



ENVIRONMENTAL ASSESSMENT

Pine Springs Telecommunications Tower and Power Line Extension

Oak Springs Chapter,
Navajo Nation

October
2023



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Environmental Assessment

October 2023

***Project: Pine Springs Telecommunications Tower and Power Line
Extension***

Oak Springs Chapter, Navajo Nation

Apache County, Arizona

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Acronyms:

BE	Biological Evaluation
BIA	Bureau of Indian Affairs
BRCF	Biological Resources Compliance Form
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRCF	Cultural Resources Compliance Form
CWA	Clean Water Act
EA	Environmental Assessment
ESA	Endangered Species Act
FESL	Federal Endangered Species List
IPaC	Information, Planning, and Consultation system
IUAs	In-Use Areas
MSWLF	Municipal Solid Waste Landfill
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESL	Navajo Endangered Species List
NNDFW	Navajo Nation Department of Fish and Wildlife
NHPD	Navajo Historic Preservation Department
NTUA	Navajo Tribal Utility Authority
PDL	Painted Desert Landfill
RCRA	Resource Conservation and Recovery Act
SWPPP	Storm Water Pollution Prevention Plan
ROW	Right-of-Way
TCP	Traditional Cultural Properties
TES	Threatened and Endangered and Sensitive
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage, and Disposal Facilities
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank

1.0 Introduction

1.1 Summary

CellularOne Communications of Show Low, Arizona proposes to construct and operate a communications tower in Oak Springs Chapter of the Navajo Nation, Apache County, Arizona. The rights-of-ways (ROWs) will measure 50 feet by 50 feet for the cell tower and 215 feet by 30 feet for the power line. The power line will be owned and operated by Navajo Tribal Utility Authority (NTUA).

Cellular One Communications and NTUA will be requesting ROWs for the proposed action from the Navajo Nation the Bureau of Indian Affairs (BIA), Navajo Regional Office, Gallup, New Mexico. BIA will approve or deny the application. This federal action triggers the National Environmental Policy Act (NEPA) process. The proposed action also requires a license from the Federal Communications Commission.

1.2 Purpose and Need

The purpose of the project is to provide telecommunications services to underserved tribal communities in northeast Arizona. There is a need to upgrade the existing telecommunication system in order to support vital public safety, education, and health services, as well as residents and businesses.

1.3 Location

The proposed telecommunication tower site is located in Oak Springs Chapter of the Navajo Nation that has a land base encompassing 120.9 square mile (LSR Innovations, 2004) in northeast Arizona (**Figure 1**). To access the project site, travel north from Interstate 40 on Pine Springs Exit #346, then northwest on BIA Route 9010 for less than 12 miles, and then north on BIA Route 28 for less than one mile. The site is situated within a former Chapter house tract currently utilized by community members for family gatherings and for storage of various equipment owned by the Chapter. Information regarding the site's coordinates, legal description and USGS reference maps is presented in **Table 1**.

Table 1. Project Location Information			
Latitude and Longitude Coordinates	UTM Coordinates (Nad 83)	Legal Description	USGS 7.5' Map Reference
<u>Self-Support Tower</u> Center: N35° 24' 28.07", W109° 16' 39.07"	<u>Self-Support Tower</u> Center: 3919631 N, 656403 E	T23N, R29E Section 9	<i>Pine Springs, Arizona</i>
Power Line Pole BOL: N35° 24' 30.43" W109° 16' 38.98" EOL: N35° 52'2" , W107° 29'15"	<u>Power Line Pole</u> BOL: 3919704 N, 656404 E EOL: 3919631 N, 656403 E	T23N, R29E Section 9	<i>Pine Springs, Arizona</i>

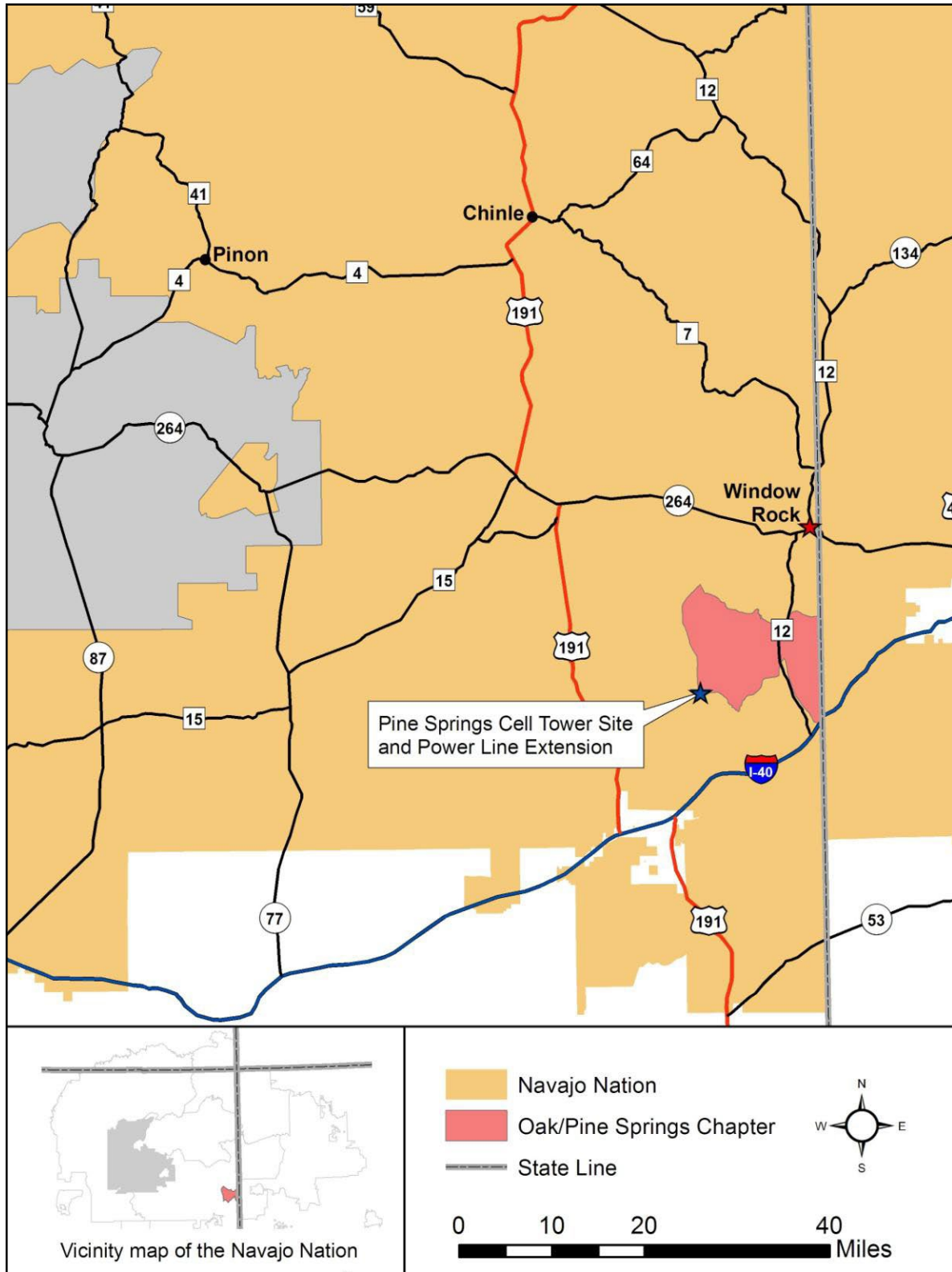


FIGURE 1. GENERAL LOCATION MAP SHOWING PROJECT SITE IN OAK SPRINGS CHAPTER, ARIZONA.

2.0 Proposed Action and Alternatives

Below we discuss the proposed action, no action, and alternative action scenarios.

2.1 Proposed Action

Under the proposed action, *CellularOne Communications* will construct a 180-foot self-supporting tower within a 50' x 50' tract and NTUA will extend a 215-foot power line. The project activities will involve: 1) installing concrete pad and iron pillars, 2) constructing a fence around the cell tower, and 3) installing a power line pole and overhead line. No borrow material will be necessary. The project will not need additional staging area. All of the work will be done within the fenced area of the former Chapter house tract as shown in Figure 2. The Oak Springs Chapter approved the proposed site by resolution (OSC-01-15-12-04) on January 15, 2013.

There are several processes and factors involved in the location of a new site to be added to the network. First, an objective for coverage is determined. A “search ring” is then drafted, typically by outlining a circle of a given radius around the ideal candidate location. The search ring is delivered to the development team, where site acquisitionists work to find the best candidate within the ring. The candidate is compared against the coverage objectives of the search ring. All aspects of the candidate are considered – how well the coverage objectives are met, can the candidate connect to the rest of the network via microwave backhaul, is there access to the site, and how close is commercial power. At that point the candidate is pursued for leasing and eventual cell site construction. The location of this site was determined to be ideal and therefore no alternative sites were further considered for evaluation in this report.

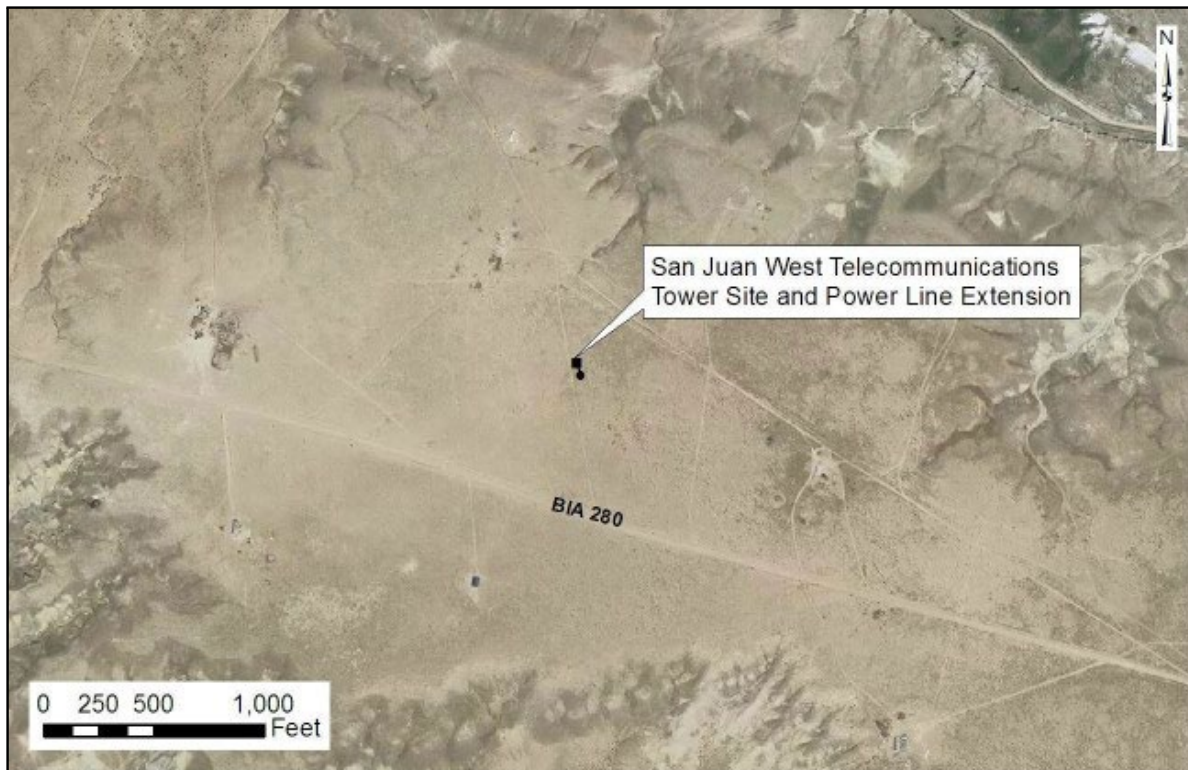


FIGURE 2. AERIAL PHOTO SHOWING THE PROJECT SITE

2.2 No-Action Alternative

Under the no action alternative, the proposed cell tower and power line ROWs would not be approved and no impact to the existing natural and human environments would occur. However, the residents would continue to live without sufficient access to telecommunications.

3.0 Affected Environment

This Chapter describes the existing conditions in and around the project area and establishes the baseline data upon which the impacts have been evaluated and described in **Chapter 4**.

3.1 Land Resources

This section discusses geology, topography, soils, and mineral resources in the area of the proposed project.

3.1.1 Geology

The Navajo Nation is situated in the south-central region of the Colorado Plateau where the area has been relatively stable since late Precambrian time. The reservation has been divided into seven hydrogeologic subdivisions on the basis of differences in the exposed sedimentary rocks, structure, and physiography (Cooley et.al, 1969). Oak Springs Chapter lies in the Defiance Plateau subdivision, described as a large oval upland outlined by dip slopes hogbacks and cuesta of the De Chelly Sandstone and sandstone beds in the Chinle Formation (Cooley et.al, 1969).

3.1.2 Topography

The project site is located on the south end of the Defiance Plateau, a large oval upland that is oriented north to south near the Arizona-New Mexico state line. The elevations range from 7,500 feet at the Plateau's highest point to 6,200 feet in the Rio Puerco valley at the Plateau's southern base. Elevation at the project site is 7,480 feet. The topography of the project site is relatively flat with a gentle slope toward the southeast. A small unnamed ephemeral drainage occurs northwest of the project site. **Figure 3**

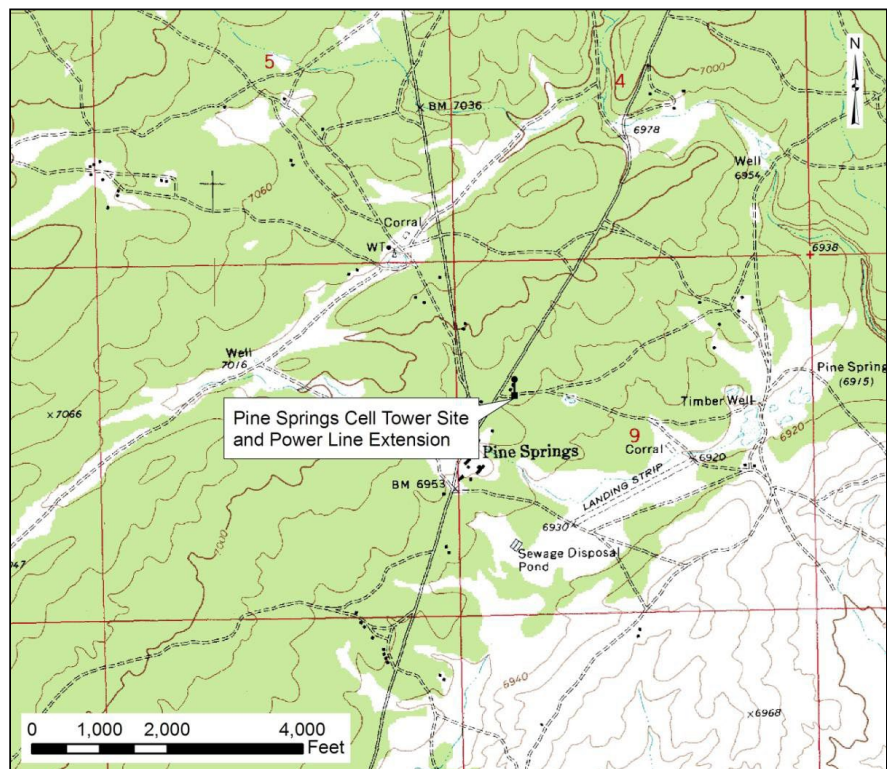


FIGURE 3. TOPOGRAPHIC MAP SHOWING PROJECT SITE (BASE MAP: USGS 7.5' MAP: PINE SPRINGS, ARIZONA).

presents a topographic map with 20 foot contours covering the project site and surrounding area.

3.1.3 Soils

Soils at the site are classified as Cryorthents-Eutroboralfs Association (Hendricks, 1985). These soils are characterized as shallow to deep, moderately coarse to fine-textured, gently sloping to steep, high

mountains soils. This association consists of well-drained soils. It is estimated that medium and moderately fine-textured Cryorthents make up about 40 percent of this association, fine and moderately fine-textured Eutroboralfs make up 40 percent and rock outcrop and shallow or very shallow soils over sandstone or shale bedrock make up the remaining 20 percent.

3.1.4 Mineral Resources

No mineral resources have been identified in the Chapter according to LSR Innovations (2004).

3.2 Water Resources

This section discusses the surface water, ground water, and floodplains in and around the project area.

3.2.1 Surface Water

The regional drainage pattern is to the south toward the Rio Puerco. Many unnamed drainages occur in the Chapter that flow toward West Fork Creek, Black Creek, Querino Wash, Burntwater Wash, and Bent Knee Wash, which are tributaries to the Rio Puerco. No surface waters occur on the project site.

3.2.2 Groundwater

Data from the Navajo Nation Water Management Branch in Ft. Defiance, Arizona, reveals that nine water wells occur within a one-mile radius of the project area. These wells tap the DeChelly Sandstone, the principal water-bearing unit in the region.

3.2.3 Floodplains

The project is located in the higher elevated areas where drainages form and become ephemeral streams. The project area is not found in lowland and relatively flat areas adjoining inland and coastal waters, or in alluvial plains that border a stream which is the general setting for flood plains.

3.3 Atmospheric Resources

This section discusses air resources in terms of air quality/visibility and climate/meteorology conditions in and around the project area.

3.3.1 Air Quality/Visibility

The Clean Air Act requires the establishment of National Ambient Air Quality Standards (NAAQS) for ambient levels of criteria pollutants using health and welfare-based criteria. The NAAQS include seven principal pollutants: carbon monoxide (CO); nitrogen dioxide (NO₂); ozone (O₃); particulate matter equal to or less than 10 microns in diameter (PM₁₀); particulate matter equal or less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb).

Air quality on the Navajo Nation is generally good and in-attainment for criteria pollutant emission levels under the NAAQS. According to EPA's Interactive Map of Air Quality, on September 14, 2022, the air quality index (AQI) was good for Navajo Nation, except for Grand Canyon National Park, which had a moderate air quality index (AIRNOW, 2022). The data is based on ambient air monitoring stations in Shiprock, New Mexico, and Nazlini, Arizona.

3.3.2 Climate

The project region experiences cold, harsh winters, low precipitation scattered more or less throughout the year, and extremes in both daily and seasonal temperatures. The average annual precipitation is about 10.67 inches. The average maximum temperature occurs in July and is 88.1° Fahrenheit. The

average minimum temperature occurs in January and is 15.4 ° Fahrenheit (Western Regional Climate Center, 2013). Winds are generally from the southwest.

Human activities (primarily the burning of fossil fuels) have fundamentally increased the concentration of greenhouse gases in Earth's atmosphere, warming the planet (NASA, 2020). Both Arizona, New Mexico, and Utah's climate has warmed approximately 2°F in the last century, and this trend is expected to continue. These increases have been linked to recent swings on the Navajo Nation between intense drought and unusually wet periods. Ongoing drought and changes to climate in the region have also impacted livestock health through increased stress of availability of forage. Throughout the southwestern United States, heat waves are becoming more common, snow is melting earlier in spring, and unusual weather events are predicted to become more likely. In the coming decades, changing the climate is likely to decrease the flow of water in the Colorado River, threaten the health of livestock, increase the frequency and intensity of wildfires, and convert some rangelands to desert (USEPA, 2016). Climate change threatens natural resources and public health of tribal communities. Rising temperatures and increasing drought are likely to decrease the availability of certain fish, game, and wild plants on which the Navajo and other tribes have relied for generations. Water may be less available for domestic consumption, especially for those who are not served by either municipal systems or reliable wells. This includes about 30% of the people on the Navajo Nation, who must haul water to meet daily needs. Recurring drought and rising temperatures may also degrade the land itself. In western Navajo Nation, for example, the Great Falls Dune Field has advanced almost a mile in the last 60 years, threatening roads, homes, and grazing areas. Extreme heat may also create health problems for those without electricity, including about 40% of the people on the Navajo reservation (Nania et al., 2014).

3.4 Biotic Resources

This section discusses the biological communities, wildlife, vegetation, threatened, endangered and sensitive species, and agriculture identified at the project site and surrounding areas. A Biological Resources Report was conducted by Rafael Reyna of JE Fuller Hydrology & Geomorphology (JE Fuller) on in September of 2023, which is also summarized here.

3.4.1 Description of Biological Communities

The Oak Springs Chapter lies within the Great Basin Conifer Woodland biome (Brown, 1994). This cold-adapted evergreen woodland is characterized by the unequal dominance of two conifers -juniper and pinyon. These trees rarely, if ever, exceed 12 meters in height and are typically openly spaced, except at higher elevations and other less xeric sites where interlocking crowns may present a closed aspect. This woodland has its evolutionary center in the Great Basin and is one of the most extensive vegetation types in the Southwest (Brown, 1994).

3.4.2 Vegetation and Wildlife

The tower site falls within the Great Basin Conifer Woodland biotic community, which is characterized by the unequal dominance of juniper and pinyon. This woodland has its evolutionary center in the Great Basin and is one of the most extensive vegetation types in the Southwest. Big sagebrush (*Artemisia tridentata*), rabbitbrush (*Chrysothamnus spp.*), winterfat (*Krascheninnikovia lanata*), shadscale (*Atriplex confertifolia*), and black sagebrush (*Artemisia nova*) are a common understory plant in this biotic community. Only a few vertebrates are closely tied to the Great Basin Conifer Woodland, which include pinyon mouse (*Peromyscus truei*), pinyon jay (*Gymnorhinus cyanocephalus*), gray flycatcher (*Empidonac*

wrightii), bushy-tailed woodrat (*Neotoma cinerea*), gray vireo (*Vireo vicinior*), black-throated gray warbler (*Setophaga nigrescens*), Scott's oriole (*Icterus parisorum*), and plateau whiptail (*Aspidoscelis velox*).

3.4.3 TES Species

JE Fuller Hydrology & Geomorphology (JE Fuller) sought information from the Navajo Nation Department of Fish & Wildlife (NNDFW) regarding special-status species that are known or have the potential to occur within or around the project area. A Navajo Endangered Species List (NESL) was provided to JE Fuller upon request from NNDFW on June 13, 2023 (NNDFW DR#23jefhg105), included in **Appendix A**. Many species listed by the USFWS as threatened, endangered, or candidate under the Endangered Species Act (ESA) and birds protected under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA) were also included in the NNDFW consultation letters. A list of threatened, endangered, or candidate species was also obtained from the USFWS Information, Planning, and Consultation System (IPaC) on September 13, 2023, available in **Appendix B** (JE Fuller, 2023).

The NNDFW consultation letter (DR# 23jefhg105) indicated that no special status species are documented as occurring within 3 miles of the project site. Special status species listed by NNDFW as potentially occurring in the vicinity of the project site include the following: the northern saw-whet owl (*Aegolius acadicus*), golden eagle (*Aquila chrysaetos*), and tree swallow (*Tachycineta bicolor*).

The USFWS IPaC list identified Mexican wolf (*Canis lupus baileyi*), yellow-billed cuckoo (*Coccyzus americanus*), Zuni bluehead sucker (*Catostomus discobolus yarrow*), and monarch butterfly (*Danaus plexippus*) as having potential habitat in the project vicinity. No species were documented as occurring within 3 miles of the project area by Arizona Game and Fish Department's Environmental Review Tool (JE Fuller, 2023).

Species listed by USFWS and NNDFW were evaluated and are listed in Table 2. Existing literature was reviewed for each species to determine whether specific species and/or their habitat may be affected by the proposed project.

Species	NESL Status	Habitat Analysis	Occurs Within 1-3 Miles of the Project	Findings
Northern saw-whet owl	NESL G4, MBTA	The breeding range of northern saw-whet owl includes most of northern and western US, Canada, and central Mexico. There is no documented breeding on Navajo Nation for the species, but potential exists in forests and wooded canyons of Chuska Mountains, Defiance Plateau, Black Mesa, and Navajo Mountain. The species nests in tree cavities in relatively open ponderosa pine, Douglas-fir, or mixed conifer forests; it may also nest in old-growth riparian woodlands. Wintering habitat is variable but dense vegetation is critical. The habitat in the project area is pinyon-juniper and does not contain the mixed conifer forests appropriate for the species. Therefore, this project would have no effect to the species or its habitat.	No, but listed as potentially occurring by NNDFW	No effect
Golden eagle	NESL G3,	Golden eagles require tall trees or cliff ledges for nesting purposes and use forest clearings and open grasslands for foraging, this	No, but listed as	Direct impacts to golden eagles

	BGEPA, MBTA	<p>species generally occupied cliff ledges composed of sandstone, limestone, or volcanic rock and prefers to nest on ledges typically higher than 30 meters at elevations between 4,000 and 10,000 feet. There are no tall trees or cliff ledges in the vicinity of the project area that represent suitable nesting habitat for the species.</p> <p>According to the BGEPA, "Taking" bald or golden eagles, including their parts (including feathers), nests, or eggs is prohibited under the BGEPA and would not occur. "Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." "Disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." Direct impacts to golden eagles are not anticipated. Potential prey items may occur within the vicinity of the cell tower site, and there could be short-term effects to prey availability during and after cell tower construction. However, significant impacts to these species or its habitat are unlikely.</p>	potentially occurring by NNDFW	are not anticipated. Very minor indirect impacts may occur temporarily. No "take" as defined by the BGEPA would occur as a result of this project. The project is not likely to adversely affect the species or its habitat.
Tree swallow	NESL G4, MBTA	Tree swallows are known from Chuska Mountains on Navajo Nation, but potential occurs throughout forested areas of Navajo Nation. The species breeds in existing cavities of a variety of tree species (coniferous and deciduous), and often uses snags in open fields near water, especially marshes and wooded ponds. The project area is not adjacent to any open water or wetlands, which are the preferred breeding habitats for the species. therefore, this project would have no effect to the species or its habitat.	No, but listed as potentially occurring by NNDFW.	No effect
Yellow-billed cuckoo	NESL G2, ESA LT, MBTA	Yellow-billed cuckoo is found mainly in mature cottonwood-willow stands, and to a lesser extent in willows or isolated cottonwoods mixed with tall mesquites. It is also found in streamside cottonwood, willow groves, and larger mesquite bosques for migrating and breeding. Rarely a transient in xeric desert or urban settings. Breeding may occur at all elevations on the Navajo Nation but is currently only known to occur along the San Juan River. Potential habitat may also occur along other canyons and streams with appropriate habitat. There is no suitable riparian habitat for yellow-billed cuckoo in the project area and, therefore, this project would have no effect to the species or its habitat.	No, but listed as potentially occurring by USFWS	No effect
Zuni bluehead sucker	NESL G2, ESA LE	Zuni bluehead sucker occupies stream reaches with clean, perennial water flowing over hard substrate; often found in shaded pools and pool-run habitats with water speeds of less than 0.3 feet per second. Most are found in water 12 to 20 inches deep with substrate of cobble, boulders, and bedrock. This species is usually not found in areas with substrates dominated by silt or sand. Pools with this species are often edges with emergent and aquatic plants and riparian vegetation. There are no perennial streams within or near the project area that represent suitable habitat for the species. Therefore, this project would have no effect to the species or its habitat.	No, but listed as potentially occurring by USFWS	No effect
Mexican wolf	NESL G1, ESA LE	Mexican wolves prefer wooded mountainous habitats, most likely because of the favorable combination of water, cover, and prey availability. Wolves avoid desert scrub and semi-desert grasslands since they provide little cover or water, and need room to roam as they have wide-ranging dispersal distances for hunting and breeding. Wolves once roamed the Navajo Nation and southwestern US until around the 1970s but were killed off by	No, but listed as potentially occurring in the vicinity by USFWS	No effect

		aggressive predator control programs. Wolves were reintroduced into parts of Arizona and New Mexico in an attempt to establish wild populations beginning in 1998; however, the species is unlikely to be present onsite or near the project area. Therefore, this project would have no effect to the species or its habitat.		
Monarch Butterfly	ESA C	Breeding areas for monarchs are virtually all patches of milkweed in North America. Monarchs in Arizona migrate to known overwintering destinations in both Mexico and California; small numbers overwinter in the lower deserts of southwestern Arizona. The monarch is listed as potentially occurring within or near the project area. No milkweed species are documented as occurring within 20 kilometers of the project area. Therefore, this project would have no effect to the species or its habitat.	No, but listed as potentially occurring in the vicinity by USFWS.	No effect
BGEPA – Bald and Golden Eagle Protection Act ESA – Endangered Species Act (LE: Listed Endangered, LT: Listed Threatened, C: Candidate) MBTA – Migratory Bird Treaty Act NESL – Navajo Endangered Species List				

3.4.4 Agriculture and Livestock

Agricultural activities are important land uses within this region. Farms occur along Black Valley on the east side of Defiance Plateau. Approximately 36 family farms occur in the Chapter (LSR Innovations, 2004). Livestock grazing of cattle, sheep and horses are also part of the agricultural activities within the chapter. Based on a site visit, no farms were found, and no prime or unique farmlands identified by the USDA Soil Conservation Service occur on or near the project area.

3.5 Cultural Resources

Cultural resources are tangible remains of past human activity. A cultural resource or cultural property has a definite location of human activity, occupation, or use, normally greater than 50 years of age, and is identifiable through field inventory, historical documentation, or oral evidence. They may include archaeological, historical, or architectural sites, structures, or places with important public and scientific uses, or traditional cultural or religious importance to specified social and/or cultural groups (USDA, 2023). The Navajo Nation Heritage and Historic Preservation Department (NNHHPD) has authority to determine if any historic or cultural artifacts are present within sites. Traditional Cultural Properties (TCPs) on the Navajo Nation include but are not limited to sites that have been blessed, sites where ceremonies occurred, trail shrines, rock art, marked and unmarked graves, places for gathering plants and minerals, prayer offering places, places associated with Navajo, clan, custom, or Holy Being origin stories and ceremonies, places that possess supernatural power, and places associated with individual life cycle rituals. If a TCP meets the criteria and criteria exceptions (36 CFR 800.2), it may qualify for the National Register of Historic Places (NRHP) and protection by Section 106 of the National Historic Preservation Act.

A cultural resources inventory of the proposed project site was conducted by Mathilda Burke, Project Archaeologist, ETD, Inc. The inventory consisted of a records search at the Navajo Historic Preservation Department (NHPD) and a field survey conducted on November 19, 2012 under Navajo Antiquities Permit No. B12781. The result of the cultural resource inventory is discussed below.

3.5.1 Archaeological Resources

An archaeological field survey was conducted by Mathilda Burke using a Class III pedestrian inventory method using transects spaced approximately 7.5 meters apart across the project site. A 100-foot radius was also surveyed around the cell tower site along with a 50-foot buffer zone on both sides of the power line

extension. Three buildings were identified within the former chapter house tract. They are also referred to as in-use areas (IUAs). These include a log cabin and cement stucco buildings dating back to 1965 and late 1960's and a Quonset hut from the early 1970s. At the time of the 2012 survey, the buildings were in poor condition with graffiti seen on the outside. The archaeologist recommended that the buildings do not meet NRHP Criteria A through D and are not eligible for the NRHP, but that they have potential to yield additional archaeological historical information. A report was prepared by Ms. Burke and submitted to NHPD, with the recommendation that the client be allowed to proceed with construction as planned (refer to **Appendix B**).

3.5.2 Traditional Cultural Properties (TCPs), Historic, and Religious Properties

Ethnographic interviews were conducted with local residents about the known TCP and other possible TCPs such as burials, sacred sites, and plant/herb gathering areas found on or near the proposed project area. They stated that they were unaware of any TCPs on or near the project site.

3.6 Socioeconomic Conditions

This section discusses the employment and income, demographics and trends, and lifestyles, cultural values, attitudes, expectations, and community infrastructure existing within the project area.

3.6.1 Employment and Income

According to the U.S. Census 2010 website (www.census.gov), the median household income in the Oak Springs Chapter was \$23,824 and the per capita income was \$12,178. The unemployment rate was nearly 40.6 percent. Approximately 23.3 percent of the Chapter residents lived below the poverty level. Employment of the Chapter residents includes BIA, Navajo Nation Government departments, educational services, and public administration.

3.6.2 Demographic and Trends

The U.S. Census 2010 website (www.census.gov) reported the population of the San Juan Chapter to be 1,792, an increase in the population of 97 as recorded in 2000. The median age is currently around 28.2 years of age. There were approximately 525 households within the Chapter with an average of 3.76 persons per household. In comparison, the average household size for the U.S. is about 2.5 persons.

3.6.3 Lifestyles, Cultural Values, Attitudes, Expectations

The communities of the Navajo Nation are generally composed of at least 97% Navajo residents (LSR Innovations, 2004). These residents continue to practice the traditional Navajo lifestyle, often combining that with the typical American lifestyle. The majority of families travel to off reservation towns for shopping and entertainment. Since the residents of the Chapter practice both Navajo and American lifestyles, they generally support appropriate amount development that will enhance and promote a better way of life.

3.6.4 Community Infrastructure

Infrastructure systems that serve the Oak Springs Chapter are described below:

- **Roads and Accessibility.** The project site is situated adjacent to BIA Route 28 and is quite accessible.
- **Power.** The electrical power infrastructure in the project area is owned and operated by NTUA. *CellularOne Communications* is working with NTUA to have power extended to the telecommunications tower.
- **Water.** Water utilities in the project area are owned and operated by NTUA. No water utilities are required for the proposed project.

- **Wastewater.** Wastewater utilities in the project area are owned and operated by NTUA. No wastewater utilities are required for the proposed project.
- **Solid Waste.** Solid waste generated in the Oak Springs Chapter is disposed of at a transfer station located near the Chapter House. Waste collected in at the transfer station is hauled to a state permitted landfill by Navajo Sanitation, Inc.

3.7 Environmental Justice

The proposed project is located in Oak Springs Chapter where 97% of the population is Native American. Environmental justice has been defined as the pursuit of equal justice and equal protection under the law for all environmental statutes and regulations without discrimination based on race, ethnicity, and/or socioeconomic status. The community members have not raised any environmental justice issues as exhibited by resolution approving the project with a vote of 26 to 0 in favor of the project.

3.8 Indian Trust Resources

Water, timber, and fertile farmland are resources identified by the Oak Springs Chapter that can be considered Indian Trust Resources (Rodgers, 2004).

3.9 Environmental Module

Sites regulated under the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Toxic Substance Control Act (TSCA) are discussed here. The information presented below was obtained from the U.S. EPA Envirofacts website (www.epa.gov/enviro).

3.9.1 RCRA Subtitle C Sites

Subtitle C program identifies the criteria and establishes various requirements for the three categories of hazardous waste handlers: (1) generators; (2) transporters, and (3) treatment, storage, and disposal facilities (TSDF). The proposed project will not generate, handle, or store hazardous waste on or near the project area as part of the proposed action.

3.9.2 RCRA Subtitle D Sites

Subtitle D regulates the disposal of solid waste. Solid waste, including construction waste, will be generated during the course of construction. This waste will be hauled to Painted Desert Landfill (PDL) is owned by Pen Rob, Inc., and operated by Waste Management of Arizona, Inc., located in Joseph City, 5 miles west of Holbrook along Interstate 40.

3.9.3 RCRA Subtitle I Sites

Subtitle I regulates active underground storage tanks (UST) and abandoned and often leaking underground storage tanks. Based on the field visit, no RCRA Subtitle I underground storage tank sites occur on or near the project area and no underground storage tanks will be installed as part of the proposed project.

3.9.4 CERCLA Sites

There are no CERCLA sites on or near the proposed project area. A field visit to the site also supported the conclusion that no CERCLA sites occur on or near the proposed project.

3.9.5 Toxic Substances Control Act Sites

Toxic Substances Control Act sites do not occur on or near the project area. No toxic substances will be used, generated, handled, or stored on or near the project site as part of the construction or operation of the proposed project.

3.10 Resources/Land Use Patterns

The following land uses or practices occur in this region: transportation use network, land use plans, agriculture, hunting, fishing, and timber harvesting.

3.10.1 Transportation Use Network

The main access routes into and through the Oak Springs Chapter are BIA Route 28 and BIA Route 12. From these main routes, numerous dirt roads, including unpaved BIA bus routes, provide access to most areas of the chapter.

3.10.2 Land Use Plans

The Oak Springs Chapter has a community land use plan in effect. The proposed action will not affect the current land use pattern or plans.

3.10.3 Agriculture

Agricultural practices of the Oak Springs Chapter are discussed above in **Section 3.4.4**.

3.10.4 Outdoor Recreation, Fishing, Hunting

No government or private sponsored outdoor recreation areas occur in the project area.

3.10.5 Timber Harvesting

Timber harvesting is presently not occurring in the Chapter, or on the Navajo Nation; however, this area is part of the Navajo Forest that is managed by the Navajo Nation Department of Forestry.

3.11 Other Values

This section discusses the wilderness areas, sound and noise, public health and safety, and visual setting existing within the project area.

3.11.1 Wilderness Areas

The nearest designated wilderness area is the Petrified Forest Wilderness area located 39 miles southwest of the proposed project site. It is managed by the National Park Service.

3.11.2 Sound and Noise

Man-made sound and noise sources near the project site include traffic along BIA Route 12, 9010, and Route 28. Natural sound and noise sources in the project area primarily consist of atmospheric phenomena such as wind, thunder, and rain.

3.11.3 Public Health and Safety

Oak Springs Chapter community is served by the Sanders Health Clinic in Sanders, AZ, Ft. Defiance Indian Hospital in Ft. Defiance, NM, and Gallup Indian Medical Center in Gallup, NM. Fire protection within the Chapter is provided by a volunteer fire station located in St. Michaels, AZ. Wildfire protection is provided by the BIA. The Chapter receives police protection through Navajo Nation Department of Public Safety, Ft. Defiance Police District.

3.11.4 Visual Setting

The proposed project site is located in the scenic region of the Navajo Nation. However, no scenic byways or scenic areas have been formally identified for the project area.

4.0 Environmental Consequences

This section discusses the impacts to the natural and human environment on and near the project site as a result of the proposed action. Mitigation measures that reduce or eliminate impacts are discussed where appropriate.

4.1 Land Resources Impacts and Mitigation

The proposed project will be constructed upon the existing topography with no modifications. No impact to the area topography is anticipated as a result of the proposed project.

Soil disturbance will occur in and around the areas where the pad for the tower will be placed, and where the power line pole will be installed. The impact to the soil will be minor and short term. The project is not subject to a National Pollutant Discharge Elimination System Permit.

4.2 Water Resources Impacts and Mitigation

Disturbed areas on the project site can result in increased soil erosion and subsequent stream sedimentation or contamination, especially during times of heavy precipitation. Due to the distance to surface waters, there will be no impact to surface waters as a result of the project. The proposed project activities will not involve deep excavation, and therefore, ground water resources will not be impacted. The project is not located within a floodplain; therefore, no impacts to or from floodplains are anticipated as a result of the proposed project.

4.3 Air Resources Impacts and Mitigation

The construction of the proposed project facilities will cause a slight degradation of the air quality due to increased airborne dust (particulate matter) and exhaust emissions (carbon monoxide) into the atmosphere. However, this impact will be minor and short-term.

4.4 Biological Resources Impacts and Mitigation

The project activities include clearing a small amount of vegetation at the site. The impacted areas will likely recover soon after the construction. Therefore, the impact on the vegetation will be minimal and short-term. The construction activities will initially create some noise to wildlife in the remote and quiet areas of the tower site. However, these impacts will be minimal and short-term and there will likely be no significant impacts to wildlife following the construction activities. No farming activities occur on the proposed project sites. Livestock grazing occurs in the area surrounding the fenced project tract. The project will have no impact on agricultural resources.

The proposed project site has been disturbed due to previous development in the area and qualifies as a categorical exclusion, which is exempt from surveys and biological evaluations according to NNEPA and NNDFW regulations. A Biological Resource Compliance Form (BRCF) was granted by the NNDFW on October 9, 2023, indicating that the project site will not impact any habitat for TES species. See Appendix D for the BRCF.

A biological report prepared by JE Fuller analyzed effects that the proposed project may have on IPAC-listed and other special-status species within the vicinity. A determination of “no effect” was given for all 4 species identified by the USFWS IPaC list: Mexican wolf, yellow-billed cuckoo, Zuni bluehead sucker, and monarch butterfly. The golden eagle, identified by the NESL, may incur very minor indirect impacts, given the possibility of short-term effects to prey availability during and after construction. However, significant impacts to the species are unlikely. With the implementation of the following mitigation measures, adverse effects to special-status species would be avoided or minimized.

Therefore, JE Fuller recommended that the proposed project be allowed to proceed. However, if any special-status species are detected before or during construction, NNDFW would be notified, and care and management of that species would commence as recommended by NNDFW.

Mitigation Measures:

1. When constructing the cell tower, several trees may need to be removed. This could impact nesting migratory birds if vegetation removal is conducted during the migratory bird breeding season. Therefore, a pre-construction migratory bird nest search is recommended if construction is to commence during the breeding season of March 15 – August 15. If an active nest is discovered on-site, a 50-meter no-disturbance buffer should be established around the active nest during the migratory bird season from the time of discovery to fledging of chicks or nest failure. If no active nests are discovered during the preconstruction nest search, then construction can continue as planned.
2. Care should be taken to avoid unnecessary disturbance to minimize dust and sediment release during maintenance and access to the site.
3. Invasive species Best Management Practices should be followed to ensure that invasive species are not spread during project implementation.
4. If any sensitive wildlife or plant species described in the report are encountered on-site, they will be reported immediately to NNDFW, and work would stop until a response with recommended avoidance/mitigation measures is received from NNDFW.

4.5 Cultural Resources Impacts and Mitigation

Three (3) in-use buildings have been identified near the project area, within the fenced former chapter tract. None of the buildings meet the eligibility requirements for nomination to the National Register of Historic Places. A cultural resource inventory by Ms. Burke determined that the proposed project would have no effect on historic properties. Further, no traditional cultural, or religious properties were identified based on interviews with local residents.

Therefore, no impacts from the proposed project are anticipated as a result of the proposed project. NHPD concurred with the finding of no historic properties effected and issued a Cultural Resource Compliance Form on February 26, 2013 (**Appendix B**).

4.6 Socioeconomic Conditions Impacts and Mitigation

Potential impacts to employment and income, demographics and trends, and lifestyles, cultural values, and community infrastructure are anticipated to be positive, moderate, and long-term impacts by improving telecommunications for education, health, and public safety purposes within the community.

4.7 Environmental Justice

Based on the nature of the project and its purpose and need, no disproportional adverse human health or environmental effects to minority or low-income populations are anticipated due to the proposed project. The proposed project will only benefit the local community which is mainly comprised of low-income minority citizens.

4.8 Indian Trust Resources Impacts and Mitigation

The project area is part of the Navajo Nation Forest; Timber is an Indian Trust Resources. No timber harvesting occurs on or near the project area at this time. These resources will be unaffected by the project.

4.9 Environmental Module

No RCRA, CERCLA or TSCA sites occur on or near the proposed project sites and, therefore, no RCRA, CERCLA, or TSCA sites will be developed as part of the proposed project. Thus, no impacts to such sites or activities regulated under the RCRA, CERCLA or TSCA are anticipated as result of the proposed project.

4.10 Resource/Land Use Patterns

The proposed project does not change land uses and there are no agricultural or recreation sites found near the project; therefore, there will be no impact to these resources. Maintenance will require regular site visits by *CellularOne Communications* following construction; therefore, there will be minor, long-term impact to increased traffic.

4.11 Other Values


The tower will be visible from Navajo Route 36 in some areas and especially to nearby homes in San Juan Chapter. Therefore, the project may have a moderate, long-term effect on the local visual setting.

4.12 Cumulative Impacts

The impacts resulting from project activities would be minor in the form of temporary and highly localized surface disturbances. Cumulative impacts that result from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions are unforeseeable in which a significant impact could be created over time. No adverse cumulative impacts are anticipated as a result of the proposed project. The proposed project will support vital public safety, education, and health services, as well as residents and businesspeople within Oak Springs Chapter community.

5.0 Document Preparers' Qualifications and Signature

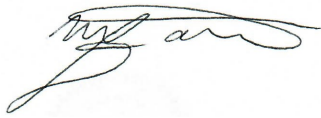
This document has been prepared by Madelyn Norstrem, Environmental Scientist, ETD, Inc., and Eunice L. Tso, NEPA Specialist, ETD, Inc. Ms. Norstrem holds a B.S. Degree in Environmental Science, with an Emphasis on Resource Management. Ms. Tso has over 25 years of experience in environmental regulatory compliance in Indian Country and is an expert in the environmental policies and regulations that affect development in Indian country. She holds a M.S. Degree in Environmental Geology from Northern Arizona University.



Eunice L. Tso, M.S. Geology
NEPA Specialist

10/11/2023

Date



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Appendix A: NNDFW Data Request #23JEFHG105

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23jefhg105

13-June-2023

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928-486-0316
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SUBJECT: Pine Springs Cell Tower Site

Rafael Reyna,

NNHP has performed an analysis of your project in comparison to known biological resources of the Navajo Nation and has included the findings in this letter. The letter is composed of seven parts. The sections as they appear in the letter are:

1. **Known Species** – a list of all species within relative proximity to the project
2. **Potential Species** – a list of potential species based on project proximity to respective suitable habitat
3. **Quadrangles** – an exhaustive list of quads containing the project
4. **Project Summary** – a categorized list of biological resources within relative proximity to the project grouped by individual project site(s) or quads
5. **Conditional Criteria Notes** – additional details concerning various species, habitat, etc.
6. **Personnel Contacts** – a list of employee contacts
7. **Resources** – identifies sources for further information

Known Species lists "species of concern" known to occur within proximity to the project area. Planning for avoidance of these species is expected. If no species are displayed then based upon the records of the Navajo Nation Department of Fish and Wildlife (NNDFW) there are no "species of concern" within proximity to the project. Refer to the Navajo Endangered Species List (NESL) Species Accounts for recommended avoidance measures, biology, and distribution of NESL species on the Navajo Nation (https://www.nndfw.org/nnhp/sp_account.htm).

Potential Species lists species that are potentially within proximity to the project area and need to be evaluated for presence/absence. If no species are found within the Known or Potential Species lists, the project is not expected to affect any federally listed species, nor significantly impact any tribally listed species or other species of concern. Potential for species has been determined primarily on habitat characteristics and species range information. A thorough habitat analysis, and if necessary, species specific surveys, are required to determine the potential for each species.

Species of concern include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For legally protected species, the

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following tribal and federal statuses are indicated: NESL, federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate, NESL group 4 status, and species listed on the Sensitive Species List. Please be aware of these species during surveys and inform the NNDFW of observations. Reported observations of these species and documenting them in project planning and management is important for conservation and may contribute to ensuring they will not be up listed in the future.

In any and all correspondence with NNDFW or NNHP concerning this project please cite the Data Request Code associated with this document. It can be found in this report on the top right corner of every page. Additionally please cite this code in any biological evaluation documents returned to our office.

1. Known Species (NESL=Navajo Endangered Species List, FE=Federally Endangered, FT=Federally Threatened, FC=Federal Candidate)

Species

None

2. Potential Species

Species

AEAC = Aegolius acadicus / Northern Saw-whet Owl NESL G4
 AQCH = Aquila chrysaetos / Golden Eagle NESL G3
 TABI = Tachycineta bicolor / Tree Swallow NESL G4

3. Quadrangles (7.5 Minute)

Quadrangles

Pine Springs (35109-D3) / AZ

4. Project Summary (EO1 Mile/EO 3 Miles=elements occurring within 1 & 3 miles., MSO=mexican spotted owl PACs, POTS=potential species, RCP=Biological Areas)

SITE	EO1MI	EO3MI	QUAD	MSO	POTS	RCP
Cell Tower	None	None	Pine Springs (35109-D3) / AZ	None	AEAC, AQCH, TABI	Area 3
Power Line	None	None	Pine Springs (35109-D3) / AZ	None	AEAC, AQCH, TABI	Area 3

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5. Conditional Criteria Notes *(Recent revisions made please read thoroughly. For certain species, and/or circumstances, please read and comply)*

A. Biological Resource Land Use Clearance Policies and Procedures (RCP) - The purpose of the RCP is to assist the Navajo Nation government and chapters ensure compliance with federal and Navajo laws which protect, wildlife resources, including plants, and their habitat resulting in an expedited land use clearance process. After years of research and study, the NNDFW has identified and mapped wildlife habitat and sensitive areas that cover the entire Navajo Nation.

The following is a brief summary of six (6) wildlife areas:

1. **Highly Sensitive Area** – recommended no development with few exceptions.
2. **Moderately Sensitive Area** – moderate restrictions on development to avoid sensitive species/habitats.
3. **Less Sensitive Area** – fewest restrictions on development.
4. **Community Development Area** – areas in and around towns with few or no restrictions on development.
5. **Biological Preserve** – no development unless compatible with the purpose of this area.
6. **Recreation Area** – no development unless compatible with the purpose of this area.

None - outside the boundaries of the Navajo Nation

This is not intended to be a full description of the RCP please refer to the our website for additional information at <https://www.nndfw.org/clup.htm>.

B. Raptors – If raptors are known to occur within 1 mile of project location: Contact the NNHP zoologist at 871-7070 regarding your evaluation of potential impacts and mitigation.

Golden and Bald Eagles- If Golden or Bald Eagle are known to occur within 1 mile of the project, decision makers need to ensure that they are not in violation of the *Golden and Bald Eagle Nest Protection Regulations* found at https://www.nndfw.org/nnhp/docs_reps/gben.pdf.

Ferruginous Hawks – Refer to *Navajo Nation Department of Fish and Wildlife's Ferruginous Hawk Management Guidelines for Nest Protection* (https://www.nndfw.org/nnhp/docs_reps.htm) for relevant information on avoiding impacts to Ferruginous Hawks within 1 mile of project location.

Mexican Spotted Owl - Please refer to the *Navajo Nation Mexican Spotted Owl Management Plan* (https://www.nndfw.org/nnhp/docs_reps.htm) for relevant information on proper project planning near/within spotted owl protected activity centers and habitat.

C. Surveys – Biological surveys need to be conducted during the appropriate season to ensure they are complete and accurate please refer to NN Species Accounts https://www.nndfw.org/nnhp/sp_account.htm. Surveyors on the Navajo Nation must be permitted by the Director, NNDFW. Contact Jeff Cole at (928) 871-6450 for permitting procedures. Questions pertaining to surveys should be directed to the NNDFW the NNHP Zoologist for animals, and the NNHP Botanist for plants. Questions regarding biological evaluation should be directed to Jeff Cole at 871-6450.

D. Oil/Gas Lease Sales – Any settling or evaporation pits that could hold contaminants should be lined and covered. Covering pits, with a net or other material, will deter waterfowl and other migratory bird use. Lining pits will protect ground water quality.

E. Power line Projects – These projects need to ensure that they do not violate the regulations set forth in the *Navajo Nation Raptor Electrocution Prevention Regulations* found at https://www.nndfw.org/nnhp/docs_reps/repr.pdf.

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F. Guy Wires – Does the project design include guy wires for structural support? If so, and if bird species may occur in relatively high concentrations in the project area, then guy wires should be equipped with highly visual markers to reduce the potential mortality due to bird-guy wire collisions. Examples of visual markers include aviation balls and bird flight diverters. Birds can be expected to occur in relatively high concentrations along migration routes (e.g., rivers, ridges or other distinctive linear topographic features) or where important habitat for breeding, feeding, roosting, etc. occurs. The U.S. Fish and Wildlife Service recommends marking guy wires with at least one marker per 100 meters of wire.

G. San Juan River – On 21 March 1994 (Federal Register, Vol. 59, No. 54), the U.S. Fish and Wildlife Service designated portions of the San Juan River (SJR) as critical habitat for *Ptychocheilus lucius* (Colorado pikeminnow) and *Xyrauchen texanus* (Razorback sucker). Colorado pikeminnow critical habitat includes the SJR and its 100-year floodplain from the State Route 371 Bridge in T29N, R13W, sec. 17 (New Mexico Meridian) to Neskahai Canyon in the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian) up to the full pool elevation. Razorback sucker critical habitat includes the SJR and its 100-year floodplain from the Hogback Diversion in T29N, R16W, sec. 9 (New Mexico Meridian) to the full pool elevation at the mouth of Neskahai Canyon on the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian). All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of critical habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.

H. Little Colorado River - On 21 March 1994 (Federal Register, Vol. 59, No. 54) the U.S. Fish and Wildlife Service designated Critical Habitat along portions of the Colorado and Little Colorado Rivers (LCR) for *Gila cypha* (humpback chub). Within or adjacent to the Navajo Nation this critical habitat includes the LCR and its 100-year floodplain from river mile 8 in T32N R6E, sec. 12 (Salt and Gila River Meridian) to its confluence with the Colorado River in T32N R5E sec. 1 (S&GRM) and the Colorado River and 100-year floodplain from Nautuloid Canyon (River Mile 34) T36N R5E sec. 35 (S&GRM) to its confluence with the LCR. All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of Critical Habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.

I. Wetlands – In Arizona and New Mexico, potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the Navajo Natural Heritage Program (NNHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NNHP). The NNHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation. In Utah, the U.S. Fish & Wildlife Service's National Wetlands Inventory maps are not yet available for the Utah portion of the Navajo Nation, therefore, field surveys should be completed to determine whether wetlands are located close enough to the project site(s) to be impacted. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. For more information contact the Navajo Environmental Protection

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Agency's Water Quality Program.

J. Life Length of Data Request – The information in this report was identified by the NNHP and NNDFW's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is necessary. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on-site surveys. Also, because the NNDFW information is continually updated, any given information response is only wholly appropriate for its respective request.

K. Ground Water Pumping - Projects involving the ground water pumping for mining operations, agricultural projects or commercial wells (including municipal wells) will have to provide an analysis on the effects to surface water and address potential impacts on all aquatic and/or wetlands species listed below. NESL Species potentially impacted by ground water pumping: *Carex specuicola* (Navajo Sedge), *Cirsium rydbergii* (Rydberg's Thistle), *Primula specuicola* (Cave Primrose), *Platanthera zothecina* (Alcove Bog Orchid), *Puccinellia parishii* (Parish Alkali Grass), *Zigadenus vaginatus* (Alcove Death Camas), *Perityle specuicola* (Alcove Rock Daisy), *Symphyotrichum welshii* (Welsh's American-aster), *Coccyzus americanus* (Yellow-billed Cuckoo), *Empidonax traillii extimus* (Southwestern Willow Flycatcher), *Rana pipiens* (Northern Leopard Frog), *Gila cypha* (Humpback Chub), *Gila robusta* (Roundtail Chub), *Ptychocheilus lucius* (Colorado Pikeminnow), *Xyrauchen texanus* (Razorback Sucker), *Cinclus mexicanus* (American Dipper), *Speyeria nokomis* (Western Seep Fritillary), *Aechmophorus clarkia* (Clark's Grebe), *Ceryle alcyon* (Belted Kingfisher), *Dendroica petechia* (Yellow Warbler), *Porzana carolina* (Sora), *Catostomus discobolus* (Bluehead Sucker), *Cottus bairdi* (Mottled Sculpin), *Oxyloma kanabense* (Kanab Ambersnail)

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6. Personnel Contacts

Wildlife Manager

Leanna Begay
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Zoologist

Brent Powers
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bpowers@nndfw.org

Botanist

Nora Ventrella
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Biological Reviewer

Vacant
928.871.6450
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GIS Supervisor

Dexter D Prall
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7. Resources

Navajo Endangered Species List:

<https://www.nndfw.org/nnhp/Endangered.htm>

Species Accounts:

https://www.nndfw.org/nnhp/sp_account.htm

Biological Investigation Permit Application

https://www.nndfw.org/nnhp/study_permit.htm

Navajo Nation Sensitive Species List

<https://www.nndfw.org/nnhp/trackinglist.htm>

Various Species Management and/or Document and Reports

https://www.nndfw.org/nnhp/docs_reps.htm

Consultant List

https://www.nndfw.org/bi_consult_list_2022.pdf

Dexter D Prall, GIS Supervisor - Natural Heritage Program
Navajo Nation Department of Fish and Wildlife

Appendix B: USFWS IPaC List

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IPaC: Explore Location resources

IPaC**U.S. Fish & Wildlife Service**

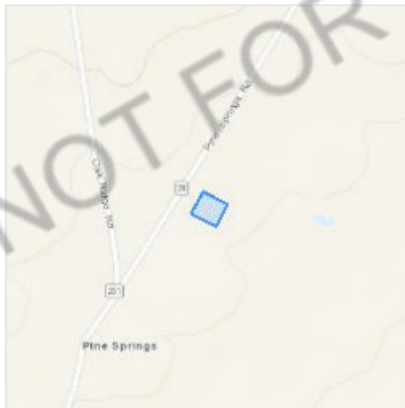
IPaC resource list

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

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

Location

Apache County, Arizona



Local office

Arizona Ecological Services Field Office

☎ (602) 242-0210

📠 (602) 242-2513

9878 North 31st Ave

<https://ipac.ecosphere.fws.gov/location/FBZLOLAXUNA3BL55BHPA4NL7BM/resources>

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#c3
Phoenix, AZ 85051-2517

NOT FOR CONSULTATION

Endangered species

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

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

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

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

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

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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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 <i>Canis lupus baileyi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3916	Endangered

Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Zuni Bluehead Sucker <i>Catostomus discobolus yarrowi</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3536	Endangered

Insects

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

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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

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

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 a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

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

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IPaC: Explore Location resources

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

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

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The [data](#) in this location indicates there are no migratory [birds of conservation concern](#) expected to occur in this area.

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There may be migratory birds in your project area, but we don't have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

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

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

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

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

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

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

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

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

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

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

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

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on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is

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the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

This location did not intersect any wetlands mapped by NWI.

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

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

Appendix D: Biological Resources Compliance Form

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NNDFW Review No. 23jefhg105

**BIOLOGICAL RESOURCES COMPLIANCE FORM
NAVAJO NATION DEPARTMENT OF FISH & WILDLIFE
P.O. BOX 1480, WINDOW ROCK, ARIZONA 86515-1480**

It is the Department’s opinion the project described below, with applicable conditions, is in compliance with Tribal & Federal laws protecting biological resources including the Navajo Endangered Species & Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection & National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish & Wildlife Service if a Federally-listed species is affected.

PROJECT NAME & NO.: Pine Springs Cell Tower Site (Previously 13etd01a3)

DESCRIPTION: Cellular One Communications proposes to construct and operate a telecommunications tower in Oak/Pine Springs Chapter of the Navajo Nation, Apache County, Arizona. Cellular One would construct a 180' self-supporting tower within a tract measuring 50' x 50'. Navajo Tribal Utility Authority (NTUA) will install a 215' powerline extension with a 30' right-of-way (ROW)
LOCATION:

REPRESENTATIVE: Rafael Rayna, Biologist - JE Fuller

ACTION AGENCY: Navajo Tribal Utility Authority (NTUA)

B.R. REPORT TITLE/ DATE/PREPARER: Request for Compliance/ 6 March 2023/JE Fuller

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3, Low Wildlife Sensitivity

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA
FEDERALLY-LISTED SPECIES POTENTIALLY IMPACTED: NA
OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA
AVOIDANCE / MITIGATION MEASURES: NA
CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: T. Kim Yazzie/13 JUNE 2023

COPIES TO: (add categories as necessary)

_____ _____

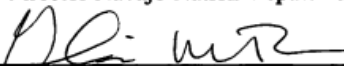
2 NTC § 164 Recommendation:

- Approval:**
- Conditional Approval (with memo):**
- Pending (with memo):**
- Disapproval (with memo):**

Categorical Exclusion (with request letter):
Pine Springs Cell Tower Site DR# 23jefhg105 (previously 13ETD01a3)

None (with memo):

Gloria M. Tom, Director Navajo Nation Department of Fish & Wildlife

Signature:  Date: 10/9/23

***I understand & accept the conditions of compliance, & acknowledge that lack of signature may be grounds for the Department not recommending the above-described project for approval to the Tribal Decision-maker.**

Representative's signature _____ Date _____

Appendix D: Cultural Resources Compliance Form

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HISTORIC PRESERVE

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CULTURAL RESOURCES COMPLIANCE FORM

THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT
PO BOX 4950
WINDOW ROCK, ARIZONA 86515

ROUTE COPIES TO:

ETD

NNHPD NO. **HPD-13-025**
OTHER PROJECT NO.: **ETD-12-011**

PROJECT TITLE: A Cultural Resource Inventory of Four (4) Cell Tower Sites and Power Line Extensions for CellularOne Communications in Various Chapters on the Navajo Nation, Arizona and New Mexico

LEAD AGENCY: BIA/NR

SPONSOR: Renee Higginbotham, CellularOne Communications, 1500 S. White Mountain Road Suite 103, Show Low, Arizona 88901

PROJECT DESCRIPTION: The proposed undertaking will involve the construction, operation, and maintenance of four self-supporting cellular towers along with powerline extensions to the cell tower sites. Ground disturbance will be intensive and extensive with the use of heavy equipment.

LAND STATUS: Navajo Tribal Trust, Private

CHAPTER: Oak/Pine Springs, Smith Lake, Pueblo Pintado, White Rock

LOCATION:

1. Pine Springs: T.23N, R.29E - Sec. 09; Pine Springs Quadrangle, Apache County, Arizona G&SRPM
2. Smith Lake: T.14N, R.12W - Sec. 05; Thoreau Quadrangle, McKinley County, New Mexico NMPM
3. Star Lake: T.19N, R.6W - Sec. 20; Rincon Marques, McKinley County, New Mexico NMPM
4. LaVida Mission: T.22N, R.13W - Sec. 25; LaVida Mission Quadrangle, San Juan County, New Mexico NMPM

PROJECT ARCHAEOLOGIST: Mathilda Burke
NAVAJO ANTIQUITIES PERMIT NO.: B12781

DATE INSPECTED: 11/28/12

DATE OF REPORT: 01/17/13

TOTAL ACREAGE INSPECTED: 3.7-ac.

METHOD OF INVESTIGATION: Class III pedestrian inventory with transects spaced 7.5 m. apart.

LIST OF CULTURAL RESOURCES FOUND:	(1) In-Use Area (IUA)
LIST OF ELIGIBLE PROPERTIES: (Potentially)	(1) IUA
LIST OF NON-ELIGIBLE PROPERTIES:	None
LIST OF ARCHAEOLOGICAL RESOURCES:	None


EFFECT/CONDITIONS OF COMPLIANCE: No historic properties affected.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7147.

FORM PREPARED BY: Tamara Billie

FINALIZED: February 5, 2013

Notification to Proceed Recommended: Yes No
Conditions: Yes No


Alan S. Downer, Navajo Nation Historic Preservation Officer
Date: 2/14/13

Navajo Region Approval: Yes No


BIA-Regional Director
Date: 2/26/13

TLN 2.22.13