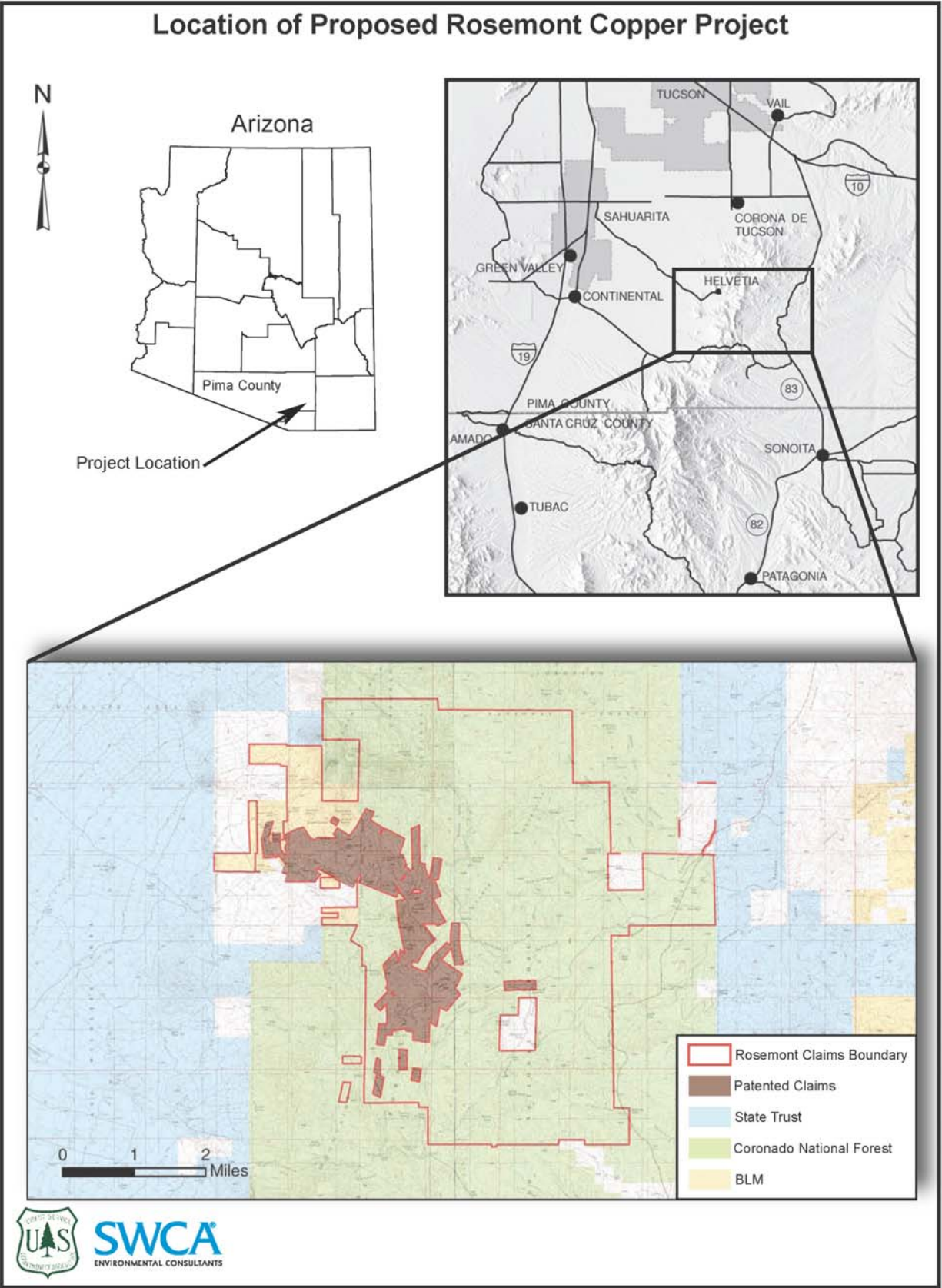


Figure 1. Project location.

2.0 VEGETATION COMMUNITIES

2.1 Semidesert Grassland

Historically within the project area, vegetation consisted primarily of perennial bunch grasses (University of Arizona 1977, University of Arizona 1981). Currently, three-awn (*Aristida* spp.) and tobosa (*Hilaria* spp.) grasses, together with grama grasses (*Bouteloua* spp.), predominate. Some areas are still vegetated almost exclusively by grasses. In other places, oaks (*Quercus* spp.), junipers (*Juniperus* spp.), and/or mesquites (*Prosopis velutina*) are interspersed with grasses. In most areas, however, vegetative cover is dominated by a variety of low-growing trees, shrubs, and cacti with scattered patches of grass. Grass species in the project area include the following: black (*Bouteloua eriopoda*), blue (*B. gracilis*), sideoats (*B. curtipendula*), and hairy (*B. hirsuta*) grammas; plains (*Eragrostis intermedia*) and Lehmann (*E. lehmanniana*) lovegrasses; buffalo grass (*B. dactyloides*); little bluestem (*Schizachyrium cirratum*); plains bristlegrass (*Setaria macrostachya*); fluffgrass (*Dasyochloa pulchella*); burrograss (*Scleropogon brevifolius*); and slim tridens (*Tridens muticus*). Annual and perennial forbs are abundant. Other conspicuous species present in the project area are whitethorn (*Acacia constricta*) and catclaw (*A. greggii*) acacias; various species of prickly-pear cactus (*Opuntia* spp.) and cholla (*Cylindropuntia* spp.); century plant (*Agave palmeri*); beargrass or Sacahuista (*Nolina microcarpa*); desert spoon (*Dasyilirion wheeleri*); and soaptree (*Yucca elata*) and banana (*Y. baccata*) yuccas.

Semidesert Grassland is the most common vegetation community in the Mexican Highlands ecoregion and covers most of the lowlands. The majority of Semidesert Grassland vegetation is on State Trust Lands and private lands, which have a long history of intensive cattle grazing. The condition of this vegetation community is generally poor as evidenced by the small number of grass species and the large shrub component. According to Schussman and Gori (2004), the condition of Semidesert Grassland vegetation is considered good across only about 9% of its range. The remainder shows either moderate levels of shrub invasion (39%), or is dominated by shrubs or nonnative grasses, or suffers from severe erosion (52%). Lack of regular fires and high grazing pressure combined with drought may have led to conversion of large areas from grassland to desertscrub. The historic extent of the Semidesert Grassland community has also been reduced by approximately 10% because of development and agriculture.

There are several separate issues involved in the restoration of this vegetation community, and restoration ecologists have differing opinions on the potential for restoration. Some scientists believe that native grasses cannot be restored because of changes in soil characteristics and a lowering of the water table. Some locations have been restored with long periods of decreased grazing pressure, and others have improved through the use of herbicides to reduce shrubs and thereby promote grasses, but these efforts have been small in scale and expensive. Drought and climate change have further impacted the ability of this vegetative community to recover. Natural fire, which historically maintained this community, is no longer effective due to the reduction in grass cover to carry the fire. Furthermore, a natural fire regime is not likely to be restored on most of the Semidesert Grassland because of continued grazing pressure and development of human communities within the vegetation type. In some places, introduced nonnative plants (for example, Lehmann lovegrass) have invaded the natural vegetation and caused ecosystem changes that may not be reversible. In places where nonnative grasses have become established, unnaturally frequent and intense fire regimes have become established, which furthers the spread and dominance of the nonnative plant species.

2.2 Madrean Evergreen Woodland

The Madrean Evergreen Woodland vegetation community is found primarily in mountainous areas of southeastern Arizona. Evergreen oaks dominate Madrean Evergreen Woodland, but junipers and pinyon

pinus are also often present. Open savannas are common in some areas with numerous grasses growing beneath the oaks. Common Madrean Evergreen Woodland tree species include the following: Emory oak (*Quercus emoryi*), Mexican blue oak (*Q. oblongifolia*), Arizona white oak (*Q. arizonica*), silverleaf oak (*Q. hypoleucoides*), alligator bark juniper (*Juniperus deppeana*), one-seed juniper (*J. monosperma*), and Mexican pinyon (*Pinus cembroides*).

The area occupied by Madrean woodlands in Arizona has remained largely unchanged within historic times. However, fire suppression, both deliberate and incidentally from livestock grazing, has altered the community composition to favor trees and shrubs over grasses in some areas (McPherson 1992). Although only about 6% of the Madrean woodlands display fire regimes that are severely altered from their historical condition, 77% are considered moderately altered, creating a moderate risk of losing key ecosystem components (Schmidt et al. 2002). This has been attributed to moderate grazing pressures historically, which removed vegetative cover and reduced fire frequency. Vegetation in this community is now found at higher densities than was observed historically, and species that are not adapted to natural fire (e.g., juniper) have increased in abundance (Schmidt et al. 2002).

3.0 MIGRATORY BIRDS

Under the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 United States Code 703–711), it is unlawful to take, kill, or possess migratory birds. Executive Order 13186, issued on January 11, 2001, further defines the responsibilities of federal agencies to protect migratory birds; a list of those protected birds can be found in 50 CFR 10.13. To date, there has been no regional or U.S. Forest Service (USFS) policy developed to provide guidance on how to incorporate migratory birds into National Environmental Policy Act analysis. The Regional Office of the USFS recommends analyzing the effects as follows: 1) effects on Species of Concern listed by Arizona State Partners in Flight (ASPF); 2) effects on Important Bird Areas (IBAs); and 3) effects on important overwintering areas. The following is an attempt to evaluate the impacts, if any, of this project to migratory birds.

4.0 SPECIES OF CONCERN

ASPF lists priority species of concern by vegetation type. The PIF (2006) website for the Mexican Highlands Ecoregion lists priority bird species by vegetation type. Vegetation types, bird species considered for analysis (i.e., those occurring in the project area), and the expected habitat impacts from the “Proposed Action” are listed in Table 1.

5.0 IMPORTANT BIRD AREAS

The Proposed Action would be located in the Santa Rita Mountains/Madera Canyon IBA (National Audubon Society 2008). The IBA boundary coincides with the National Forest boundary around the Santa Rita Mountains. As part of the Sierra Madre avian community, which extends far south into central Mexico, the Santa Rita Mountains/Madera Canyon IBA contains a number of bird “Species of Conservation Status,” according to the National Audubon Society (2008).

Table 1. Impacts from Proposed Action to Partners in Flight Priority Bird Species (Latta et al. 1999; PIF 2006). Habitat and Components Are Based Largely on Corman and Wise-Gervais (2005)

Vegetation Type	Species*	Important Habitat Components	Habitat Impacts	Estimated Trend in Habitat and Population under Proposed Action
Riparian				
Mature gallery forests along perennial streams	common blackhawk	Nests in large trees (mostly sycamores and cottonwoods) found in groves.	No impact. The project area does not contain mature gallery forest.	No change. Potential effects on this species would occur only if the project resulted in impacts to riparian vegetation in Davidson or Cienega creeks, which is not anticipated.
Sycamores and oaks for nesting, pine-oak woodlands	eared trogon	Nests in large sycamores and oaks; prefers dense riparian vegetation.	No impact. The project area does not contain dense riparian vegetation.	No change. Potential effects to this species would occur only if the project resulted in impacts to riparian vegetation in Davidson or Cienega creeks, which is not anticipated.
Native to exotic, single species to multispecies, box elder, tamarisk, willow, russian olive, alder	southwestern willow flycatcher	Dense habitats along rivers, streams, or other wetland areas usually with surface water; requires dense midstory and understory.	No impact. The project area does not contain dense riparian vegetation.	No change. Potential effects to this species would occur only if the project resulted in impacts to riparian vegetation in Davidson or Cienega creeks, which is not anticipated.
Cottonwood-willow associations, sometimes mesquite bosque	western yellow-billed cuckoo (P)	Large blocks of contiguous cottonwood-willow habitat or mesquite bosque.	No impact. The project area does not contain large blocks of cottonwood-willow or mesquite bosque.	No change. Potential effects to this species would occur only if the project resulted in impacts to riparian vegetation in Davidson or Cienega creeks, which is not anticipated.
Broadleaf riparian woodlands, Madrean Evergreen Woodlands	broad-billed hummingbird (P)	Riparian areas among sycamores, cottonwoods, evergreen oaks, alligator-bark juniper, and mesquite.	May be impacted. Suitable habitat (riparian areas within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Madrean Pine-Oak and Madrean Evergreen Woodlands	blue-throated hummingbird	Highest densities in riparian areas, where sycamore dominated drainages connect to Madrean pine-oak forest.	May be impacted. Suitable habitat (riparian areas within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Pinyon-juniper, oak/juniper, and chaparral; typically observed in canyons or wooded drainages	black-chinned hummingbird (P)	Habitat generalists that breed in a variety of vegetation types; highest densities in riparian areas.	May be impacted. Suitable habitat (oak/juniper) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and Semidesert Grasslands	northern beardless-tyrannulet	Upper riparian areas, such as upper floodplains with mesquite bosques and a variety of deciduous hardwood species.	No impact. The project area does not contain mesquite bosque and a variety of deciduous hardwood species.	No change. Potential effects on this species would occur only if the project resulted in impacts to riparian vegetation in Davidson or Cienega creeks, which is not anticipated.
Typically found in pinyon-juniper woodlands and adjacent grasslands	Cassin's kingbird (P)	Require good cover interspersed with open areas for foraging; otherwise, they are habitat generalists.	May be impacted. Suitable habitat (grassland interspersed with woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.

Table 1. Impacts from Proposed Action to Partners in Flight Priority Bird Species (Latta et al. 1999; PIF 2006). Habitat and Components Are Based Largely on Corman and Wise-Gervais (2005), Continued

Vegetation Type	Species*	Important Habitat Components	Habitat Impacts	Estimated Trend in Habitat and Population under Proposed Action
Semidesert grassland to lower madrean encinal woodland	thick-billed kingbird	Highly associated with perennial and intermittent stream riparian areas, especially of larger drainages.	May be impacted. Suitable habitat (riparian areas within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Mesquite bosques, heavily wooded desert washes with cottonwood-willow and well-developed understory	Bell's vireo (P)	Dense, shrubby vegetation and woodland edges; typically with mesquite present and perennial or intermittent drainages nearby.	May be impacted. Suitable habitat (dense, shrubby riparian vegetation with mesquite present) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Pinyon-juniper woodlands scattered with ponderosa pine, grasslands scattered with junipers, and riparian woodlands	Bewick's wren (P)	Canyons and foothill drainages with sycamore and lowland drainages with cottonwood-willow and mesquite.	May be impacted. Suitable habitat (grasslands scattered with junipers) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Mostly found in desertscrub; but also mesquite bosque, riparian woodlands, pinyon-juniper, madrean evergreen woodland, and semidesert grasslands	Phainopepla (P)	Closely associated with mistletoe, paloverde, mesquite, acacia, oaks, and sycamores.	May be impacted. Suitable habitat (mesquite, acacia, and oaks within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and semidesert grassland	Lucy's warbler (P)	Thickets along streams, such as mesquite bosques and hardwoods.	May be impacted. Suitable habitat (thickets along streams within semidesert grassland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
From pine/oak woodlands to montane conifer forests	hepatic tanager (P)	Found in terrestrial and riparian situations, of both open and closed stands.	No impact. The project area does not contain stands of pine/oak or conifer.	No change. Suitable habitat exists outside of the project area in the Santa Rita Mountains, but these areas will not be affected by the Proposed Action.
Lowland riparian thickets and dense growth of dry desert washes	Abert's towhee	Dense understory and damp soil; typically associated with seep willow, cottonwood-willow, and mesquite.	May be impacted. Suitable habitat (lowland riparian thickets that contain mesquite) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and Semidesert Grassland	varied bunting (P)	Upland or in canyons, in dry washes, or edge of riparian areas; generally associated with low, thorny shrubs.	May be impacted. Suitable habitat (low-thorny shrubs near riparian areas) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert Grasslands, Semidesert Grasslands, and Madrean Encinal Woodland	hooded oriole (P)	Found in riparian areas associated with broadleaf deciduous trees.	May be impacted. Suitable habitat (riparian areas in semidesert grassland and Madrean woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.

Table 1. Impacts from Proposed Action to Partners in Flight Priority Bird Species (Latta et al. 1999; PIF 2006). Habitat and Components Are Based Largely on Corman and Wise-Gervais (2005), Continued

Vegetation Type	Species*	Important Habitat Components	Habitat Impacts	Estimated Trend in Habitat and Population under Proposed Action
Semidesert Grassland Habitat				
Semidesert grassland	Swainson's hawk	Closely associated with grassland habitats, but has flexibility with the presence of shrubs; mostly nests in mesquite.	May be impacted. Suitable habitat (grassland interspersed with shrubs and mesquite) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and semidesert grassland—shrubs and bunchgrasses	Botteri's sparrow (P)	Bajadas and floodplains with tall bunchgrasses and shrubs that provide dense ground cover.	May be impacted. Suitable habitat (Semidesert Grassland with tall bunchgrasses and shrubs) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and semidesert grassland—grasses and shrubs	Cassin's sparrow (P)	Tall mature, native grasses and scattered mesquite, providing significant ground cover.	May be impacted. Suitable habitat (grassland interspersed with mesquite) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Desert and semidesert grassland—grasses and shrubs	rufous-winged sparrow (P)	Flat to rolling hills with grasses and woody cover at elevations below 4,000 feet amsl.	No impact. Entire grassland area affected by proposed action is above 4,000 feet amsl.	No change. Suitable habitat exists in the Santa Rita Mountains outside of the project area in the grasslands below Madera Canyon, but these areas will not be affected by the Proposed Action.
Desert and semidesert grassland—bunchgrasses	Baird's sparrow	Rolling grasslands with bunchgrasses and no canopy, at elevations between 3,000 and 5,000 feet amsl	No impact. Suitable habitat (rolling grasslands) does not exist in the project area.	No change. Suitable habitat exists in the Santa Rita Mountains outside of the project area in the grasslands below Madera Canyon, but these areas will not be affected by the Proposed Action.
Desert and semidesert grassland—bunchgrasses	grasshopper sparrow (both breeding and wintering)	Bunchgrasses providing thick ground cover with no canopy at elevations between 3,000 and 5,000 feet amsl.	No impact. Suitable habitat (bunchgrass providing thick ground cover with no canopy) does not exist in the project area.	No change. Suitable habitat does not exist near the project area.
Arizona upland subdivision of sonoran desertscrub	cactus ferruginous pygmy-owl	Diversity of species and structure with well-developed understory, mid-story, and canopy layers below 4,000 feet amsl.	No impact. Entire project area affected by Proposed Action is above 4,000 feet amsl.	No change. Project area does not contain Sonoran Desertscrub and occurs above elevational range used by this species.
Sonoran desertscrub and semidesert grassland	five-striped sparrow	Tall, dense, and often thorny brush with scattered grasses and forbs, typically on steep, arid hillsides and slopes.	No impact. Suitable habitat (grassland interspersed with tall, dense thorny shrubs) does not exist in the project area.	No change. Suitable habitat exists in the Santa Rita Mountains outside the project area in the grasslands below Madera Canyon, but these areas will not be affected by the Proposed Action.

Table 1. Impacts from Proposed Action to Partners in Flight Priority Bird Species (Latta et al. 1999; PIF 2006). Habitat and Components Are Based Largely on Corman and Wise-Gervais (2005), Continued

Vegetation Type	Species*	Important Habitat Components	Habitat Impacts	Estimated Trend in Habitat and Population under Proposed Action
Madrean Pine-Oak Woodland				
Madrean oak woodlands; mountain drainages with sycamore, oaks, pines, juniper; madrean pine-oak woodlands	whiskered screech owl	Forested canyons, slopes, and ridges; dense stands of madrean evergreen oaks with an abundance of medium-sized to large trees and dense screening foliage.	May be impacted. Small areas of suitable habitat (dense stands of Madrean evergreen oaks) exist in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Old growth mixed-conifer; ponderosa pine, madrean evergreen oak, and madrean pine-oak woodlands	Mexican spotted owl	Cool, densely vegetated areas in a variety of forest stand conditions, but also found in steep, sparsely wooded canyons.	No impact. Preferred vegetation type and drainage conditions do not exist in project area.	No change. Suitable habitat exists outside of the project area in portions of the Santa Rita Mountains, but these areas will not be affected by the Proposed Action.
Madrean evergreen oak and pine-oak woodlands, mountain canyons and drainages dominated by oaks and sycamores, riparian woodlands	Arizona woodpecker (P)	Occur in several forested habitats dominated by madrean evergreen oaks, including stringers of oaks fingering through dry desert riparian washes into grasslands.	May be impacted. Suitable habitat (oaks fingering through washes interspersed with grassland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Found in a variety of open woodlands and forest edge habitats; typically associated with madrean pine-oak woodlands	buff-breasted flycatcher	Typically found in wide, gently sloping mountain drainages with open canopy forests of pines and evergreen oaks.	No impact. The project area does not contain pine-oak woodland.	No change. Suitable habitat exists outside of project area in portions of the Santa Rita Mountains, but these areas will not be affected by the Proposed Action.
Madrean evergreen oak and pine-oak woodlands, adjacent foothill drainages and mountain canyon bottoms	Hutton's vireo (P)	Associated with evergreen oaks and tall, continuously canopied woodlands with large oaks and shade.	May be impacted. Suitable habitat (Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Madrean evergreen oak and pine-oak woodlands, adjacent oak-associated drainages and canyons	Mexican jay (P)	Rely heavily on acorns, thus typically found in habitats dominated by oaks.	May be impacted. Suitable habitat (Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Madrean evergreen oak woodlands, canyons and foothill drainages, tall riparian woodlands	bridled titmouse (P)	Highest densities typically found in or near madrean evergreen oak associations.	May be impacted. Suitable habitat (Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.

Table 1. Impacts from Proposed Action to Partners in Flight Priority Bird Species (Latta et al. 1999; PIF 2006). Habitat and Components Are Based Largely on Corman and Wise-Gervais (2005), Continued

Vegetation Type	Species*	Important Habitat Components	Habitat Impacts	Estimated Trend in Habitat and Population under Proposed Action
A generalist of oak and juniper woodlands and sometimes conifer forests	Virginia's warbler (P)	Upland, riparian, brushy areas; typically observed in canyons, drainages, or steep mountain slopes with oaks.	May be impacted. Suitable habitat (riparian areas and drainages within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Primarily montane conifer forests, but also pine/oak, oak, or pinyon-juniper woodlands	Grace's warbler	Most likely to be found in riparian areas or areas with parklike stands of mature trees; favor open conifer forests.	May be impacted. Suitable habitat (riparian areas within Madrean Evergreen Woodland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Ponderosa pine and pine-oak forests and mountain drainages	painted redstart (P)	Most frequently observed in well-shaded, forested canyons and mountain slopes dominated by sycamores and evergreen oaks.	No impact. The project area does not contain pine-oak or Ponderosa Pine Woodland.	No change. Suitable habitat exists outside of project area in portions of the Santa Rita Mountains, but these areas will not be affected by the Proposed Action.
Desert to pinyon-pine and oak woodlands, chaparral, and grasslands	Scott's oriole (P)	Breed in a wide array of habitats; generally found in open woodlands and arid scrub areas.	May be impacted. Suitable habitat (Madrean woodland and Semidesert Grassland) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.
Cliff/Rock				
Steep canyon walls, cliffs, pinnacles, and ridgelines with blank expanses of open rock	white-throated swift (P)	Found in any vegetation type as long as there are cliffs with adequate nesting and roost sites present.	No impact. Cliffs providing nesting and roost sites occur adjacent to the project area in areas that will not be affected by the proposed action.	No change. Suitable habitat exists adjacent to the project area and in other nearby portions of the Santa Rita Mountains, but these areas will not be affected by the Proposed Action.
No specific vegetation types; found in steep canyons, cliffs, rocky outcrops, and ridgelines	canyon wren (P)	Found where topography provides appropriate substrates for foraging and nesting; steep slopes and canyons.	May be impacted. Suitable habitat (steep slopes and canyons) exists in portions of the project area.	Habitat would be removed or altered, but population-level impacts are not expected.

* "P" = species detected by University of Arizona (1977) or (1981) studies.

This IBA contains numerous species of concern as recognized by the USFS (USFWS Species of Concern, State of Arizona Wildlife of Special Concern, USFS Sensitive, etc.). These species include the following: northern goshawk, gray hawk, Mexican spotted owl, whiskered screech-owl, Montezuma quail, elegant trogon, Arizona woodpecker, violet-crowned hummingbird, Lucifer hummingbird, Costa's hummingbird, buff-breasted flycatcher, varied bunting, golden eagle, peregrine falcon, band-tailed pigeon, elf owl, Northern beardless-tyrannulet, greater pewee, gray flycatcher, Cordilleran flycatcher, Bell's vireo, bridled titmouse, Virginia's warbler, MacGillivray's warbler, Lucy's warbler, black-throated gray warbler, Grace's warbler, red-faced warbler, Cassin's sparrow, and Botteri's sparrow. Buff-collared nightjar, a rare species in Arizona, is also present. Many of these species of concern are either known to occur in the Rosemont project area, or the project area at least contains suitable habitat for these species.

The project area is located within the Santa Rita Mountains/Madera Canyon IBA; consequently, "Species of Conservation Status" would be affected by the Proposed Action. According to the University of Arizona (1977), there are 138 species of birds known to occur "on the Rosemont Area". The University of Arizona (1977) also notes that since riparian communities make up such a small percentage of the total land area, yet are the richest in (bird) species, they constitute the habitat most vulnerable to change at Rosemont, and the report states that impacts to these riparian communities should be mitigated.

6.0 OVERWINTERING AREAS

The project area provides overwintering habitat for a variety of bird species, including the red-naped sapsucker. However, according to National Audubon Society (2008), the project area has not been designated an important wintering area for birds. The Proposed Action is not expected to result in loss of important overwintering habitat or a trend toward the federal listing of any bird species as threatened or endangered.

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