Chino Mines Company
Exploratory Drilling West Stockpile Biological Evaluation

Prepared for:
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1. INTRODUCTION

Freeport-McMoRan Chino Mines Company (Chino) proposes to conduct exploratory drilling activities within their privately owned lands surrounding Chino Mine, in Grant County, New Mexico (**Figure 1**). Chino contracted WestLand Engineering and Environmental Services (WestLand) to prepare a Biological Evaluation (BE) for the proposed project. This BE is in support of the Part 3 Minimal Impact Exploration Operation Permit set forth by the New Mexico Energy, Minerals, and Natural Resources Department, Mining and Minerals Division. The exploratory drilling activities consist of 1 drill pad and approximately 255 feet (ft) of access road directly adjacent to the Chino Mine (the Buffered Project Area; **Figure 2**). To allow flexibility in final pad and road placement, this BE considers a Buffered Project Area consisting of 250 × 250-meter (820.21 × 820.21-foot) area around each proposed drill pad location, and a 40-meter-wide (131.23-foot-wide) corridor centered on the proposed road alignment for a total area of approximately 8.31 acres of private property.

This BE provides a screening analysis to determine the potential for the occurrence of special-status species and these species designated and/or proposed critical habitat in the Buffered Project Area. For the purposes of this report, special-status species include:

1) Species listed or proposed for listing as threatened or endangered under the Endangered Species Act (ESA) by the U.S. Fish and Wildlife Service (USFWS) that have the potential to occur within the Buffered Project Area as identified by the USFWS Information, Planning and Consultation (IPaC) tool (**Appendix A**).
2) Species protected under the Bald and Golden Eagle Protection Act (BGEPA).
3) Species designated as state threatened or endangered by the New Mexico Department of Game and Fish (NMDGF) as identified by the Environmental Review Tool (ERT) within 1 mile of the Buffered Project Area (**Appendix B**).

The following sections describe the Buffered Project Area location and environmental setting (**Section 2**), the methods used in determining the potential to occur (**Section 3**), the results of the special-status species screening and potential to occur determinations (**Section 4**), and list the references cited (**Section 5**). A representative selection of photographs of the Buffered Project Area are provided as **Appendix C**.

2. BUFFERED PROJECT AREA

The Buffered Project Area is an approximately 8.31-acre area of private land located in Grant County, New Mexico, located approximately 3.75 miles northeast of the town of Bayard, New Mexico, and 0.5 miles south of the Hanover, New Mexico. The Buffered Project Area is situated on the northwestern edge of the Santa Rita Mine pit at Chino Mine. The Buffered Project Area is located within portions of Section 28, Township 17 South, Range 12 West of the New Mexico Meridian (**Figures 1** and **2**).

2.1. PHYSIOGRAPHIC AND CLIMATIC

The Buffered Project Area lies within the Mexican Highland and Sacramento sections of the Basin and Range province of the Intermontane Plateaus (U.S. Department of Agriculture 2001). The Buffered Project Area is at the southeastern end of the Gila Mountains of southwestern New Mexico. More specifically, the Buffered Project Area is located at the southern end of the Continental Range, a range of mountains located north of Silver City and north and east of Bayard. The Buffered Project Area itself is flat with elevations ranging from approximately 6,200 to 6,400 ft above mean sea level (amsl).

Mean annual precipitation and mean annual temperatures in the vicinity of the Buffered Project Area were obtained from the Western Regional Climate Center (WRCC) based on data collected at the nearby National Climate Data Center (NCDC) station. The NSCD near For Bayard (Station ID 293265) is located approximately 3.3 miles east of the Buffered Project Area at 6,141 ft amsl in elevation. Climatic conditions in the region are characterized by mild summers (84.8°Fahrenheit [F] average maximum temperature and average minimum of 58.9°F in July, the hottest month) and mild winters (52.3°F average maximum temperature and 25.5°F in January, the coldest month) and low precipitation based on data recorded between 1897 and 2011 (Western Regional Climate Center 2026, accessed February 26, 2026). The average annual precipitation in the region is 15.61 inches (Western Regional Climate Center 2026, accessed February 26, 2026).

2.2. LAND USE AND MANAGEMENT

The Buffered Project Area lies within private lands directly adjacent to the Chino Mine (**Figure 2**). These lands are primarily undeveloped, with the exception of existing access roads in the immediate vicinity of and abutting the planned drill pad location (**Figure 2**).

Land use within the Buffered Project Area is limited due to its proximity to Chino Mine. In the immediate vicinity of the Buffered Project Area is New Mexico State Highway 356 running northeast-southwest 0.2 miles north and New Mexico State Highway 152 running east-west 0.4 miles north. An active railroad line runs 0.16 miles north of the Buffered Project Area, that connects Fierro, New Mexico Rail Town/Aside (the northern extent of the rail line) to the historic depot in Bayard, New Mexico (the southern extent of the rail line). There are a few scattered private residences adjacent to the northern portion of the Buffered Project Area in Wimsattville located roughly 0.4 miles northeast.

2.3. WATER RESOURCES

The National Wetlands Inventory (NWI) created by the USFWS have no mapped surface water features in the Buffered Project Area (U.S. Fish and Wildlife Service 2026, accessed February 26, 2026). No surface water was observed during the field investigation. The Buffered Project Area is located within the Outlet San Vicente Arroyo Watershed, Hydrologic Unit Code (HUC) 10 (1303020202).

In the vicinity, Hanover Creek is in a drainage roughly 0.13 miles north and is classified as an intermittent system. USFWS describes this site as containing water only parts of the year and is intermittently flooded during local rain events (U.S. Fish and Wildlife Service 2026, accessed February 26, 2026).

2.4. SOIL

The soils in the Buffered Project Area are mapped entirely as Santa Fe-Rock outcrop, 20 to 45 percent slopes. This soil unit consists of exposed bedrock and mixed alluvium and/or colluvium derived from igneous, metamorphic, and sedimentary rock. It is located on hill and mountain slopes. Where sediment is present, the typical profile is 0–2 inches gravelly sandy loam followed by 2–16 inches very gravelly clay loam atop bedrock (Soil Survey Staff 2026, accessed February 26, 2026).

2.5. VEGETATION

The biotic community in the Buffered Project Area is mapped as Great Basin Conifer Woodland (The Nature Conservancy 2012) and a field visit confirmed the classification. This vegetation community is characterized by alligator juniper (*Juniperus deppeana*), one-seed juniper (*Juniperus monosperma*), pine (*Pinus* sp.) with an understory of lycium species (*Lycium* sp.), shrub oaks (*Quercus* sp.), cholla (*Cylindropuntia* sp.), prickly pear (*Opuntia* sp.), Parry's agave (*Agave parryi*), and a variety of forbs and grasses.

3. METHODS

A screening analysis was completed to evaluate the potential for special-status species to occur within the Buffered Project Area. Special-status species were defined as species listed or proposed for listing, under the ESA by the USFWS that have the potential to occur within the Buffered Project Area as identified by the USFWS IPaC tool (**Appendix A**), species protected under the BGEPA, species designated as state threatened or endangered by the NMDGF (**Appendix B**). The determinations of potential for special-status species to occur within the Buffered Project Area were based on review of:

- The natural history and known geographical and elevational ranges of the species.
- Results of the NMDGF ERT of special-status animal species occurrences within 1 mile of the Buffered Project Area, included as **Appendix B**.
- Other occurrence records in published or grey literature, including citizen science data, unpublished data, and digitized museum records.
- The presence of suitable habitat based on available information and previously completed field evaluations.
- Data provided by the USFWS Critical Habitat Portal online mapping tool.
- Field reconnaissance was conducted on December 11 and 12 of 2025.

The criteria used to determine the potential of occurrence of each species included in this screening analysis are defined as follows:

Present: The species has been observed to occur within the Buffered Project Area; the Buffered Project Area is within the known range and distribution of the species; and habitat characteristics required by the species, including suitable vegetation type and elevational range, are present.

Possible: Except for eBird or other citizen science data and/or NMGFD ERT records, there are no known records of the species in the Buffered Project Area; the known, current distribution of the species includes the Buffered Project Area; and the required habitat characteristics of the species appear to be present in the Buffered Project Area. The Buffered Project Area includes suitable vegetation types and elevational ranges documented for the species. Given the uncertainty associated with species identification and accuracy of the location of observations from eBird and other citizen science databases, observations associated with citizen science databases are evidence that a species is possible within the Buffered Project Area.

Unlikely: The known, current distribution of the species does not include the Buffered Project Area but there may be eBird or other citizen science records; the distribution of the species is close enough such that the Buffered Project Area may be within the dispersal or foraging distance of the species, and they may show up as transients. The habitat characteristics required by the species may be present in the Buffered Project Area.

None: The Buffered Project Area is outside of the known distribution of the species, the habitat characteristics required by the species are not present, and the Buffered Project Area lacks suitable vegetation type and is outside the documented elevational range of the species.

4. POTENTIAL FOR SPECIAL-STATUS SPECIES TO OCCUR

Of the 13 special-status species evaluated, no species were assessed as having a potential to occur of **Present** or **Possible**, six (Mexican spotted owl, yellow-billed cuckoo, monarch butterfly, golden eagle, peregrine falcon, and gray vireo) were determined to be **Unlikely** during foraging or migration, but all special-status species were determined to have a potential of **None** for breeding. The special-status species evaluated include seven ESA-listed species identified by the USFWS IPaC tool (**Appendix A**), two BGEPA species, and four NMDGF state-listed threatened or endangered species (**Appendix B**). There is no designated or proposed critical habitat present in the Buffered Project Area. One additional species was addressed, federally endangered and NMDGF state endangered Mexican long-nosed bat (*Leptonycteris nivalis*), due to the presence of an environmental DNA (eDNA) record of the species in New Mexico over 30 miles from the Buffered Project Area (**Table 3**).This species was not included in the IPaC results or the NMDGF ERT results. The ESA-protected species are discussed further in **Section 4.1**, BGEPA species in **Section 4.2**, and NMDGF state listed species in **Section 4.3.**

4.1. ESA SPECIES SCREENING RESULTS

The IPaC screening identified seven ESA-protected species that may occur within the Buffered Project Area (**Appendix A**). No designated or proposed critical habitat was identified within the Buffered Project Area. The ESA-protected species evaluated include Chiricahua leopard frog (CLF; *Rana chiricahuensis*), western Distinct Population Segment (DPS) of yellow-billed cuckoo (YBC; *Coccyzus americanus*), northern Aplomado falcon (*Falco femoralis septentrionalis*), Mexican spotted owl (MSO; *Strix occidentalis lucida*), Chihuahua chub (*Gila nigrescens*), and monarch butterfly (*Danaus plexippus*). No species were determined to be **Present** or **Possible**, four were determined to be **Unlikely** during foraging or migration periods, and five were determined to have the potential to occur of **None** in the Buffered Project Area during breeding, foraging and migration. The basis for determination of each of the ESA protected special-status species' potential to occur within the Buffered Project Area is provided in **Table 1**.

4.2. BGEPA SPECIES SCREENING RESULTS

BGEPA species include golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*). The golden eagle was determined to have potential to occur of **None** for breeding and **Unlikely** during foraging or migration. The bald eagle was determined to have a potential to occur of **None** in the Buffered Project Area during breeding, foraging, and migration. The basis for determination of each of the BGEPA-listed special-status species' Potential to Occur within the Buffered Project Area is provided in **Table 2**.

Table 1. ESA-Listed Special-Status Species Potential to Occur in the Buffered Project Area

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
AMPHIBIANS					
Lithobates chiricahuensis Chiricahua leopard frog	Threatened (USFWS 2002, USFWS 2012a); designated critical habitat (USFWS 2012a).	Breeds in perennial to semi-permanent montane aquatic environments including cattle tanks, creeks, cienegas, pools, rivers, springs, lakes and reservoirs (USFWS 2011). Larvae are obligate on aquatic habitats whereas adults are primarily aquatic but also utilize terrestrial habitats (USFWS 2012a). May disperse from occupied habitat 1 mile overland, three miles along intermittent drainages, and 5 miles along permanent water courses, or some combination thereof (USFWS 2012a). Elevation: 3,200–8,890 ft (USFWS BISON-M 2022a, 2012a).	Occurs in Arizona and New Mexico, U.S. and Sonora, Chihuahua and Durango, Mexico (USFWS 2012a).	This species distribution occurs in the southwestern portion of the state throughout the Gila National Forest as well as the Peloncillo, Animas, Big Hatchet, and Alamo Hueco Mountains (BISON-M 2022a). Based on work conducted between 1994 and 1999, 41 sites containing this species were recorded; 33 were located north of Interstate ten and eight were located in southwest New Mexico (USFWS 2002). However, surveys conducted in 2000 found only eight of 34 sites from the original 41 to have populations of this species (USFWS 2002).	**None** The Buffered Project Area does not contain suitable perennial to semi-perennial aquatic habitat for this species and the drainages in the vicinity are greater than their maximum dispersal of 5 miles from occupied sites along permanent water courses. The nearest museum record (1996) is in the southern portion of Martin Canyon roughly 6 miles south and along the Mimbres River, an aquatic system in which this species is believed to be extant (U.S. Fish and Wildlife Service 2002), located over seven miles northwest (iDigBio 2026, accessed February 27, 2026). There is no designated critical habitat for this species in the Buffered Project Area.

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
BIRDS					
Coccyzus americanus (western Distinct Population Segment) Yellow-billed cuckoo	Threatened (USFWS 2014a); designated critical habitat (USFWS 2021).	Most commonly found in lowland riparian woodlands where Fremont cottonwood, willow, velvet ash, Arizona walnut, mesquite, and tamarisk are dominant (USFWS 2013). Also utilizes drier woodlands including mesquite bosques, drainages in desert scrub and desert grassland with a tree component, and Madrean evergreen woodlands in perennial, intermittent or ephemeral drainages (USFWS 2020a). They migrate along riparian corridors and surrounding upland vegetation (Hughes 2020). Elevation: Typically below 6,600 ft (AGFD 2022c) but they have been detected as high as 8,000 ft (BISON-M 2025e).	This species is a long-distance neotropical migrant (Hughes 2020). At the species level, breeds throughout temperate North America south to Mexico and the Greater Antilles (Hughes 2020). The western DPS breeds west of the Continental Divide and the watershed boundary between the Rio Grande and Pecos River and the Chihuahuan Desert. The USFWS considers the historical breeding range to include southern British Columbia, Canada and in Washington, Idaho, Nevada, Oregon, Utah, western Colorado, southwestern Wyoming, California, Arizona, western New Mexico, and Texas, U.S. Breeding range extends into the Cape Region of Baja California Sur, Sonora, Sinaloa, western Chihuahua and northwestern Durango, Mexico (USFWS 2014a). Winters in South America, east of the Andes and typically south of the Amazon Basin in southern Brazil, Paraguay, Uruguay, eastern Bolivia and northern Argentina (USFWS 2014a).	Occurs throughout much of the state where suitable habitat is present and is considered rare to fairly common. Breeding areas include the San Juan, Dry Cimarron, Rio Grande, Pecos, Mora, Canadian, San Francisco, and Gila valleys (BISON-M 2025e). Found in most counties in New Mexico except along the eastern portions (BISON-M 2025e).	**None:** Breeding **Unlikely:** Forage or Migration The Buffered Project Area contains potentially suitable habitat woodlands in drainages but lacks lowland riparian woodland featuring Freemont cottonwood, willow, velvet ash, Arizona walnut, mesquite, and tamarisk in which this species is most commonly found. The trees observed in the Buffered Project Area consist of juniper and pine in a previously disturbed area. There are no NMGFD ERT records within 1 mile (**Appendix B**) and the nearest eBird records are along the Mimbres River near San Lorenzo roughly 8.5 miles west (eBird 2026, accessed February 27, 2026). This species is not expected to breed in the Buffered Project Area but may utilize the site as a migratory stopover though unlikely due to its location in a previously disturbed area and small drainages. There is no designated critical habitat for this species in the Buffered Project Area.
Falco femoralis septentrionalis Northern aplomado falcon	Endangered (USFWS 1986); no critical habitat; non-essential experimental population (USFWS 2006). NMDGF Endangered (BISON-M 2024a).	Within the U.S., this species uses coastal prairies, desert grasslands, oak woodlands and riparian gallery forest (Keddy-Hector, Pyle, and Pattern 2017). They have historically occurred in relatively flat and open habitats (USFWS 2014b). Builds nests in large trees, cliffs, utility poles, artificial platforms or on the ground when elevated nest sites are not available (Keddy-Hector, Pyle, and Pattern 2017). This species is expected to use similar habitat year-round (Keddy-Hector, Pyle, and Pattern 2017). Elevation: In southwestern U.S., most common from 3,300–4,900 ft (AGFD 2001b) but have been observed as high as 6,000 ft in New Mexico (BISON-M 2024a).	This species is mostly non-migratory, although local nomadic movement may occur (Keddy-Hector, Pyle, and Pattern 2017). The *septentrionalis* subspecies occurs in New Mexico and Texas, U.S. and the Mexican states of Chihuahua, northwestern Chiapas, western Campeche, Oaxaca, San Luis Potosi, Tabasco, and Vera Cruz (USFWS BISON-M 2024a, 2014b).	Occasional in the southern portion of the state; rare and local, mainly in grassland-shrubland areas at lower elevations (BISON-M 2024a).	**None** The Buffered Project Area is outside of the current range of this species in New Mexico and lacks appropriate habitat of coastal prairies, desert grassland, oak woodlands, and riparian gallery forest habitats. The nearest eBird record (2011) is near along Interstate 10 near Demming located roughly 41 miles south (eBird 2026, accessed February 27, 2026). NMDGF ERT has a record of this species within 1 mile of the Buffered Project Area (**Appendix B**). There is a museum record of this species at Fort Bayard from 1875 (iDigBio 2026, accessed February 27, 2026) which is likely the record in the ERT system.

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
Strix occidentalis lucida Mexican spotted owl	Threatened (USFWS 1993); designated critical habitat (USFWS 2004).	Prefers old-growth mixed conifer or pine-oak forests, or such forests with complex structure. Also uses narrow canyons with cliffs and conifer or riparian woodlands (Gutiérrez, Franklin, and Lahaye 2020). In Arizona, canyon habitats typically contain Madrean evergreen oak or Madrean pine-oak woodlands (Wise-Gervais 2005). In forested areas, nests in large trees whereas in canyon habitats, will nest in trees, caves or on rocky ledges (USFWS 2012b). Primarily forages for rodents in a range of forest or woodland habitats, but diet also includes lagomorphs, bats, birds, reptiles and arthropods (AGFD 2023a, Gutiérrez, Franklin, and Lahaye 2020, USFWS 2012b). This species has large home ranges, with single owls in Arizona utilizing an average of 1,600 acres and pairs an average of 2,000 acres (AGFD 2023a). Migration is variable within areas and among years (AGFD 2023a, Gutiérrez, Franklin, and Lahaye 2020). When winter movements do occur, this species may move locally, primarily to lower elevations and more open sites with pinyon pine-juniper woodlands, open mountain shrub habitat, conifer forests or deciduous riparian trees (AGFD 2023a, Gutiérrez, Franklin, and Lahaye 2020). Elevation: 2,720–10,000 ft (AGFD 2023a, BISON-M 2021c).	This species is primarily non-migratory, although there may be some short distance (12 to 30 miles) or altitudinal movement (Gutiérrez, Franklin, and Lahaye 2020). Occurs patchily in Colorado, Utah, Arizona, New Mexico and western Texas. Range extends from the international border southward along the Sierra Madre Occidental and Oriental to Michoacán (Gutiérrez, Franklin, and Lahaye 2020, USFWS 2012b).	Occurs in summer and winter throughout the state, except for in the eastern plains (BISON-M 2021c). They are more abundant in the south. Some of the larger populations are found in the Gila National Forest and Sacramento Mountains (BISON-M 2021c, Ganey et al. 2014, New Mexico Avian Conservation Partners 2017).	**None:** Breeding **Unlikely:** Forage or Migration While the Buffered Project Area does not contain suitable nesting habitat for this species in the form of old-growth mixed conifer or pine-oak forests, narrow canyons with cliffs, or conifer or riparian woodlands, it is within the current and historic range of this species, and there are detections of this species in the Gila National Forest(eBird 2026, accessed February 27, 2026), which is approximately 5 miles from the Buffered Project Area. It is possible, though unlikely, that this species would use the Buffered Project Area as foraging habitat, but they are not expected to breed in the site. There is no designated critical habitat for this species in the Buffered Project Area.
FISH					
Gila nigrescens Chihuahua chub	Threatened (USFWS 1983); Proposed critical habitat (USFWS 1980).	Inhabits deep pools with undercut banks and other forms of cover such as downed trees and overhanging vegetation (BISON-M 2021a). These stream are typically small to medium in size (BISON-M 2021a).	Southern New Mexico and the state of Chihuahua, Mexico (BISON-M 2021a).	This species historically within the Mimbres River from Grant County to Luna County but is currently confined to Moreno Spring and an approximately 15 kilometer stretch of the Mimbres River (BISON-M 2021a; Accessed December 29, 2022). This stretch begins at the confluence of Allie Canyon (BISON-M 2021a). A population was discovered in 2008 within the Mimbres River near Cooney Place and Monument Canyon (Osborne 2019).	**None** The Buffered Project Area does not contain suitable habitat of perennial water and is outside the known restricted range. The nearest museum records are along the Mimbres River 7 miles east (iDigBio 2026, accessed February 27, 2026) where this species is known to occur. There is no proposed critical habitat for this species in the Buffered Project Area.

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
INSECTS					
Danaus plexippus plexippus Monarch butterfly	Proposed Threatened with designated critical habitat (USFWS 2024)	Monarch caterpillars feed exclusively on plants in the subfamily *Asclepiadoideae* (milkweed) and adults forage for nectar on a wide variety of flowers. This species can be found wherever milkweed occurs. Overwintering populations use the leaves, branches and trunks of large trees within forested groves. In California, both native tree species and eucalyptus trees are utilized (Jepsen et al. 2015). Elevation: In New Mexico, prefer elevations below 8,000 feet (BISON-M 2025c).	*D. plexippus* occurs in North America, Central America, the Caribbean south to South America, Hawaii, Australia, some Pacific Islands, parts of Asia, Africa and southern Europe. Populations outside of the Americas may be non-native (Zhan et al. 2014). Most populations of the *plexippus* subspecies are migratory and breed in southern-most portions of all Canadian provinces except Newfoundland and Labrador, the conterminous U.S. states and the Mexican states of Baja California, Chihuahua, Coahuila, Nuevo Léon, Sonora and Tamaulipas. The wintering range of migratory populations includes coastal California and southern Florida, U.S. and the Mexican states of Baja California, Mexico and Michoacán (Jepsen et al. 2015).	Breeding and migratory populations occur throughout the state (BISON-M 2025c). Some adults overwinter in New Mexico in areas where food resources are abundant (USFWS 2020c).	**None:** Breeding **Unlikely:** Forage or Migration The Buffered Project Area is within the known range of this species. However, there are no HMDGF ERT records within 1 mile of the Buffered Project Area (**Appendix B**) and milkweed was not observed during the field investigation. The nearest museum records of monarch are near Silver City from 1971 roughly 10 miles west of the Buffered Project Area (The Xerces Society for Invertebrate Conservation 2026, accessed March 2, 2026). This species has potential to forage or move through, although unlikely, the Buffered Project Area but is not expected to breed in the site.

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
MAMMALS					
Canis lupus baileyi Mexican gray wolf	Endangered (USFWS 1975, USFWS 2015); non-essential experimental population (USFWS 1998, USFWS 2015); non-essential experimental population remanded but remains in place until a new rule is finalized (Ctr. for Biological Diversity v. Jewell 2018).	Occurs in sparsely to densely forested mountainous terrain or adjacent grasslands where prey is abundant. Prey species include cervids, peccaries, lagomorphs and rodents (USFWS 2015). Elevation: 3,000–12,000 ft in Arizona (AGFD 2001a) and roughly 4,000 to 9,000 ft in New Mexico (BISON-M 2025b).	The *baileyi* subspecies occurs in Arizona and New(BISON-M 2025b) Mexico, U.S. and Sonora, Mexico (USFWS 2015).	The non-essential experimental population boundaries are south of I-40 and is divided into management zones. Zone 1: Initial releases and translocations can occur into. Zone 2: Areas outside of Zone 1, south of I-40 and generally west of Highway 285. Initial releases allowed on private and tribal land with approved management agreements. Translocations and release of pups less than 5-months old allowed on Federal lands. Zone 3: Areas south of I-40 and east of Highway 285 to the south of Highways 81, 146, 26, 25, 70, 54,506, and 24, and south of I-10. Within Zone 3 no releases or translocations are allowed but can be occupied by naturally dispersing individuals (USFWS 2015). As the end of May 2019, there were known packs or packs believed to be located in 14 New Mexico counties, including Bernalillo, Catron, Cibola, Doña Ana, Grant, Hidalgo, Lincoln, Luna, McKinley, Otero, Sierra, Socorro, Torrance, and Valencia (USFWS BISON-M 2025b, 2020b). The Mexican gray wolf population in New Mexico is expanding in both number and range. At the end 2013 there was a combined total of 83 known wolves in Arizona and New Mexico (USFWS 2015). At the end of 2018 there were a total 131 known wolves (Mexican Wolf Interagency Field Team 2019). At the end of 2021 and the beginning of 2022, there was a combined total of 196 known wolves in Arizona and New Mexico (USFWS 2022).	**None** The Buffered Project Area is outside of the Zone 1 management zone and there are no NMDGF ERT records within 1 mile (**Appendix B**). Due to the low population density of this species, the developed nature of the Buffered Project Area, and lack of NMDGF ERT records within 1 mile, it is not anticipated that a Mexican gray wolf will occur in the Buffered Project Area. If this species occurred within the Buffered Project Area, it would be considered part of the non-essential experimental population. Because the non-essential experimental population is, by definition, not essential to the continued existence of the species, the effects of proposed actions on the non-essential experimental population will generally not rise to the level of jeopardizing the continued existence of the species.

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
Leptonycteris nivalis Mexican long-nosed bat	Endangered (USFWS 1988) NM Endangered (BISON-M 2024b)	This species is nomadic utilizing peak food resources as they travel through foraging areas (U.S. Fish and Wildlife Service 1994). They forage on fruits, pollen and nectar of 21 different plants representing 10 families (Hensley and Wilkins 1988, Sanchez and Medellin 2007). They have been known to foraging bouts up to 12-19 miles one-way each night in New Mexico and 8-19 round-trip miles in Texas (USFWS 2018). Population densities are correlated with abundance of agave flowering at large spatial scales (Moreno-Valdez, Honeycutt, and Grant 2004). They roost in cavern habitats including caves and abandoned underground mines and occasionally in culverts, building, and hollow trees (BISON-M 2024b). Elevation: 1,500 to 9,300 ft in northern Mexico and 3,281 and 7,546 in Northern New Mexico (BISON-M 2024b).	Species spends winters in central Mexico and summers in southwestern Arizona. The northern distribution is in southwestern New Mexico and Texas (Hensley and Wilkins 1988). Populations of MLNB are present in southern New Mexico and Texas throughout the summer months in variable densities and are assumed to winter in Mexico. MLNB migration patterns and timing correspond to suitable migration season and sufficient energy resources (Moreno (Moreno-Valdez, Grant, and Honeycutt 2000). An environmental DNA (eDNA) record at a hummingbird feeder in 2025 expanded the known range into southeastern Arizona extending its northern range (Bat Conservation International 2025).	Found in the southwest portion of the state including in the Animas, Big Hatchet, Guadalupe, and Peloncillo mountains (BISON-M 2024b). A known roost is located in a cave in the “bootheel” region. No roosts have been documented north of Interstate 10 (Diamond, Priokowski, and Ingraldi 2013). The exact timing of arrival in New Mexico varies with weather patterns and forage availability.	**None** = Roosting **Unlikely** = Foraging The Buffered Project Area does not contain appropriate roosting habitat of underground cavern systems and has limited foraging availability of agave nearby. There are no NMDGF ERT records within 1 mile (**Appendix B**) and the species was not included in the IPaC query (**Appendix A**). However, a recent environmental DNA (eDNA) records provided to WestLand by the Bureau of Land Management (BLM) at sites within 30 miles of the Chino Mine suggests this species has limited potential to occur in the Buffered Project Area due to its wide-raging foraging distance (up to 19 miles from known roosts). This species has no potential to roost in the Buffered Project. They have some potential to forage on the few agave in the Buffered Project Area and vicinity, though unlikely, due to the limited amount of agave present and the disturbed nature of the site.

Table 2. BGEPA-Listed Special-Status Species Potential to Occur in the Buffered Project Area

Species Name	Federal Status	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
Aquila chrysaetos Golden eagle	Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)	Range-wide, breeds in a wide variety of open habitats, with nests typically on cliffs, and avoids heavily forested areas (Katzner et al. 2020). Nest on cliffs near open habitats and are known to use mixed shrub, pinyon/juniper, juniper in McKinley County of New Mexico (BISON-M 2021b). Also utilize grasslands, semidesert-grassland-shrub, sagebrush-grassland pinyon-juniper woodland, ponderosa pine Douglas fir forest (BISON-M 2021b). They are known to forage within 4.4 miles of the nest (Tesky 1994), generally in open habitats where prey is available (Katzner et al. 2020). Primarily feeds on small mammals (greater than 80% of prey items) but also consumes birds, reptiles and fish (Katzner et al. 2020). In the western U.S. average territory size ranges from 22 to 55 square miles (AGFD 2002). Elevation: 2,000 to 7,500 feet (BISON-M 2021b).	This species is a short to medium-distance partial migrant with a Holarctic distribution (Katzner et al. 2020). In North America, primarily breeds in western portion of the continent from Alaska to central Mexico. Northernmost populations are typically migratory. Year-round and non-breeding populations occur from central Saskatchewan to British Columbia, Canada and south throughout its range and sparsely in the eastern U.S. (Katzner et al. 2020).	Breed locally in suitable habitat throughout the state (Katzner et al. 2020, Parmeter, Neville, and Emkalns 2002).	**None:** Breeding **Unlikely:** Forage or Migration The Buffered Project Area does not contain appropriate nesting habitat (cliffs or large snags) and there are no NMDGF ERT records within 1 mile (**Appendix B**). The nearest eBird record is on near Fort Bayard located roughly 3.3 miles west in January 2020 (eBird 2026, accessed March 2, 2026). Though there is not suitable nesting habitat for this species in the Buffered Project Area, it does contain potentially suitable open foraging habitat. This species has potential, though unlikely, to forage or migrate through the Buffered Project Area but is not expected to spend time in the site due to the disturbed nature and small size of the property.
Haliaeetus leucocephalus Bald eagle	Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c)	Breeding is concentrated in coastal areas, along rivers, lakes or reservoirs. Typically breeds in forested areas with edge habitat within 1.3 miles of aquatic habitats suitable for foraging. Prefers areas of shallow water and shorelines for fishing and hunting wide variety of waterfowl, and small aquatic and terrestrial mammals. Fish are preferred prey, but carrion is used extensively whenever encountered. Nests away from human disturbance in large trees and rarely on cliff ledges or on the ground when trees are absent. Winters primarily in coastal areas or along major river systems with adequate prey availability and large trees for perching (Buehler 2022). Elevation: In Arizona, 460–7,930 ft (AGFD 2022b).	Migratory behavior varies among populations and age groups (Buehler 2022). Breeds south of the tundra throughout Canada and the U.S., excluding Hawaii. Additionally, small breeding populations occur in Baja California, Sonora and Chihuahua, Mexico (Buehler 2022). Winter range appears to be expanding as populations increase in size. Most populations are year-round residents with only the northern most populations in Alaska, U.S. and Canada withdrawing southward or to coastal areas (Fink et al. 2018).	Are present casually to occasionally in summer, but they migrate and winter almost statewide, although there is limited breeding in New Mexico (Buehler 2020).	**None** The Buffered Project Area does not contain appropriate nesting habitat (coastal areas, rivers, lakes, or reservoirs in forested areas), or foraging habitat (water sources), is in a disturbed area in which this species I known to avoid, and there are no NMDGF ERT records within 1 mile (**Appendix B**). The nearest eBird record is on near Fort Bayard located roughly 3.3 miles west in November 2020 (eBird 2026, accessed March 2, 2026).

4.3. NEW MEXICO STATE-LISTED SPECIES

The New Mexico ERT online review tool was used to generate a list of New Mexico state-listed species, including animal species designated as state threatened or endangered by the NMDGF as potentially occurring within 1 mile of the Buffered Project Area (**Appendix B**). Any state-listed species on the ERT list that were already addressed in ESA table or the BGEPA table were not included in this section to reduce duplication. This includes Northern Aplomado falcon and Mexican long-nosed bat discussed in **Section 4.1**. The New Mexico state threatened or endangered species evaluated include peregrine falcon (*Falco peregrinus*), gray vireo (*Vireo vicinior*), spotted bat (*Euderma maculatum*), and Gila monster (*Heloderma suspectum*). The potential for these four special-status animal species unique to the ERT list determined to occur within 1 mile of the Buffered Project Area are summarized below. The basis for determination of each of the NMDGF-listed special-status species' potential to occur within the Buffered Project Area is provided in **Table 3**.

Table 3. NMDGF-Listed Special-Status Species Potential to Occur in the Buffered Project Area

Species Name	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
BIRDS				
Vireo vicinior Gray vireo NM Threatened (BISON-M 2025a).	Preferred breeding habitat includes pinyon pine-juniper woodlands, oak scrub and chaparral in arid mountain ranges and high plains (Barlow, Leckie, and Baril 2020). In Arizona and New Mexico, occurs in open woodlands/shrublands including chaparral-juniper and dwarf conifer forests, as well as sites with Graves oak, mixed piñon, and madrone (Barlow, Leckie, and Baril 2020, BISON-M 2017a). Occasionally occurs in chaparral dominated slopes and Madrean evergreen oak woodlands with only scattered pinyon pine or junipers (Corman 2005). Habitat used during migration is likely similar to the breeding and wintering habitats. In their wintering range, this species uses Chihuahuan desertscrub and lowland riparian areas with willow and cottonwood near springs or intermittent streams (Barlow, Leckie, and Baril 2020). Elevation: Typically breeds 3,500–6,800 ft (Corman 2005), but my forage and breed up to 7,000 ft in New Mexico (BISON-M 2017a) but winters much lower (Barlow, Leckie, and Baril 2020).	A short-distance migrant (Barlow, Leckie, and Baril 2020). Breeds from central and southern Utah and western Colorado, south to southern Nevada, Arizona, and New Mexico, U.S. Isolated populations also breed in southern California, Baja California, western Texas, U.S. and in Mexico in northwestern Coahuila and possibly north-central Durango. Wintering range is poorly known, but this species has been reported from south-central Arizona, western Sonora, Baja California Sur and western Texas (Barlow, Leckie, and Baril 2020).	Rare summer residents of the Gila National Forest and only in the state during the warmer months. Has been recorded in central and western counties east to Pecos, western San Miguel County, and Gran Quivara National Monument, eastern Socorro County, the Silver City area, the foothills of the Magdalena, Manzanita, and Sandia mountains and in the southeast in the Guadalupe Mountains and in eastern Otero County (BISON-M 2017a).	**None** The Buffered Project Area contains suitable habitat for this species (pine-juniper woodlands) and there are NMDGF ERT records within 1 mile (**Appendix B**). There are no eBird records in the Buffered Project Area and the nearest eBird record is along the Mimbres River roughly 7 miles east in 2016 (eBird 2026, accessed March 2, 2026). This species is considered rare in Gila National Forest, and it is therefore unlikely to nest in the Buffered Project Area and is not expected to forage or migrate through the site due to the disturbed nature of the area and small size on the landscape.

Species Name	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
Falco peregrinus anatum American peregrine falcon NM Threatened (BISON-M 2024a).	Breeds in a wide range of open habitats (White et al. 2002). Prefer steep cliffs that overlook woodlands and riparian areas. Habitat selection is mainly driven by the abundance of prey (birds and occasionally bats). They dive from cliffs to ambush prey. Usually forages within 9 miles of the nest site, but foraging distances of 15 miles are common (Luensmann 2010). Can be found in less optimal habitats, such as small, broken cliffs or cliffs in xeric areas, when preferred habitat is not available. Will roost on tall buildings when prey is abundant (AGFD 2022a). In New Mexico, this species is most often found breeding in rocky, steep cliff areas near water (BISON-M 2022b). Migratory and overwintering habitats are diverse and include similar habitats to those used during breeding and areas devoid of cliffs (White et al. 2002). Elevation: In New Mexico, 3,500 to 9,000 feet but prefer 6,500 to 8,599 feet (BISON-M 2022b).	*F. peregrinus* occurs on every continent expect Antarctica (White et al. 2002). The *anatum* subspecies is a partial migrant and breeds throughout North America south of the tundra, excluding coastal Pacific Northwest, to northern Mexico (White et al. 2002). Winter range includes portions of the breeding range where prey is abundant year-round and extends south through Central America and South America through Chile (AGFD 2022a, White et al. 2002).	They pass through the state during migration from March-May and there are isolated breeding records throughout the state (White et al. 2002).	**None:** Breeding **Unlikely:** Forage or Migration The Buffered Project Area lacks suitable nesting habitat (cliffs) but may contain appropriate foraging or migration habitat. There are NMDGF ERT records within 1 mile (**Appendix B**). There are no eBird records within the Buffered Project Area and the nearest is in Duncan located 59 miles west (eBird 2026, accessed March 2, 2026) and the nearest museum record is near Silver City from 2005 roughly 12 miles west (iDigBio 2026, accessed March 2, 2026). This species is not expected to nest in the Buffered Project Area but has some potential to forage or migrate through the property though unlikely due to the small size on the landscape and the disturbed nature of the site.
MAMMALS				
Euderma maculatum Spotted bat NM Threatened (BISON-M 2017b).	Occurs in a wide-range of vegetation types including desertscrub, pinyon-juniper woodlands, ponderosa pine forests, mixed conifer forest, canyon bottoms, riparian areas, fields, pastures, and sub-alpine meadows. Roost in cracks and crevices of rock cliffs and in caves. They are generally solitary but may roost or hibernate in small groups. Foraging ranges may be large and up to 25 miles from their roost sites primarily over standing water and over high meadows (BISON-M 2017b). Primarily consumes moths. Are rarely caught in nets, potentially due to rarity, high flight patterns or sensitivity to light and sound. This species is most commonly captured near large, open areas of water (BISON-M 2017b). It is unknown if this species is migratory. In Arizona, they appear active year-round (Luce, Chambers, and Herder 2005). Elevation: In New Mexico, 3,000–11,000 ft and between 6,070-8,038 ft in Gila National Forest (BISON-M 2017b).	Occurs in British Columbia, Canada and the U.S. states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Washington, and Wyoming. Range extends south from U.S. populations to Durango and Queretaro, Mexico (AGFD 2023b, Hammerson 2019).	Documented from Bernalillo, Catron, Cibola, Doña Ana, Eddy, Grant, Lincoln, Los Alamos, Otero, Rio Arriba, Sandoval, San Juan, Santa Fe, Valencia, and Socorro counties. In 2006, this species was observed in Grant County at the following locations: near the Gila River at Lichty Farm, near Buckhorn, Big Burro Mountains, and near Santa Fe at Black Canyon Campground (BISON-M 2017b).	**None** The Buffered Project Area lacks suitable roosting habitat (rock cliffs with crevices) and does not contain appropriate foraging habitat (standing water or high meadows). There are NMDGF ERT records within 1 mile of the Buffered Project Area (**Appendix B**). The nearest museum records are in Gila National Forest in Catron County 47 miles northwest from 1960 and 1963 (iDigBio 2026, accessed March 2, 2026). This species is not expected to roost in the Buffered Project Area or forage in the site due to lack of appropriate habitats.

Species Name	Known Suitable Habitat	Total Range	Distribution in New Mexico	Potential to Occur
REPTILES				
Heloderma suspectum Gila monster NM Endangered (BISON-M 2025d).	Inhabit desert and mesquite-grassland, but also pine- oak forest, tropical deciduous forest, and thorn forest. It is usually found in rocky foothill regions and avoids open flats. It typically inhabits the lower slopes of mountains and nearby outwash plains, especially in canyons and arroyos where water is at least periodically present (Beck 2009). In some areas, they also frequent irrigated farmlands that adjoin those habitat types. Cover in such areas often includes boulders, rock crevices, downed vegetation, and litter (AGFD 2013, BISON-M 2025d). They spend the majority of their time in shelters (BISON-M 2025d). Elevation: In New Mexico, 3,800-6,400 ft (Beck 2009, BISON-M 2025d).	Occupies the southern areas of Utah, Nevada, California, and New Mexico. The most southern population lives in the Sonoran desert of Mexico near the towns of Alamos Guayamas and Ortiz (AGFD 2013, Beck 2009).	Peripheral in the state, reaching the eastern edge of its range in the southwest, where it is known from Hidalgo, Grant, Luna and perhaps Doña Ana counties (BISON-M 2025d). Most common at the Redrock Wildlife Area on the Gila River west of the Big Burro Mountains (BISON-M 2025d).	**None** The Buffered Project Area lacks appropriate habitat (rocky areas with cover) and they are known to avoid open flats. While there are NDMGF ERT records within 1 mile (**Appendix B**) the nearest museum record is near Silver City roughly 12 miles west (iDigBio 2026). This species is not expected to occur on the site due to the lack of appropriate habitat and disturbed nature of the property.

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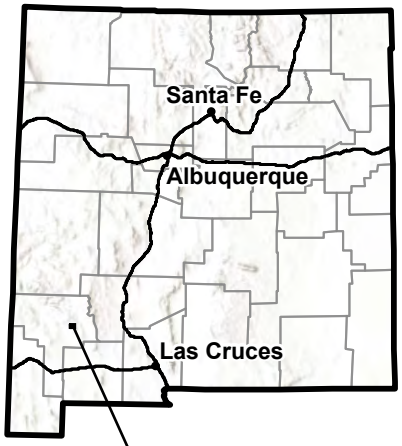
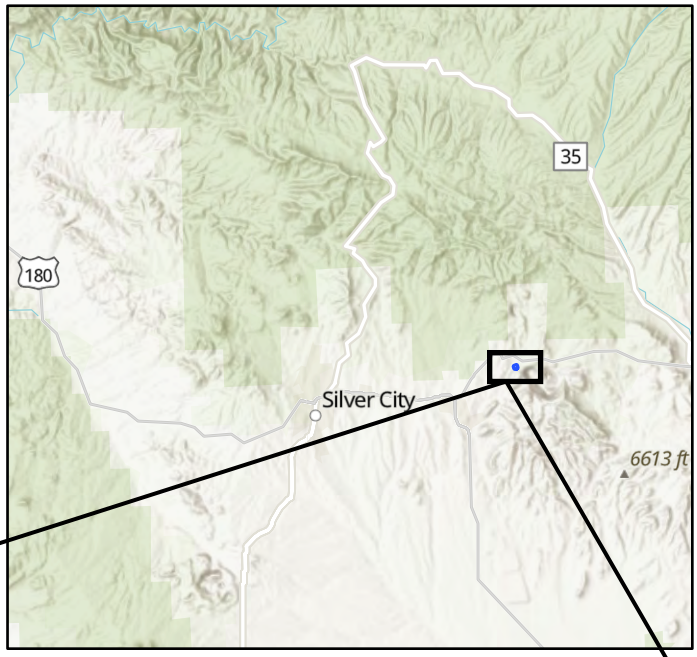
FIGURES

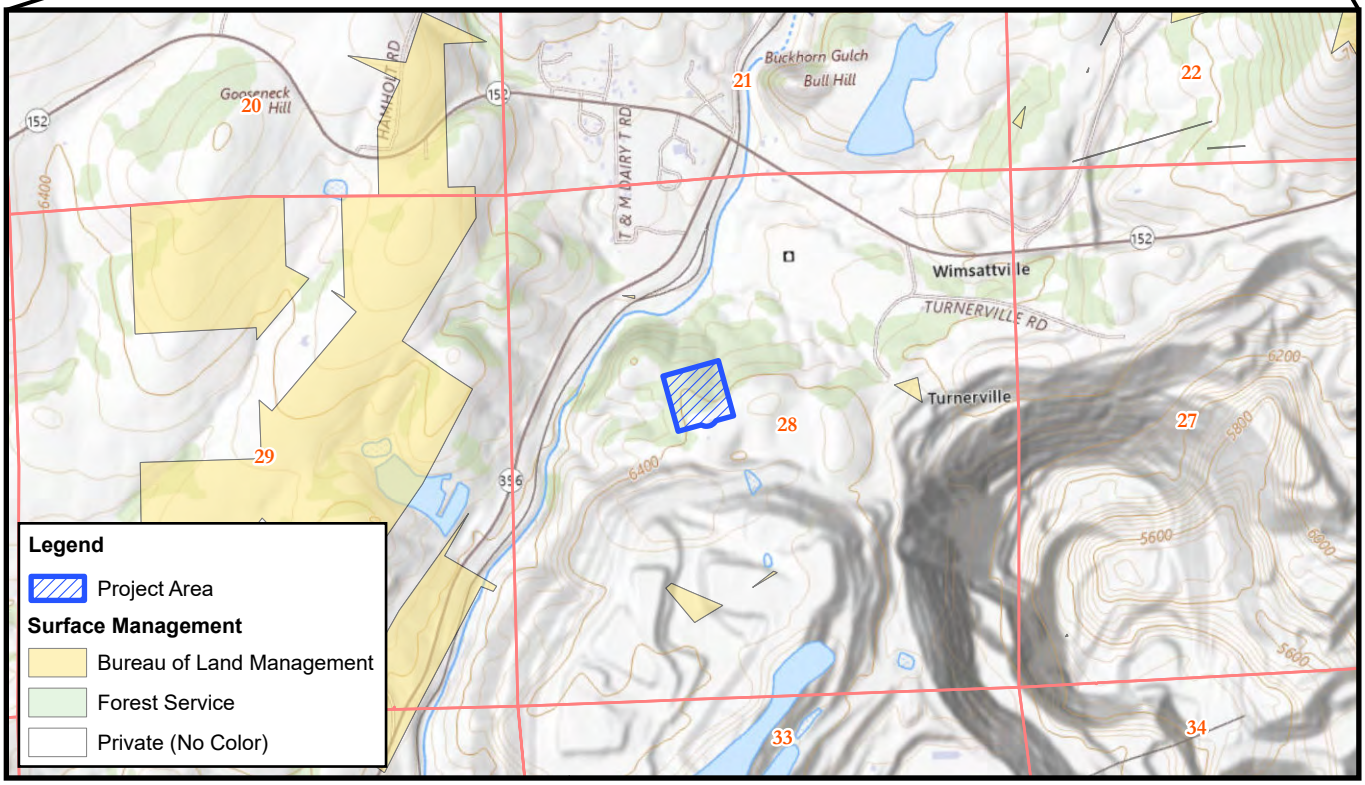
NEW MEXICO



PROJECT VICINITY



Approximate Scale 1 inch equals 10 miles



T17S, R12W, a Portion of Section 28,
Grant County, New Mexico
Projection: NAD 1983 UTM Zone 12N
Surface Management: BLM Map Service 2026
Image Source: ArcGIS Online, World Topo Map,
and USGS TNM Topo Base Map

N

0 1,000 2,000 Feet

0 300 600 Meters

WestLand Engineering & Environmental Services

CHINO
West Stockpile Project
Biological Evaluation

VICINITY MAP
Figure 1

T17S, R12W, a Portion of Section 28,
Grant County, New Mexico
Projection: NAD 1983 UTM Zone 12N
Image Source: Vantor 7/24/2024

CHINO
West Stockpile Project
Biological Evaluation

AERIAL OVERVIEW
Figure 2

WestLand Engineering & Environmental Services

N

0 250 500 Feet

0 80 160 Meters

APPENDIX A
U.S. Fish and Wildlife Service Information for Planning and Consultation Online Query Report

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Grant County, New Mexico

Local office

New Mexico Ecological Services Field Office

(505) 346-2525
(505) 346-2542

2105 Osuna Road Ne
Albuquerque, NM 87113-1001

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Endangered species

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

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

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

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

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

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

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

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

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

Mammals

NAME	STATUS
Mexican Wolf Canis lupus baileyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3916	EXPN

Birds

NAME	STATUS
Mexican Spotted Owl Strix occidentalis lucida Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Northern Aplomado Falcon Falco femoralis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1923	EXPN
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

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Amphibians

NAME	STATUS
Chiricahua Leopard Frog Rana chiricahuensis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1516	Threatened

Fishes

NAME	STATUS
Chihuahua Chub Gila nigrescens Wherever found There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/7156	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

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

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

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

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

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Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

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

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

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If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Broad-tailed Hummingbird Selasphorus platycercus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 25 to Aug 21

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

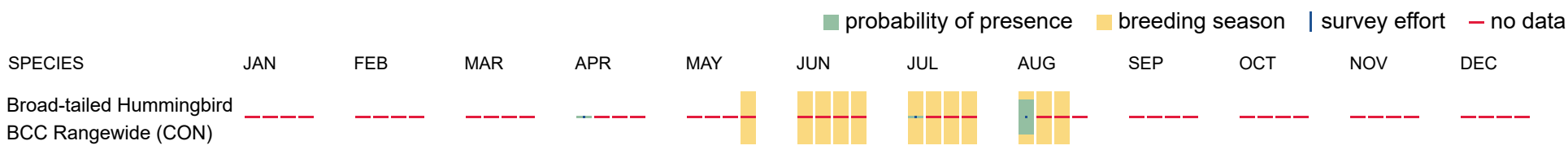
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

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

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



Migratory Bird FAQs

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

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Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

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

Proper interpretation and use of your migratory bird report

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

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minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

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

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

NOT FOR CONSULTATION

APPENDIX B
New Mexico New Mexico Department of Game and Fish Environmental Review Tool Online Query Report

PROJECT INFORMATION

Project Title:	West Stockpile Exploratory Drilling
Project Type:	MINING, EXPLORATION, EXPLORATION-DISPERSED OR PREVIOUSLY UNDISTURBED AREAS
Latitude/Longitude (DMS):	32.802515 / -108.092401
County(s):	GRANT
Project Description:	Exploratory drilling in an area previously disturbed. One drill pad and small access road.

REQUESTOR INFORMATION

Project Organization:	
Contact Name:	Gabrielle Diamond
Email Address:	gdiamond@westlandresources.com
Organization:	WestLand Resources Engineering and Environmental Services Inc
Address:	4001 E Paradise Falls Drive, Tucson AZ 85712
Phone:	5202069585

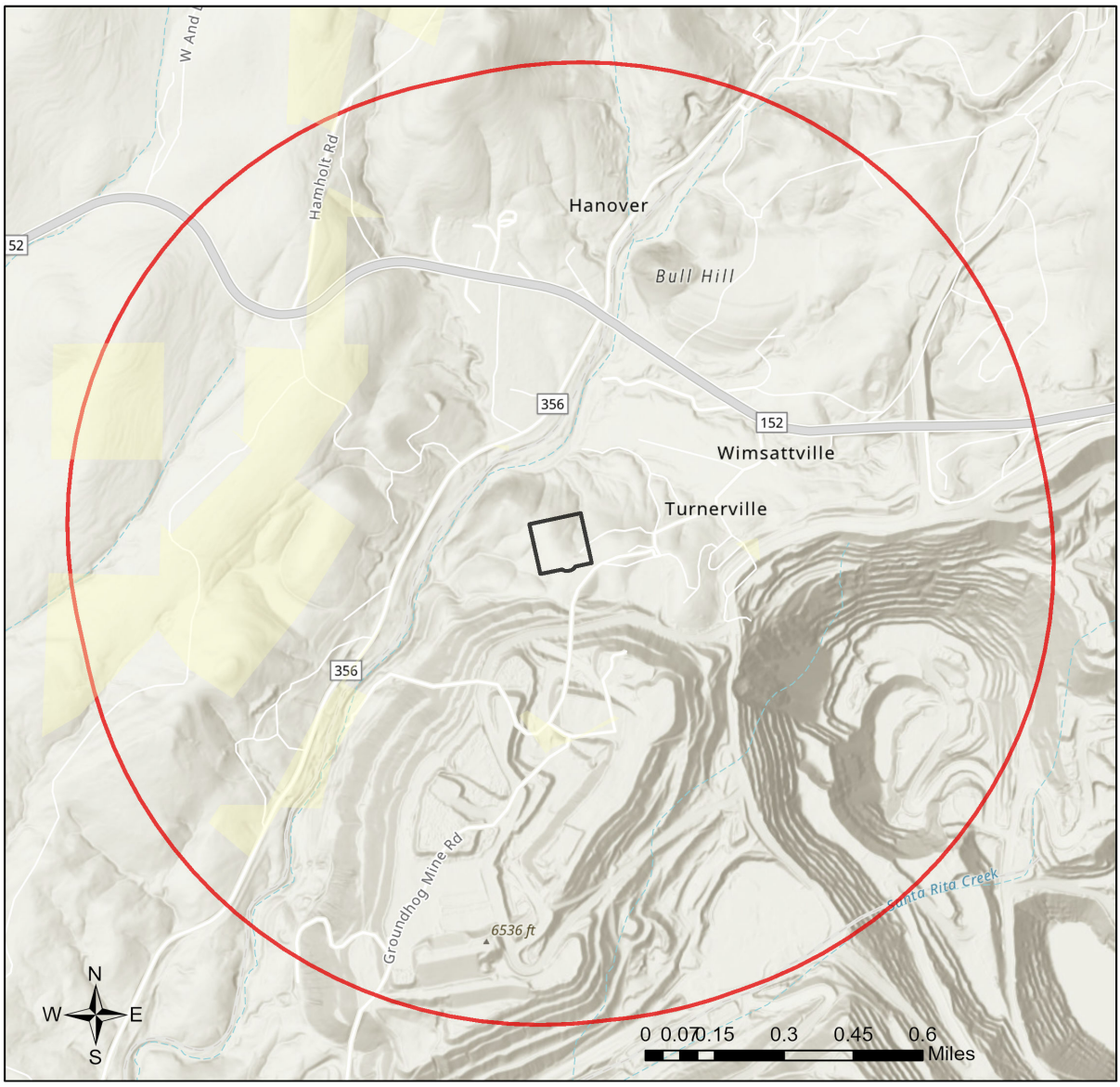
OVERALL STATUS

This report contains an initial list of recommendations regarding potential impacts to wildlife or wildlife habitats from the proposed project; see the Project Recommendations section below for further details. Your project proposal is being forwarded to a New Mexico Department of Wildlife (Department) biologist for review to determine whether there are any additional recommendations regarding the proposed actions. A Department biologist will be in touch within 30 days if there are further recommendations regarding this project proposal.

About this report:

- This environmental review is based on the project description and location that was entered. The report must be updated if the project type, area, or operational components are modified.
- This is a preliminary environmental screening assessment and report. It is not a substitute for the potential wildlife knowledge gained by having a biologist conduct a field survey of the project area. Federal status and plant data are provided as a courtesy to users. The review is also not intended to replace consultation required under the federal Endangered Species Act (ESA), including impact analyses for federal resources from the U.S. Fish and Wildlife Service (USFWS) using their Information for Planning and Consultation tool.
- This report contains information on wildlife species protected under the ESA and the Wildlife Conservation Act (WCA), Species of Greatest Conservation Need (SGCN) (page 18, table 5), and Species of Economic and Recreational Importance (SERI). Species listed under the ESA are protected from take at the federal level and under the WCA are protected from take at the state level. SGCN are identified in the State Wildlife Action Plan (SWAP) for New Mexico; all of these species are considered to be of conservation concern but not all of them are protected from take at the state or federal level. The harvest of all SERI is regulated at the state level. The Department has no authority to designate critical habitat for species listed under the WCA; only the USFWS can designate critical habitat for species listed under the ESA.
- The New Mexico Environmental Review Tool (ERT) utilizes species observation locations and species habitat suitability models, both of which are subject to ongoing change and refinement. Inclusion or omission of a species within a report cannot guarantee species presence or absence within your project area. To determine occurrence of any species listed in this report, or other wildlife that may be present within your project area, onsite surveys conducted by a qualified biologist during appropriate, species-specific survey timelines may be necessary.
- The Department encourages use of the ERT to modify proposed projects for avoidance, minimization, or mitigation of wildlife impacts. However, the ERT is not intended to be used in a repeatedly iterative fashion to adjust project attributes until a previously determined recommendation is generated. The ERT serves to assess impacts once project details are developed. The New Mexico Crucial Habitat Assessment Tool, the data layers from which are included in the ERT, is the appropriate system for advising early-stage project planning and design to avoid areas of anticipated wildlife concerns and associated regulatory requirements.

West Stockpile Exploratory Drilling



- Buffered Project Boundary
- Project_Boundary
- Bureau of Land Management
- City Land
- County Land
- Department of Defense
- Department of Energy
- NM Department of Game & Fish
- NM State Forestry Division
- NM State Parks
- National Park Service
- Private
- State Land Office
- State of New Mexico
- Tribal Land
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation
- U.S. Department of Agriculture
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Natural Resources Conservation Service

NHNM, USGS, USFS, US Census Bureau, NMDGF
Esri, NASA, NGA, USGS, FEMA
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS

Special Status Animal Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Arizona Toad	Anaxyrus microscaphus			SGCN		USFS R3 SCC	BLM SENSITIVE
Mountain Treefrog	Hyla wrightorum			SGCN			
Plains Leopard Frog	Lithobates blairi			SGCN			BLM WATCH
Chiricahua Leopard Frog	Lithobates chiricahuensis	LT		SGCN	Sensitive Species		
American Bittern	Botaurus lentiginosus			SGCN			BLM WATCH
Aplomado Falcon	Falco femoralis		E	SGCN			
Peregrine Falcon	Falco peregrinus		T	SGCN			BLM WATCH
Elf Owl	Micrathene whitneyi			SGCN			BLM WATCH
Western Burrowing Owl	Athene cunicularia hypugaea			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Mexican Spotted Owl	Strix occidentalis lucida	LT		SGCN			
Common Nighthawk	Chordeiles minor			SGCN			
Lewis's Woodpecker	Melanerpes lewis			SGCN		USFS R3 SCC	BLM WATCH
Williamson's Sapsucker	Sphyrapicus thyroideus			SGCN			
Bank Swallow	Riparia riparia			SGCN			
Pinyon Jay	Gymnorhinus cyanocephalus			SGCN		USFS R3 SCC	BLM SENSITIVE
Juniper Titmouse	Baeolophus ridgwayi			SGCN		USFS R3 SCC	BLM WATCH
Pygmy Nuthatch	Sitta pygmaea			SGCN			
Western Bluebird	Sialia mexicana			SGCN			
Mountain Bluebird	Sialia currucoides			SGCN			
Sprague's Pipit	Anthus spragueii			SGCN			BLM SENSITIVE
Loggerhead Shrike	Lanius ludovicianus			SGCN		USFS R3 SCC	BLM WATCH
Gray Vireo	Vireo vicinior		T	SGCN	Sensitive Species	USFS R3 SCC	BLM WATCH

Special Status Animal Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Virginia's Warbler	Leiothlypis virginiae			SGCN			BLM SENSITIVE
Lucy's Warbler	Leiothlypis luciae			SGCN			BLM WATCH
Black-Throated Gray Warbler	Setophaga nigrescens			SGCN			BLM WATCH
Grace's Warbler	Setophaga graciae			SGCN		USFS R3 SCC	BLM WATCH
Red-Faced Warbler	Cardellina rubrifrons			SGCN		USFS R3 SCC	
Black-Chinned Sparrow	Spizella atrogularis			SGCN			BLM WATCH
Vesper Sparrow	Pooecetes gramineus			SGCN			
Thick-billed Longspur	Rhynchophanes mccownii			SGCN			BLM SENSITIVE
Chestnut-Collared Longspur	Calcarius ornatus			SGCN			BLM SENSITIVE
Cassin's Finch	Haemorhous cassinii			SGCN			BLM WATCH
Evening Grosbeak	Coccothraustes vespertinus			SGCN			
Spotted Bat	Euderma maculatum		T	SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Black Bear	Ursus americanus			SERI			
Jaguar	Panthera onca	LE		SGCN			
Mountain Lion	Puma concolor			SERI			
Elk	Cervus canadensis			SERI			
Mule Deer	Odocoileus hemionus			SERI			
Pronghorn	Antilocapra americana			SERI			
Sonoran Mud Turtle	Kinosternon sonoriense			SGCN			
Gila Monster	Heloderma suspectum		E	SGCN			BLM SENSITIVE
Rock Rattlesnake	Crotalus lepidus			SGCN			

Common Name hyperlink takes you to species account in bison-m.org; Scientific Name hyperlink takes you to information in NatureServe Explorer; ESA = Endangered Species Act, C = Candidate, LE = Listed Endangered, LT = Listed Threatened, XN = Non-essential Experimental Population, for other ESA codes see this website; WCA = Wildlife Conservation Act, E = Endangered, T = Threatened; SERI = Species of Economic and Recreational Importance; SGCN = Species of Greatest Conservation Need; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation

Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

Special Status Plant Species Potentially within 1 Miles of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMAC	NMRPCS	USFS	USFS SCC	BLM
Pinos Altos Flameflower	Phemeranthus humilis			SS	Sensitive Species	USFS R3 SCC	BLM WATCH

NMAC = New Mexico Administrative Code, E = Endangered; NMRPCS = New Mexico Rare Plant Conservation Strategy, SS = NM Rare Plant Conservation Strategy Species; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

Project Recommendations

Your proposed project activities may require a custom review for assessment of potential effects to wildlife. See the "OVERALL STATUS" section above to determine the likelihood that your project will be reviewed further based on its location. A Department biologist will confirm whether any additional conservation measures are needed. You should expect to receive any additional project recommendations within 30 days of your project submission. If the "OVERALL STATUS" section indicates that no further consultation with the Department is required based on its location, then you will only receive additional project feedback from the Department if a biologist deems it necessary.

For post-construction reclamation of the project area, the Department recommends that only native plant species are used in the reclamation seed mix and that the mix is designed to enhance local pollinator habitat. The Department also recommends that the seed mix and mulch be certified weed-free to avoid inadvertently introducing non-native species to the reclamation site. Any alternate plant species, used to substitute for primary plant species that are unavailable at the time of reclamation, should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site and suggests including seeds from a region that represents potential future climatic conditions at the site.

Burrowing owl (*Athene cunicularia*) may occur within your project area. Burrowing owls are protected from take by the Migratory Bird Treaty Act and under New Mexico state statute. Before any ground disturbing activities occur, the Department recommends that a preliminary burrowing owl survey be conducted by a qualified biologist using the Department's Burrowing Owl Survey Protocol. Should burrowing owls be documented in the project area, please contact the Department or USFWS for further recommendations regarding relocation or avoidance of impacts.

Your project area intersects an Important Plant Area (IPA) that contains one or more species of plants listed as threatened or endangered by the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) under New Mexico Statutes Annotated (NMSA) 75-6-1 or by the USFWS under the federal ESA. Although IPAs have no legal designation, they have been identified as areas that support either a high diversity of sensitive plant species or contain the last remaining locations of New Mexico's most endangered plants. The Department recommends that you consult with EMNRD's Endangered Plant Program Coordinator regarding any state-listed plants and the USFWS's Information for Planning and Consultation (IPAC) system for any federally-listed plants and reaching out to the appropriate federal species lead(s) with the New Mexico Ecological Services Office of USFWS. The Department does not have any authority to designate or advise on state- or federally-listed plants.

The current project area appears to contain one or more wetland types as classified by the New Mexico Environment Department's Wetland Map. Information on wetlands in your project area can also be viewed on the ERT's Create Project/Map page. This key can assist in interpreting Landscape Position, landform, water flow path, and waterbody type (LLWW) codes in the ERT's wetland data. Wetlands provide important habitat for numerous species of wildlife and pollinators and provide ecosystem services, such as water filtration and storage, to downstream users. The Department recommends avoiding disturbance of wetlands whenever possible, avoiding actions or infrastructure installment that may disrupt natural wetland hydrological processes, and reseeding or replanting areas where disturbance cannot be avoided with native wetland plant species appropriate to the local wetland type. For a list of native seed providers, please see the Department's habitat handbook guideline for Restoration and Management of Native and Non-native Trees in Southwestern Riparian Ecosystems. For projects involving filling wetlands under federal jurisdiction, please contact the Army Corps of Engineers for more information on permits required under the Clean Water Act.

Disclaimers regarding recommendations:

- The Department provides technical guidance to support the persistence of all protected species of native fish and wildlife, including game and nongame wildlife species. Species listed within this report include those that have been documented to occur within the project area, and others that may not have been documented but are projected to occur within the project vicinity.
- Recommendations are provided by the Department under the authority of § 17-1-5.1 New Mexico Statutes Annotated 1978, to provide "communication and consultation with federal and other state agencies, local governments and communities, private organizations and affected interests responsible for habitat, wilderness, recreation, water quality and environmental protection to ensure comprehensive conservation services for hunters, anglers and nonconsumptive wildlife users".
- The Department has no authority for management of plants or Important Plant Areas. The New Mexico Endangered Plant Program, under the Energy, Minerals, and Natural Resources Department's Forestry Division, identifies and develops conservation measures necessary to ensure the survival of plant species within New Mexico. Plant status information is provided within this report as a courtesy to users. Recommendations provided within the ERT may not be sufficient to preclude impacts to rare or sensitive plants, unless conservation measures are identified in coordination with the Endangered Plant Program.
- Additional coordination and/or consultation may also be necessary under the federal ESA or National Environmental Policy Act (NEPA). Further site-specific mitigation recommendations may be proposed during ESA consultation and/or NEPA analyses or through coordination with affected federal agencies.

APPENDIX C
Representative Photographs

Photo 1.
Overview of exploratory drill pad facing east. The majority of the pad has been previously disturbed.

Photo 2.
Overview of exploratory drill pad facing northeast.

Photo 3.
Overview of exploratory drill pad facing northwest.