Environmental Assessment
CellularOne Telecommunication Tower Site
Moncisco Mesa

CELLULARONE

ETD INC

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Environmental Assessment

October 2023

Moncisco Mesa Telecommunication Tower

Huerfano Chapter, Navajo Nation; San Juan County, New Mexico

Prepared for:

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Contents

List of Figures:

List of Tables:

Acronyms:

AQI	Air Quality Index
BE	Biological Evaluation
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
BRCF	Biological Resource Compliance Form
CE	Categorical Exclusion
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLUP	Community Land Use Plan
CRI	Cultural Resource Inventory
DNR	Navajo Nation Division of Natural Resources
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
GIS	Geographic Information Systems
GLDD	Navajo Nation General Land Development Department
MRDS	Mineral Resource Data System
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESL	Navajo Endangered Species List
NFD	Navajo Forestry Department
NHPA	National Historic Preservation Act
N.N.C.	Navajo Nation Code
NNDFW	Navajo Nation Department of Fish and Wildlife
NNEPA	Navajo Nation Environmental Protection Agency
NNHP	Navajo Natural Heritage Program
NNHHPD	The Navajo Nation Heritage and Historic Preservation Department
RCRA	Resource Conservation and Recovery Act
TES	Threatened, Endangered, or Sensitive
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFWS	US Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
WQ	Water Quality
WRCC	Western Regional Climate Center

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1.0 Introduction

1.1 Summary

This Environmental Assessment (EA) was prepared for *CellularOne* of Northeastern Arizona, a division of Smith Bagley Inc, of Show Low, Arizona. *CellularOne* is proposing to construct a 180-foot self-supporting telecommunications tower in the Huerfano Chapter of the Navajo Nation. The site is located on Tribal Trust Land in New Mexico, south of Farmington. *CellularOne* will apply for a telecommunications site lease from the Navajo Nation General Land Development Department (GLDD). In addition, *CellularOne* will apply for a license to operate the telecommunications tower from the Federal Communications Commission (FCC). This EA has been prepared to meet both agencies' requirements.

Under the *Navajo Nation General Leasing Regulations of 2013* (CO-53-13), The GLDD issues land leases and permits for agriculture, public relations, education, recreation, telecommunications, and residential sites on fee and trust land. The environmental review requirements are set forth in Subchapter 8 of the leasing regulations. The GLDD will approve or deny the Telecommunications Site Lease application.

All facilities constructed by or for the FCC licenses or owned by registrants must comply with the FCC's environmental regulations for implementing the National Environmental Policy Act (NEPA) process. *CellularOne* will submit an Environmental Notification with an 854 Form file number in accordance with *47 CR Part 1 Subpart I-Procedures Implementing NEPA*. The FCC will approve or deny a license to operate the telecommunications tower.

1.2 Purpose and Need

Broadband, or high-speed internet, is limited in many communities of the Navajo Nation such as the Huerfano Chapter. The purpose of the project is to allow *CellularOne* to expand infrastructure that will provide additional coverage and internet connectivity for this area. This will improve wireless and internet communication services for amenities like distance learning, telehealth, telework, e-commerce, public safety and emergency response, as well as general service for the chapter and travelers along the New Mexico State Route 371.

1.3 Location

The telecommunication tower site (project area) is located on Tribal Trust land in the Huerfano Chapter of Navajo Nation in northwestern New Mexico, about 115 miles from the Four Corner National Monument. The site can be accessed by an existing unnamed access road via New Mexico State Route 371 south from Farmington. Information regarding the site coordinates, legal description, and USGS reference maps can be found in **Table 1**. **Figure 1** presents a general location map of the project area.

Table 1. Project Location Information

Tower Site/Number	Size	Center Lat/Long Coordinates	Legal Description	USGS 7.5' Quadrangle
Moncisco Mesa/ NMSJ02333A	50-feet x 50-feet	36° 28'34.30"N 108°14'50.53"W	Section 20, T. 26 N, R. 13 W	Moncisco Wash, NM (1966)

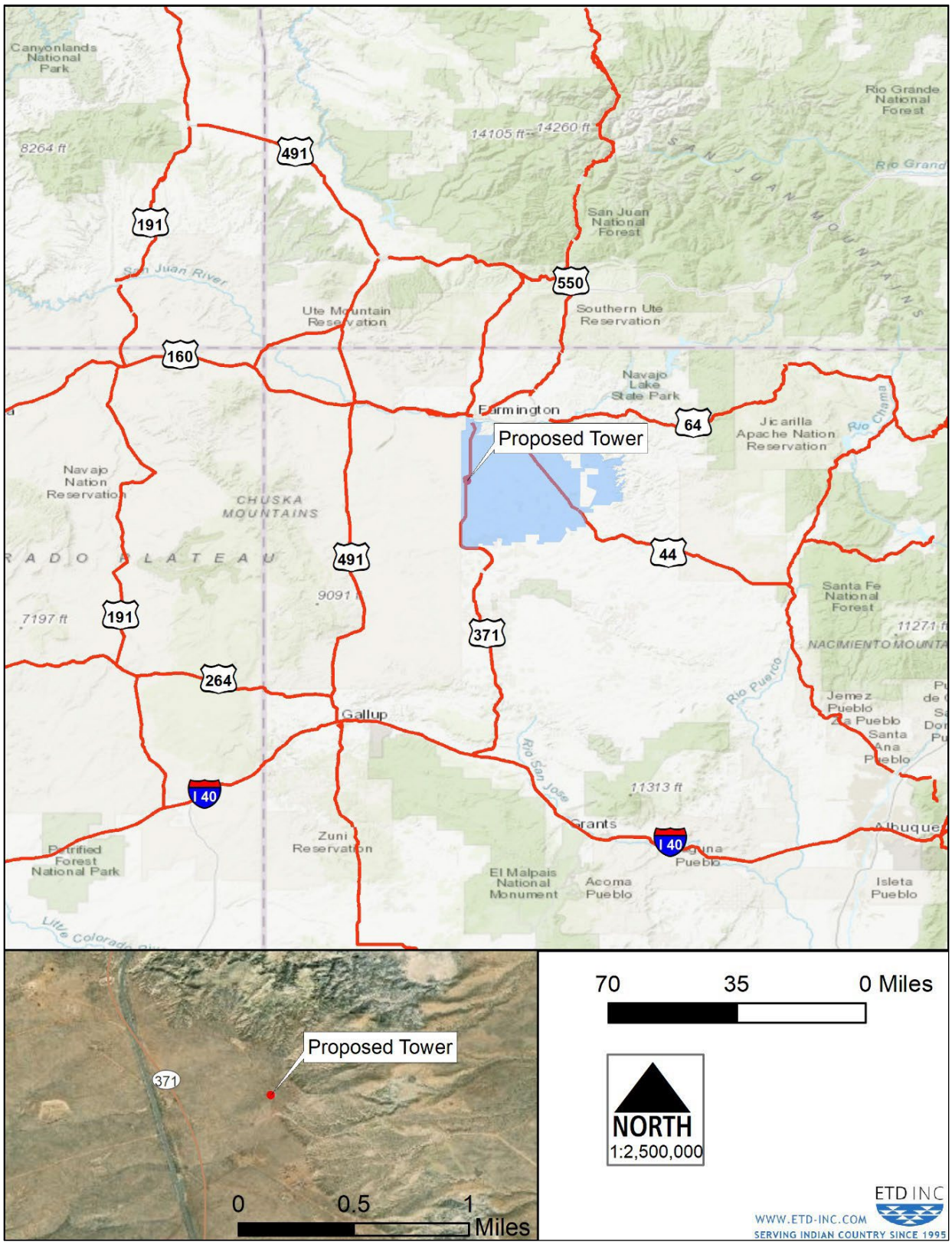

FIGURE 1. GENERAL LOCATION OF PROJECT AREA.

2.0 Proposed Action and No-Action Alternative

This chapter describes the Proposed Action and the No-Action Alternative. No other alternatives were identified for the project.

2.1 Proposed Action

Under the Proposed Action, CellularOne will construct a self-supporting 180-foot lattice telecommunications tower on a 50-foot x 50-foot lease area tract in northwest New Mexico. The project sponsor will work with the Navajo Tribal Utility Authority (NTUA) to acquire a power service line extension on site. Project activities will involve: (1) grading and clearing surface vegetation in the lease area; (2) erecting forms and pouring concrete pads in the 50-foot x 50-foot lease area; (3) installing the 180-foot self- supporting lattice tower; and (4) constructing a fence around the lease area. The estimated timeframe for completing the installation of the tower is one month. Construction equipment will include a mini-excavator, bobcat, and small crane for the tower. No borrow material will be necessary.

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.

2.2 No-Action Alternative

Under the No-Action Alternative, the land lease of the proposed tower site would not be approved and there would be no change or impact to the existing natural or human environment. CellularOne would continue to provide communication services in other areas of the Navajo Nation, but this area of the reservation would continue to have limited internet for services like distance learning, telehealth, e-commerce, and access to public safety services and emergency response.

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3.0 Affected Environment

3.1 Introduction

This chapter describes the current resources and conditions of the project area in order to establish baseline conditions upon which the potential impacts are evaluated in Chapter 4. Described resources and conditions include land, water, atmospheric, biotic, and cultural resources, socioeconomics, resource use patterns, and other values.

3.2 Land Resources

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

3.2.1 Geology and Mineral Resources

The project area rests on the San Juan Basin, which encompasses the northwestern corner of New Mexico and extends to the edges of southern Colorado and eastern Arizona. The San Juan Basin is a structural depression from the Laramide orogeny which is filled by 10,000 feet of Cambrian through Tertiary sedimentary rock sequences (Craigg, 2001). The project area is on the Nacimiento Formation from the early and mid-Paleocene area which is composed of Arroyo Chijuillta, Escavada, and Ojo Encino members and major constituents of conglomerates, sandstones, and mudstones. Specifically, the site lies within the gently sloping Avalon-Sheppard-Shiprock association. It is surrounded immediately by the older Ojo Alamo Formation, which ages on the Mesozoic/Cenozoic boundary. Further west is the older still Kirtland and Fruitland Formation from the Late Cretaceous Period (NMBG, 2003). This variance in stratigraphy exposure and uplifted nature of Moncisco Mesa is result of erosion of the younger sandstone and shale layers (Green, 1997).

The Navajo Nation Abandoned Mine Land Reclamation Department keeps record of abandoned uranium mines on Navajo Nation. According to this source, there are no active or abandoned uranium mines within 5 miles of the project area (NAMLRD,

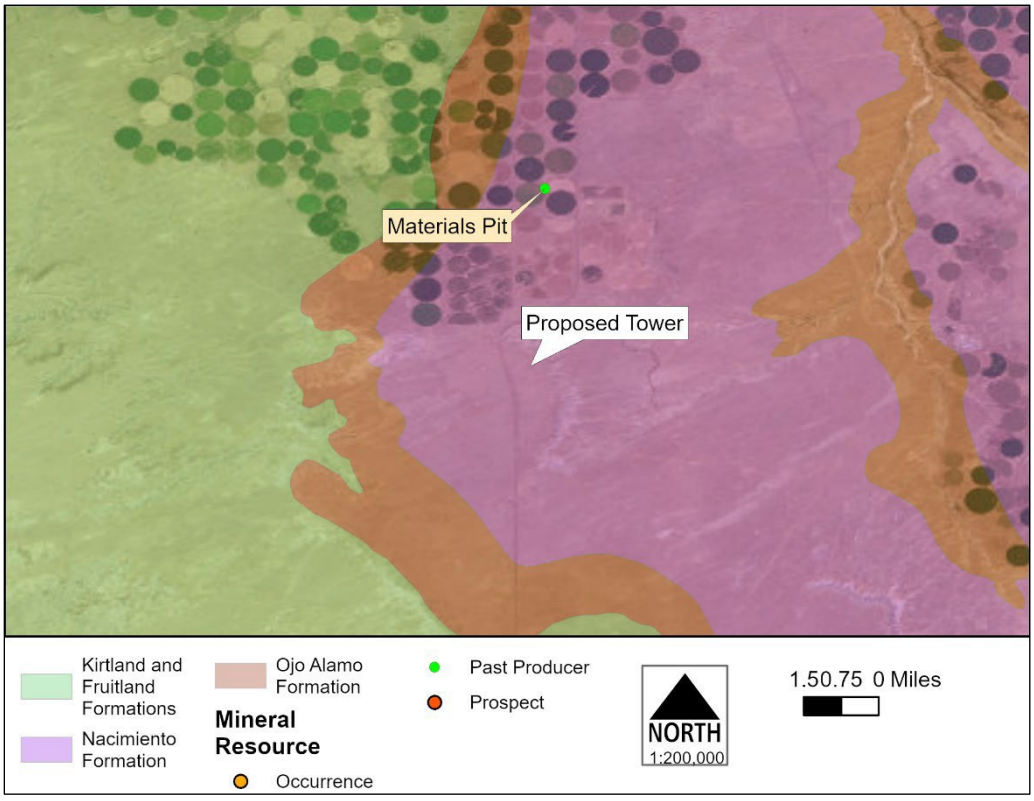

FIGURE 2. GEOLOGY AND MINERAL RESOURCES OF PROJECT AREA.

2022). The US Geologic Survey (USGS) maintains a database of mines in their Mineral Resource Data System (MRDS). According to this source, there is 1 mine within 5 miles of the proposed project site. It is a past-producing sand and gravel, construction materials pit, 3.5 miles north of the site (USGS, 2023). See **Figure 2** for the location of this site.

3.2.2 Topography

The project area rests atop Moncisco Mesa at an elevation of about 6,600 feet above main sea level (amsl), close to the eastern edge of the mesa. The eastern edges of the mesa slope gradually down at slopes of approximately 20%. North of the site, the San Juan River flows westward toward Utah and eventually flows into Lake Powell. The typical slope pattern of this region is northward toward the San Juan River. West of the site, the 10,000-foot-high Chuska Mountains and 8,000-foot-high Defiance Plateau span approximately 90 miles across the Arizona-New Mexico Border. To the east and south of the project area, the landscape encompasses several mesas, buttes, hills, and other mountainous features.

3.2.3 Soils

The U.S. Department of Agriculture (USDA) maintains data of soil types throughout the country through the Natural Resource Conservation Service (NRCS). This data is accessible through the USDA NRCS Web Soil Survey. According to this resource, the soil association of the proposed site is AZ-Avalon-Sheppard-Shiprock association, gently sloping. The three soil types in this association range from sandy loam, loam, and gravelly sand to sandy loam to loamy fine sand and loamy sand. None of these soil types are likely to flood or pond and are not classified as prime farmland (NRCS, 2019).

3.3 Water Resources

This section discusses the surface water, wetlands, ground water, and floodplains found in the region.

3.3.1 Surface Water and Wetlands

Rivers/Drainage Paths. Moncisco Mesa lies between the Gallegos Canyon watershed and Chaco River watershed. The eastern side of Moncisco Mesa drains to the San Juan River via drainage channels such as Moncisco Wash and Hugh Wash leading to Gallegos Canyon. The western side of the mesa drains to the Chaco River and eventually to the San Juan River via drainage channels in the Brimhall Wash and Pinabete Arroyo. See **Figure 3**.

Wetlands. According to the National Wetlands Inventory, wetlands near the project area include Pinabete Arroyo, Moncisco Wash, Gallegos Canyon, Hugh Wash, Brimhall Wash, and several other unnamed seasonally flooded, intermittent streambeds. There are also several unnamed semi permanently flooded riverine systems and ponds or springs in the project vicinity (USFWS, 2021).

3.3.2 Groundwater

Generally, the aquifers in the Colorado Plateau area are composed of permeable, moderately to well-consolidated sedimentary rocks. These rocks range in age from Permian to Tertiary and vary greatly in thickness, lithology, and hydraulic characteristics (Leving, G.W. et al., 1996). According to data prepared for the USEPA through an interagency agreement with the US Army Corps of Engineers, there are no wells within 1 mile of the project area (See **Figure 3**). Wells in the surrounding area pull water from the Ojo Alamo Sandstone and Quaternary Alluvium aquifers at depths from 135 to 347 feet. These wells are tribally owned and operated (USACE, 2019).

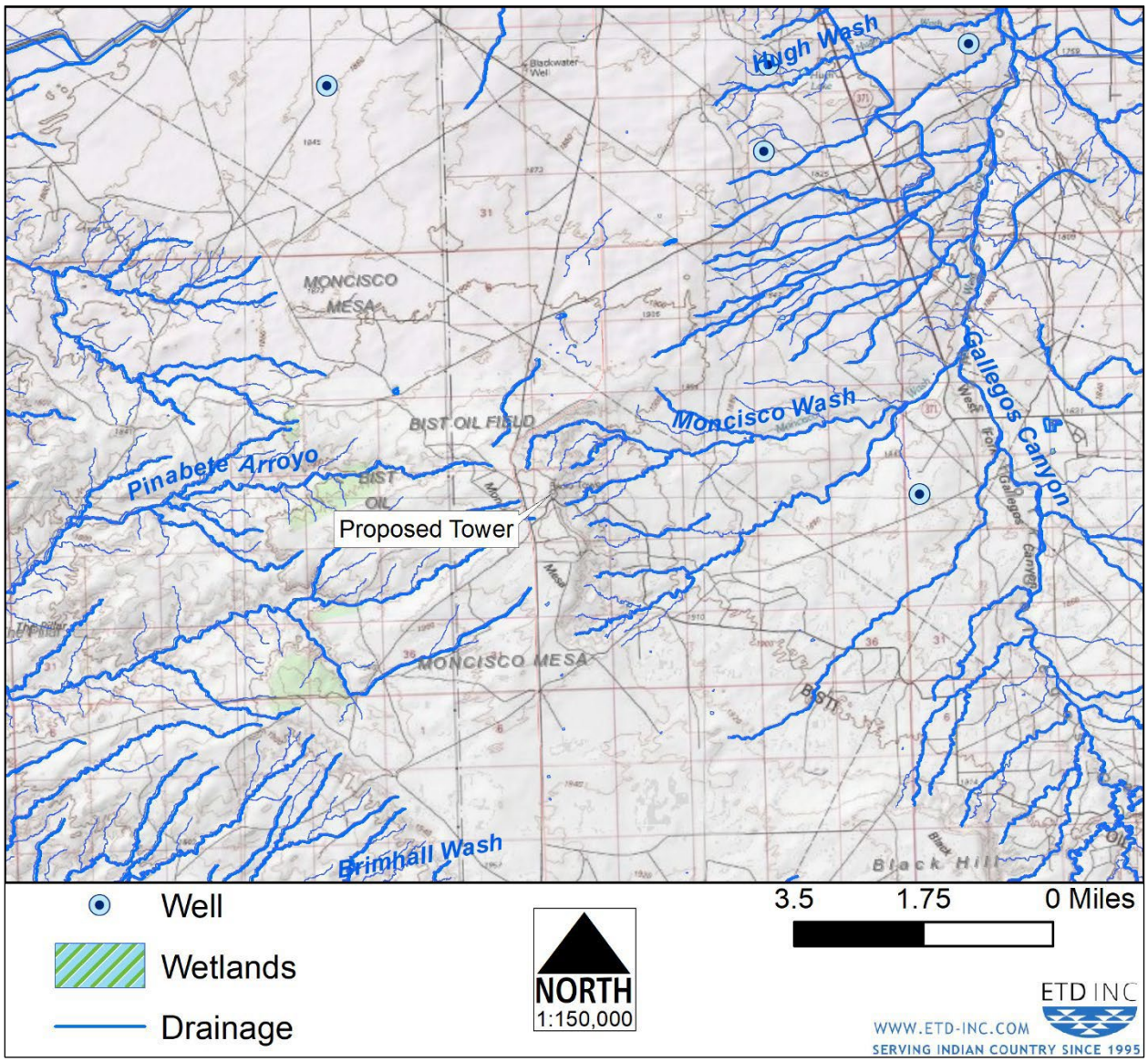

FIGURE 3. WATER RESOURCES OF PROJECT AREA.

3.3.3 Floodplains

The Federal Emergency Management Agency (FEMA) provides floodplain hazard maps called Flood Insurance Rate Maps (FIRMs), which are viewable on the National Floodplain Hazard Layer online viewer. Most of the Navajo Nation has not been surveyed by FEMA for floodplain hazards. The project area is within FEMA FIRM panel 35045C1675F. The project area is within an area of 0.2% annual chance flood: areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile. The nearest area of special flood hazard areas subject to inundation by the 1% annual chance flood is an arm of Moncisco Wash 0.8 miles north of the project area (FEMA, 2021).

3.4 Atmospheric Resources

This section describes the air quality/visibility and climate change conditions within the project area.

3.4.1 Air Quality/Visibility

Visibility is a critical resource value in the southwest, particularly because Navajo Nation is located near National Parks, recreation, and wilderness areas where visibility requirements are most stringent. The National Ambient Air Quality Standards (NAAQS) establishes ambient levels for criteria pollutants using health and welfare-based criteria. While air quality is "unclassified" for NAAQS on the Navajo Nation, it is assumed to be in-attainment of these standards according to maps posted on the USEPA website (USEPA, 2020). Information on this website is provided to USEPA by the Navajo Nation Environmental Protection Agency (NNEPA), who has air quality monitoring stations around the Navajo Nation that monitor for criteria pollutants under NAAQS. Information provided by this source supports the determination of "in-attainment" for the Huerfano Chapter (USEPA, 2021).

3.4.2 Climate Change

The Western Regional Climate Center maintains climate data summaries collected at a number of cooperative (coop) stations across that nation; the nearest co-op weather station is Shiprock, New Mexico (coop station #298284). Based on data from this station, the average annual precipitation in this region is 7.00 inches. The highest monthly average maximum temperature occurs in July, reaching 94.6°F, and the lowest monthly average minimum temperature occurs in January, reaching 15.7°F. Winds in this region are generally from the west and southwest (WRCC, 2021).

Human activities (primarily the burning of fossil fuels) have fundamentally increased the concentration of greenhouse gases in Earth's atmosphere, warming the planet (NASA, 2021). 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 the 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).

3.5 Biotic Resources

This section discusses vegetation, wildlife, and threatened, endangered, and sensitive (TES) species within the project area. A Biological Evaluation (BE) was conducted by Jean Marie Rieck, Senior Wildlife Biologist of JE Fuller Hydrology & Geomorphology in April of 2023, which is summarized here.

3.5.1 Vegetation

The project area falls within the Plains and Great Basin Grassland biotic community. This community is characterized by mixed or short-grass communities. Species like blue grama and other perennial grasses dominate the landscape in scattered populations. Certain shrubs like saltbush, sagebrush, and winterfat can also be found, but are much less prominent. Like other grassland communities, it is at risk of invasion from junipers. The following plant species were identified within the project area; four-wing saltbush, Green's rabbitbrush, Cutler's jointfir, broom snakeweed, rat-tail cholla, prickly pear, narrowleaf, wooly milkvetch, divergent wild buckwheat, bulbous Venus-parsley, blue grama, Indian ricegrass, James' galleta, and spike dropseed. Additionally, Russian thistle, a non-native, invasive species, was identified within the project area (JE Fuller, 2023).

3.5.2 Wildlife

The project area provides potential habitat for a variety of terrestrial wildlife species. Bird species observed include common raven, horned lark, American kestrel, and an unknown sparrow. Multiple kangaroo rat and mouse burrows were observed in and around the site. The site appeared to be grazed (JE Fuller, 2023).

3.5.3 TES Species

Section 7 of the Federal Endangered Species Act (ESA) requires that federally funded projects and federally approved projects must have a determination whether the continued existence of Federally listed endangered or threatened species is likely to be affected and whether it will result in their critical habitats being destroyed or adversely modified. Similarly, the Navajo Endangered Species List (NESL) requires comparable determination for tribally listed species. The Navajo Nation Department of Fish and Wildlife (NNDFW) is responsible for ensuring compliance with the NESL, ESA, and laws that protect birds under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA).

JE Fuller sought information regarding special-status species that are known or have the potential to occur in or around the project area under NNDFW Data Request #23etd101. The list of TES species obtained from NNDFW included species listed on the Navajo Endangered Species List (NESL) and species listed by the U.S. Fish and Wildlife Service (USFWS) as threatened, endangered, or candidate under the ESA, as well as birds protected under the MBTA and BGEPA (**Appendix A**). A list of threatened, endangered, or candidate species was also obtained from the USFWS Information Planning and Consultation System (IPaC) (**Appendix B**).

The species list obtained from NNDFW (DR #23etd101) included potential and known federally and tribally species from the proposed Moncisco Mesa site as well as two other sites proposed in nearby areas. The species are delineated by site location, and status and listing of species. The full list of species for all three sites is presented in **Appendix A and B.** indicated that the ferruginous hawk (Buteo regalis) is known to occur within 1 mile of the Moncisco Mesa site and San Juan milkweed (Asclepias sanjuanensis) is known to occur between 1 and 3 miles of the site (NNDFW 2023). Special status species listed by NNDFW as potentially occurring in the vicinity of the Moncisco Mesa site include the following: golden eagle (Aquila chrysaetos), ferruginous hawk (Buteo regalis), burrowing owl (Athene cunicularial), mountain plover (Charadrius montanus), southwestern willow flycatcher (Empidonax traillii extimus), black-footed ferret (Mustela nigripes), Aztec gilia (Aliciella formosa), San Juan milkweed (Asclepias sanjuanensis), and Brack's hardwell cactus (Sclerocactus cloveriae ssp. brackii). The USFWS IPaC list identified New Mexico meadow jumping mouse (Zapus hudsonius luteus), southwestern willow flycatcher (Empidonax traillii extimus), yellow-billed cuckoo (Coccyzus americanus), Colorado

pikeminnow (Ptychocheilus lucius), razorback sucker (Xyrauchen texanus), Mancos milkvetch (Astragalus humillimus), Mesa Verde cactus (Sclerocactus mesaeverdae), and monarch butterfly (Danaus plexippus) as having potential habitat in the vicinity of the project area.

Existing literature was reviewed for each species to determine whether specific species and/or their habitat may be affected by the proposed project. JE Fuller conducted a habitat evaluation survey of the proposed project area on March 31, 2023, to assess habitat and determine potential effects, if any, that the Proposed Action may have on special-status species listed by NNDFW and USFWS. The habitat evaluation survey was conducted within a 200-foot buffer of the 50-foot x 50-foot lease area. Following survey, the southwestern willow flycatcher, New Mexico meadow jumping mouse, yellow-billed cuckoo, Colorado pikeminnow, razorback sucker, Mancos milkvetch, and Mesa Verde cactus were eliminated from further analysis due to lack of suitable habitat near the project area. Species listed by USFWS and NNDFW were evaluated and are listed in **Table 2**. Rows highlighted in blue indicate species that were retained for detailed analysis. A discussion of the potential effects of the Proposed Action for each species retained for analysis is provided in **Chapter 4**. The Navajo Nation is divided into six types of wildlife areas to direct development to areas where impacts to wildlife and their habitats will be less significant. The project area is located within land designated as Area 3, which is considered to be a "less sensitive area" with few restrictions on development (NNDFW, 2023).

Table 2. TES Species and Potential Habitat Within Project Area (JE Fuller, 2023)

Species	Status	Habitat Analysis	Occurs Within 1-3 Miles of Project
Golden Eagle *(Aquila chrysaetos)*	NESL G3, BGEPA	Golden eagle requires tall trees or cliff ledges for nesting purposes and uses forest clearings and open grasslands for foraging. This species generally occupies 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 elevation (AGFD 2022; Mikesic 2008). This species is listed as occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis**.	Yes, listed as potentially occurring in vicinity Moncisco site.
Ferruginous Hawk (*Buteo regalis*)	NESL G3	Ferruginous hawks are found in badlands, flat or rolling desert grasslands and desert scrublands. Their distribution extends from North Dakota to northern Texas and west to Nevada. On the Navajo Nation, ferruginous hawks can be found year-round. Nesting habitat includes small buttes, short cliffs (<30 meters in height), or rock pinnacles, and occasionally in the tops of trees (Mikesic 2008, AGFD 2013). This species is listed as occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis**.	Yes, listed as occurring within 1 mile of the Moncisco site.
Burrowing Owl (*Athene cunicularia*)	NESL G4	A suitable nest burrow is a critical requisite for burrowing owls, and the species rarely dig their own burrows (Mikesic 2008). Burrowing owls favor areas of flat open ground with very short grass or bare soil; and prairie-dog towns or other burrowing fossorial mammal populations that prepare ideal habitat for this owl (Audubon 2022; AGFD 2022). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis.**	No, but listed as potentially occurring in the vicinity of the Moncisco site.
Mountain Plover (*Charadrius montanus*)	NESL G4	Mountain plover is listed as potentially occurring within or near the project area but is not documented as occurring within 3 miles of the project area (NNDFW 2023). This species typically nests in flat to slightly rolling expanses of grassland, semi-desert, or badland, in areas with short, sparse vegetation, extensive bare ground, and locations with ground disturbance (e.g., grazed) (Mikesic 2008). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis**.	No, but listed as potentially occurring in the vicinity of the Moncisco site.

Southwestern willow flycatcher (*Empidonax traillii extimus*)	NESL G2, LE	Southwestern willow flycatcher is a riparian obligate found in dense vegetation in Arizona, New Mexico, Colorado, California, Nevada, and Utah (Mikesic 2008h). Breeding may occur throughout Navajo Nation and is documented as occurring along the San Juan and Colorado Rivers. Willow flycatchers nest in dense riparian vegetation, near surface water or saturated soil in native stands of willows or in exotic stands of tamarisk and Russian olive (AGFD 2022; Mikesic 2008). Vegetation is usually greater than 3 meters tall and has a dense (thicket) structure with multi-layered closed canopy. There are no riparian or streamside habitats within the project area that represent suitable habitat for the species (AGFD 2002; Mikesic 2008) and all riparian habitats are located farther than 0.25-mile from tower site. **No further analysis of this species is provided.**	No, but listed as potentially occurring in the vicinity of the Moncisco sites.
Yellow-billed cuckoo (*Coccyzus americanus*)	LT	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 (AGFD 2022). 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 (Mikesic 2008). There are no suitable riparian or streamside habitats within the project area that represent suitable habitat for the species and all riparian habitats are located farther than 0.25-mile from tower site. ***No further analysis of this species is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.
Black-footed Ferret (*Mustela nigripes*)	NESL G1, ESA LE	Black footed ferrets are limited to open habitat consisting of grasslands, steppe, and shrub steppe. Resting and birthing sites are in underground burrows, generally excavated by prairie dogs (USFWS 2022; NatureServe 2022b). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis in this BE**. However, it should be noted that this species is also listed as extirpated on the Navajo Nation (NNDFW 2020).	No, but listed as potentially occurring in the vicinity of the Moncisco site.
New Mexico meadow jumping mouse (*Zapus hudsonius luteus*)	ESA LE	New Mexico meadow jumping mouse nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 ft. It typically occupies two riparian community types: 1) persistent emergent herbaceous wetlands (i.e., beaked sedge and reed canary grass alliances); and 2) scrub-shrub wetlands (USFWS 2022). No wetland or riparian areas are within or near the cell tower sites. ***No further analysis of this species is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.
Colorado pikeminnow (*Ptychocheilus lucius*)	ESA LE	On the Navajo Nation, Colorado pikeminnow is found throughout the San Juan River from Shiprock to Lake Powell. Adults use backwaters and flooded riparian areas during spring runoff and migrate large distances to spawn in riffle-run areas with cobble/gravel substrates primarily downstream of the Four Corners area. Irrigation canals and ponds connected to San Juan River may be potential habitat. There are no perennial streams within or near the project area that represent suitable habitat for the species (Mikesic 2008). ***No further analysis of this species is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.
Razorback sucker (*Xyrauchen texanus*)	ESA LE	Razorback sucker is found in the Colorado River and a few of its warm-water tributaries: Lake Mohave, Upper Green River, and Lower Yampa River. It is rare along the mainstem Colorado River in Marble Canyon and the mouth of the Little Colorado River, the San Juan arm of Lake Powell, and upstream within the San Juan River. The species generally uses mainstream portions of rivers, pre- and post-spawning suckers mostly use low-flow areas, but shallow to deep runs over sandbars and seasonally-flooded shorelines are also important. There are no perennial streams within or near the project area that represent suitable habitat for the species (Mikesic 2008). ***No further analysis is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.

Aztec Gilia (*Aliciella formosa*)	NESL G4	Aztec gilia is endemic to soils of the Nacimiento Formation and is found in salt desert scrub communities from 5,000 to 6,400 feet amsl in San Juan County, New Mexico (Roth 2001). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis.**	No, but listed as potentially occurring in the vicinity of the Moncisco site.
San Juan Milkweed (*Asclepias sanjuanensis*)	NESL G4	San Juan milkweed is found mostly in sandy or sandy loam soils in pinyon juniper woodlands and Great Basin grassland communities. Known populations occur from 5,000 to 6,200 feet amsl east of U.S. HWY 666, south of the San Juan River, and just south of the San Juan County line. Often found in disturbed sites (Roth 2001). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis.**	Yes, listed as occurring within 3 miles of the Moncisco site.
Brack's Hardwell Cactus *(Sclerocactus cloveriae ssp. brackii)*	NESL G3	Brack's hardwall cactus is found primarily in desert scrub and scattered juniper communities and on sandy clay hills of the Nacimiento Formation at 5,000 to 6,000 feet amsl (Roth 2001). This species is listed as potentially occurring in the vicinity of the project area (NNDFW 2023) and is **retained for analysis.**	No, but listed as potentially occurring in the vicinity of the Moncisco site.
Mancos milkvetch (*Astragalus humillimus*)	ESA LE, NESL G2	Mancos milkvetch is found on large, nearly flat areas of exfoliating whitish-tan colored sandstone, in small depressions and sand filled cracks on or near ledges and mesa tops in slickrock communities of Point Lookout and Cliffhouse Sandstone in San Juan County, New Mexico, Palmer Mesa east to the hogback area and south of the San Juan River, to a hogback east of Little Water. Also found on hogback north of Sanostee (Roth 2001). No suitable flat depressions in sandstone on or near ledges occur within the tower sites. ***No further analysis of this species is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.
Mesa Verde cactus (*Sclerocactus mesaeverdae*)	ESA LT, NESL G2	Salt-desert scrub communities, typically in the Fruitland and Mancos shale formations, but also in the Menefee Formation overlaying Mancos shale. It is most frequently found on the tops of hills or benches and along slopes (Roth 2001). Known populations occur between 4,900 and 5,500 feet. None of these geologic formations occur within the project areas and the project sites are higher in elevation than the known distribution of this species. ***No further analysis of this species is provided.***	No, but listed as potentially occurring in the vicinity by USFWS.
Monarch Butterfly *(Danaus plexippus)*	ESA C	Breeding areas 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 (NatureServe 2022). The monarch is listed as potentially occurring within or near the project area (USFWS 2023). No milkweed species were identified but various species of milkweed are known to occur within 20 kilometers of two of the project sites. Therefore, this species is **retained for analysis.**	No, but listed as potentially occurring in the vicinity by USFWS.

G2: Endangered; in jeopardy
G3: Endangered; likely to be in jeopardy in the foreseeable future
G4: Candidate for G2 of G3
ESA C: Candidate
LE: Listed as Endangered
LT: Listed as Threatened
BEGPA: Bald & Golden Eagle Protection Act

3.5.4 Agriculture and Livestock

Family farms and livestock grazing are a significant part of the agricultural activities within the Navajo Nation. The Huerfano Chapter hosts most operations of the Navajo Agricultural Product Industry and Navajo Indian Irrigation Project. These operations cover tens of thousands of acres and provide vital

employment opportunities for the community (Navajo Chapters, 2023). According to the 2017 Census of Agriculture, there are 167 farms and ranches within the Chapter. The majority of these are livestock ranches, specifically for cattle, sheep, horses, and goats. The 9 farms that produce hay, however, supply 49.7% of the Eastern Agency's sales (USDA-NASS, 2017). There are numerous agricultural plots north of the project area.

3.6 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, 2022). 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 Resource Inventory (CRI) was conducted under NNHHPD permit number B22999 by Mathilda Burke, Archaeologist of MBurke Consulting in April of 2023 involving a records search, consultation with the NNHHP Traditional Cultural Program, field survey, and preparation of a report. The records search indicated that 5 cultural resource projects were conducted within 100-meters of the project and no sites were recorded. A review of NNHHPD Traditional Cultural Program files revealed that no known TCPs occur within 2 miles of the project area; it was concluded that the project will have no effect on any TCPs following consultation with the Traditional Cultural Program (MBurke, 2023).

A Class III pedestrian inventory was conducted using parallel transects spaced no more than 7.5 meters apart. A cultural survey was conducted on the 50-feet x 50-feet project area; a 100-foot radius was also surveyed around the project area, which provided 100% coverage of the project area. An ethnographic interview was conducted with Roland Tso, Many Farms Chapter Grazing Official, Devon Begay, Chapter President, and Stephanie Woodie, Huerfano Land Board Member concerning burials, sacred places, and plant/herb gathering areas in order to determine if there were any potential TCPs in or near the project area. Each stated the Chapters need for the Telecommunication tower due to the lack of cellular services in areas in the Chapter. These services would help provide cellular services for emergency response and being able to provide students with mobile services or virtual learning (MBurke, 2023).

3.7 Socioeconomics

This section discusses demographics, economics, and community infrastructure in the project area.

3.7.1 Demographics

Members of the Navajo Nation live a combination of traditional and modern lifestyles and their language is still thriving. Many have contemporary occupations both on and off the Navajo Nation while maintaining aspects of their culture, customs, and traditional lifestyles. Influences on sociocultural conditions include cultural beliefs and values, socioeconomic trends including poverty, limited employment opportunities, high unemployment, housing shortages, and lack of infrastructure (BOR, 2016). **Table 3** presents

population summaries of the Huerfano Chapter in relation to Navajo Nation, State of Arizona, and the United States. According to the American Community Survey (ACS) 5-year estimate tables of the U.S. Census Bureau, 94.9% of the population of Huerfano identify as Native American. The population of Huerfano has decreased over the past 10 years, with the loss of 252 people. There are 835 households in total across Huerfano, with an average of 3.39 people per household, which is similar to that of Navajo Nation at 3.45 but higher than Arizona at 2.65 and the U.S. average of 2.6 people per household. The average median age of Huerfano is 32.7, compared to the U.S. median age of 38.8 (US Census Bureau, 2020).

Table 3. Population Summaries (U.S. Census Bureau, 2020)

	2010	2020	Average Annual Growth (%)	Median Age	Persons per Household
Huerfano	2,633	2,381	-9.6%	32.7	3.39
Navajo Nation	150,011	140,766	-6.1%	33.3	3.45
State of Arizona	6,392,017	7,151,502	11.9%	37.9	2.65
US National Average	308,745,538	331,449,281	7.4%	38.8	2.60

3.7.2 Economics

Table 4 presents the economic summaries for the Huerfano Chapter in comparison to Navajo Nation, State of Arizona, and United States averages. According to the ACS 5-year estimate tables of the U.S. Census Bureau, the major industry in Huerfano is educational services, health care, and social assistance, like that of Navajo Nation, Arizona, and United States. Other income sources include rug and jewelry making and food vending Huerfano experiences a significantly lower unemployment rate at 4.6% than Navajo Nation as a whole (13.5%), Arizona (5.8%) and United States (6.3%). The average median household income of Huerfano is $27,772, which is lower than that of the Navajo Nation at $30,275, and significantly lower than the State of Arizona at $69,056, and the U.S. at $69,717. The poverty rate of Huerfano (27.2%) is lower than that of Navajo Nation (33.9%), but higher than the state of Arizona (9.1%) and United States (9.1%) (US Census Bureau, 2020).

Table 4. Economic Summaries (U.S. Census Bureau, 2020)

	Major Industry (%)	Unemployment Rate (%)	Poverty Rate (%)	Median Household Income ($)
Huerfano	Educational services, health care, and social assistance (17.7%)	4.6	27.2	27,772
Navajo Nation Total	Educational services, health care, and social assistance (42.3%)	13.50	33.9	30,275
State of Arizona	Educational services, health care, and social assistance (22.0%)	5.8	9.1	69,056
U.S. National Average	Educational services, health care, and social assistance (23.5%)	6.3	9.1	69,717

3.7.3 Community Infrastructure

Utilities. NTUA is the primary utility provider for power, water, and wastewater across the Navajo Nation. Power Lines currently run near to the tower sites. The project sponsor will work with NTUA to obtain a service line extension to the tower sites. No wastewater utilities are required for the proposed project.

Transportation Networks. Roads are an especially important infrastructure and stretch 14,221 miles across the Navajo Nation. Major interstate and U.S. Highways on the reservation include Interstate 40, U.S Highways 64, 89, 89A, 191, 163, 160, and 491. Roads also include State Highways and Roads, BIA Roads, paved and unpaved Tribal Roads, county roads, and several unmarked and undocumented dirt roads. Roads are managed by Navajo Nation Department of Transportation, Bureau of Indian Affairs Department of Transportation, Counties, and the Arizona Department of Transportation. Major roads within the Huerfano Chapter include US Rout 550, state route 371, and Navajo Routes 7023, 7010, 7425, and 7225.

Educational Facilities. Educational institutions within the chapter include the Bloomfield Early Childhood Center and High School, Charlie Y Brown High School, and Naaba Ani Elementary School.

3.7.4 Environmental Justice

Environmental justice has been defined as the pursuit of equal justice, protection, and involvement under law for all environmental status and regulations without discrimination based on race, ethnicity, and/or socioeconomic status (USEPA, 2022). As described in **section 3.7.1**, The population of the Huerfano Chapter is primarily Navajo or Native American. The project is in an area of high poverty and a high proportion of minority populations. No environmental justice issues have been identified.

3.8 Resource Use Patterns

This section discusses resource use patterns such as recreation, hunting, fishing, gathering; timber harvesting; and land use plans.

3.8.1 Recreation, Hunting, Fishing, and Gathering

The NNDFW oversees outdoor recreation, fishing, and hunting on the Navajo Nation. There are no established hiking trails or other outdoor recreation areas in the vicinity of the project site. There are no lakes that offer fishing opportunities near the project area; the nearest fishing lake is Morgan Lake, 20 miles northwest of the site. The project area is within NNDFW hunt unit 14, but the area is unlikely to offer opportunities for hunting as the area is very exposed and near the large agricultural areas and populated areas to the north.

3.8.2 Timber Harvesting

The Navajo Nation Forestry Department (NNFD) is responsible for regulating the Nation's forests. There is currently no commercial or industrial timber harvesting on the Navajo Nation, except for individual firewood collection. NNFD issues permits for said firewood collection. The project area is not near any forestlands and vegetation found within the project area consists of grass, cactus, and shrub species (JE Fuller, 2023).

3.8.3 Land Use Plans

The Navajo Nation passed the Navajo Nation Local Governance Act (Title 26 of the Navajo Nation Code) to recognize Chapter-level governance on the Nation. Under this act, Chapters can develop Community-Based Land Use Plans (CLUPs) that can be used to administer land. The Huerfano Chapter has not established an LGA certified CLUP.

3.9 Other Values

This section discusses various other characteristics involved throughout the project area, including wilderness; noise and light; visual setting; public health and safety; Indian trust assets; and hazardous waste.

3.9.1 Wilderness

In 1964, the Wilderness Act was passed, establishing a network of over 800 federally designated wilderness areas in the National Wilderness Preservation System. This act essentially prohibits commercial activities and infrastructure additions from occurring in wilderness areas and aims to preserve and protect the natural ecosystems and wild areas "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain" (16 U.S.C. 1131-1136). The nearest designated wilderness area is the Bitsi/De-Na-Zin Wilderness, which is 12 miles south of the project area. This rolling landscape of badlands and unique rock formations is managed by the Bureau of Land Management.

3.9.2 Noise and Light

The Noise Control Act of 1972 (42 U.S.C. §4901 et seq.) was passed to preserve the health and welfare of the U.S. population, especially in urban areas. Noise restrictions and orders are largely controlled by State and Local Governments. The Navajo Nation does not have any noise regulations or requirements that would apply to this project. Sources of noise at the project area include natural phenomena such as wind, thunder, and rain as well as manufactured noise such as traffic along route 371, and activities at agricultural areas to the north.

3.9.3 Visual Setting

According to the Navajo Nation's Environmental Protection Act (§903): "The Navajo Nation shall employ its governmental authority pursuant to section 2 hereof, using all practicable means consistent with other essential government functions, for the following purposes: … (B) To assure for all residents and/or visitors to the Navajo Nation a safe, healthful, productive, aesthetically pleasing and culturally appropriate environment; … (F) To preserve important... natural aspects of the Navajo Nation." The surroundings of the project area include disturbances such as grazing, paved and unpaved roads, and three existing towers in the vicinity.

3.9.4 Public Health and Safety

The Navajo Division of Public Safety provides first response services within the exterior boundaries of the Navajo Nation. The Shiprock Police Department provides these services in the Huerfano Chapter. Additionally, they provide the following programs: correctional services, internal affairs, police services, criminal investigation, emergency management, fire and rescue, and emergency medical. BIA offices in Shiprock provide wildfire fighting services. Healthcare facilities used in the community include the San Juan Regional Medical Center and the Dzilth-Na-O-Dith-Hle Health Clinic.

3.9.5 Indian Trust Assets

The status of the project area is under Tribal Trust. Use and delegation of trust lands require approval by the Navajo Nation General Land Development Department (GLDD). NNEPA requires the BIA to abide by Navajo Nation regulations and policies to minimize and/or remediate environmental damage within tribal trust lands (4 N.N.C. 9).

3.9.6 Hazardous Waste

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 recorded and tracked by the USEPA. RCRA and CERCLA share jurisdiction with respect to hazardous materials, and Underground Storage Tanks (USTs) containing petroleum products RCRA gives USEPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA Subtitle C addresses hazardous waste; Subtitle D addresses non-hazardous solid waste, and Subtitle I addresses USTs. CERCLA was passed in 1980 in response to unacceptable hazardous waste practices and management occurring in the 1970s and authorizes cleanup responses in two ways: short-term removal and long-term environmental remediation. These actions can be conducted only at sites listed on USEPA's National Priorities List. Sites managed under this program are referred to as "Superfund" sites. TSCA authorizes USEPA to issue rules requiring the testing of specific chemicals and to establish regulations that restrict the manufacturing, processing, distribution, use, and disposal of chemicals and mixtures.

USEPA provides an online tool for identifying proximity of controlled sites and environmental concerns to areas of interest. According to this webpage and field observation, no RCRA, CERCLA, or TSCA site occur within a mile of the project area. The nearest site is the Navajo Agricultural Products Industry fertilizer plant, which is 6 miles south of the site (USEPA, 2022). See **Appendix C**, for the detailed report of the project area.

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4.0 Environmental Consequences

This chapter discusses short-term and long-term impacts and effects of the Proposed Action and the No-Action Alternative on the resources described in **Chapter 3**. Impacts or effects can be direct or indirect and can be cumulative. Direct effects generally occur at the same time and place as the action. Indirect effects occur later in time or farther away in distance but are still reasonably foreseeable. This chapter also identifies mitigation measures and Best Management Practices (BMPs) aimed at minimizing, mitigating, or eliminating action-caused impacts and/or compensating for their impact and maintaining compliance with applicable laws and regulations.

4.1 Land Resources

Geology, topography, and mineral resources will not be impacted under the Proposed Action or the No-Action Alternative. Impacts on soils are described below.

4.1.1 Soils

Under the Proposed Action, there will be minor, short-term impacts of soil erosion or runoff from the use of heavy machinery used for clearing and grading during construction of the tower. This impact will cease following construction.

Under the No-Action Alternative, there will be no change and therefore no impact on soils of the project area.

4.1.2 Mitigation Measures and BMPs

Soil erosion and sedimentation is controlled under NNEPA to ensure compliance with the Navajo Nation Surface Water Quality Standards (NNSWQS). The Proposed Action will not disturb 1 acre or more and is exempt under Section 402 of the Clean Water Act (CWA) (33 USC §1251 et seq.) and the Navajo Nation Clean Water Act (Title 4, NNC), from obtaining a National Pollutant Discharge Eliminating System (NPDES) Construction General Permit. BMPs such as fugitive dust suppression can minimize erosion on site.

4.2 Water Resources

Groundwater, floodplains, and wetlands will not be impacted under the Proposed Action or No-Action Alternative. Impacts on surface waters are described below.

4.2.1 Surface Water

Under the Proposed Action, there will be minor, short-term impacts on surface water due to erosion and runoff into nearby drainage channels associated with construction and ground disturbing activities. This impact will cease following construction.

4.2.2 Mitigation Measures and BMPs

Soil erosion and sedimentation is controlled under NNEPA to ensure compliance with the Navajo Nation Surface Water Quality Standards (NNSWQS). The Proposed Action will not disturb 1 acre or more and is exempt under Section 402 of the Clean Water Act (CWA) (33 USC §1251 et seq.) and the Navajo Nation Clean Water Act (Title 4, NNC), from obtaining a National Pollutant Discharge Eliminating System (NPDES) Construction General Permit. BMPs such as fugitive dust suppression can minimize erosion on site.

4.3 Atmospheric Resources

Climate will not be impacted under the Proposed Action or the No-Action Alternative. Impacts on air quality/visibility are described below.

4.3.1 Air Quality/Visibility

Under the Proposed Action, there will be short-term, minor impacts to air quality and visibility as increased levels of dust and emissions are caused by construction activities. These impacts will subside following construction.

4.3.2 Mitigation Measures and BMPs

Activities that increase the generation of fugitive dust above natural levels are road building, tillage, construction activities, etc., and the disturbance of bare soil by wheels, blades, etc. (EPA, 2009). Control techniques for fugitive dust include watering, dust abatement, chemical stabilization, and windbreaks.

4.4 Biological Resources

Under the Proposed Action, project activities include clearing a small amount of vegetation at the site. The impacted areas will likely recover soon after construction with reseeding mitigation measures. Therefore, the impact on the vegetation will be minimal and short-term. Construction activities will initially create some noise in the project area, which may deter wildlife from the area. However, these impacts will be minimal and cease following construction.

No farming activities occur on the proposed project site. The nearest agricultural area is 1.3 miles to the north of the site. Livestock grazing occurs in the area surrounding the project area. The proposed action will have no impact on agricultural resources.

A Biological Evaluation report by JE Fuller (2023) identified special-status species and suitable habitat that potentially occur in the project area. Analysis of potential impacts of the Proposed Action on species retained for detailed analysis is provided in **Table 3**.

Table 3. Potential Impacts on TES Species (JE Fuller, 2023)

Species	Analysis of Effects	Findings
Golden Eagle	No raptor activity was observed at the time of the habitat evaluation survey. Rolling ridges, scattered cliffs and large rock outcrops occur along Chaco River approximately 0.70 mile to the west. Hogback Mountain, which is approximately 3.7 miles to the east, may provide suitable nesting or foraging habitat for the species. These features were scanned during the habitat evaluation survey for evidence of nesting raptors, but no whitewash or stick nests were observed. No suitable nesting or foraging habitat was identified within the project area due to the distance of the cliff habitats and lack of trees onsite. 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	Direct impacts to golden eagles 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

	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 occur within the vicinity of the tower site, and there could be very minor indirect short-term effects to prey availability during and after cell tower construction; however, prey abundance would likely return to current levels after construction. Given the abundance of relatively undisturbed habitat in the region surrounding the project area, it is unlikely that construction of the tower site would have an adverse effect on golden eagles or their suitable habitats. **No "take" as defined by the BGEPA would occur as a result of this project. Therefore, further consultation with USFWS is not necessary.**	likely to adversely affect species or its habitat.
Ferruginous hawk	No evidence of ferruginous hawks (stick nests or droppings) was detected during the habitat evaluation survey. Rolling ridges, scattered cliffs and large rock outcrops occur along Chaco River approximately 0.70 mile to the west. Hogback Mountain, which is approximately 3.7 miles to the east, may provide suitable nesting or foraging habitat for the species. These features were scanned during the habitat evaluation survey for evidence of nesting raptors. No suitable nesting or foraging habitat was identified within the project area due to the distance of the cliff habitats and lack of trees. The MBTA prohibits taking, killing, or possessing migratory birds. Direct impacts to ferruginous hawks are not anticipated. Potential prey items occur within the vicinity of the tower site, and there could be very minor, indirect, short-term effects to prey availability during and after cell tower construction; however, prey abundance would likely return to current levels after construction. Given the abundance of relatively undisturbed habitat in the region surrounding the project area, it is unlikely that construction of the tower site would have an adverse effect on ferruginous hawks or their suitable habitats. A pre-construction migratory bird nest search shall be conducted if vegetation is removed during breeding season to ensure that there will be no impacts to migratory birds. Additionally, construction activity shall avoid the breeding and chick rearing time of the year. **No taking, killing, or possessing of ferruginous hawks would occur as a result of this project. Therefore, further consultation with USFWS is not necessary.**	Direct impacts to ferruginous hawks are not anticipated. Very minor indirect impacts may occur temporarily. No violation of the MBTA would occur as a result of this project. The project is not likely to adversely affect species or its habitat
Burrowing owl	The MBTA prohibits taking, killing, or possessing migratory birds. Direct impacts to burrowing owls are not anticipated. The habitat evaluation survey identified no evidence of burrowing owls or potential burrowing owl burrows in the vicinity of any of the project area (whitewash, feathers, pellets, ornamentation, etc.). While dry, open grasslands and/or desert scrub are found onsite, no prairie dog colonies or requisite burrows were observed within the area surveyed, which included a 200-foot buffer. Additionally, given the abundance of more suitable habitat in the region surrounding the project area the proposed project is not anticipated to directly affect breeding burrowing owls. Very minor	Direct impacts to burrowing owls are not anticipated. Very minor indirect impacts may occur temporarily. No violation of

	indirect impacts may occur temporarily through decreased prey availability during construction. It is possible that individual burrowing owls could pass through the area surrounding the cell tower site while foraging or dispersing from more suitable habitat in the region; however, the construction of the tower is not likely to adversely impact the species because construction would be brief and prey populations would likely return to the area shortly after construction. A pre-construction migratory bird nest search shall be conducted if vegetation is removed during breeding season to ensure that there will be no impacts to migratory birds. **No taking, killing, or possessing of burrowing owls would occur as a result of this project. Therefore, further consultation with USFWS is not necessary.**	the MBTA would occur as a result of this project. The project is not likely to adversely affect species or its habitat
Mountain plover	The MBTA prohibits taking, killing, or possessing migratory birds. Direct impacts to mountain plovers are not anticipated. No mountain plovers were detected during the habitat evaluation survey. Given this species' preference for areas with short or sparse vegetation, or large bare areas that may be disturbed, potentially suitable habitat features were confirmed to exist onsite. Therefore, it is possible that mountain plovers could potentially utilize this project area for either nesting or foraging. However, due to the size and scope of the projects (50-foot by 50-foot cell tower pad) and the extensive availability of suitable habitat for the species throughout the Navajo Nation, the proposed action is not likely to adversely affect the species or its habitat. Very minor indirect impacts may occur temporarily through avoidance of the area during construction. A pre-construction migratory bird nest search shall be conducted if vegetation is removed during breeding season to ensure that there will be no impacts to migratory birds. **No taking, killing, or possessing of mountain plovers would occur as a result of this project. Therefore, further consultation with USFWS is not necessary.**	Direct impacts to mountain plovers are not anticipated. Very minor indirect impacts may occur temporarily. No violation of the MBTA would occur as a result of this project. The project is not likely to adversely affect species or its habitat
Black footed ferret	No black-footed ferrets, burrows, or sign were observed during the habitat evaluation survey; however, this species is nearly impossible to detect in daylight hours due to their secretive nocturnal/crepuscular habits. Black-footed ferrets are listed as potentially occurring in the vicinity of the Moncisco Mesa site (NNDFW 2023). JE Fuller's Senior Biologist observed kangaroo rat burrows on-site (see *Appendix A*), but no prairie dogs were observed. It is highly unlikely that the black-footed ferret (a Navajo Nation extirpated species) would use any of the cell tower sites without the presence of a nearby prairie dog colony. Therefore, the project would have no effect on this species or its habitat.	**No effect to the species or its habitat**
Aztec Gilia	This species is listed as potentially occurring in the vicinity of the Moncisco Mesa site which is located in the Nacimiento Formation (NNDFW 2023). Potentially suitable habitat was observed to the north of the Moncisco Mesa site where the mesa falls away into the valley below, however, the crest of the mesa where the tower would be constructed is above the known elevational range of the species and does not offer ideal habitat. No individual plants of this species were observed during the habitat evaluation survey, which was conducted on March 31, 2023 (at the beginning of the recommended survey period of April through	**No effect to the species or its habitat**

	June; Roth 2001a) when growing plants could be observed. Because no plants of this species were observed at the site or within 200 feet of the proposed tower location, no impacts to this species are anticipated.	
San Juan milkweed	This species is listed as occurring within 20 kilometers of the project area by SEINet (2023). It should be noted that the project area represents the Great Basin Desert Scrub biotic community (not pinyon-juniper woodlands and Great Basin grassland communities where the species is commonly found), which is defined by relatively low species diversity and is often occupied by only a few shrub species. No milkweeds or suitable habitat were observed during the habitat evaluation survey conducted on June 22, 2023 (at the end of the survey period of April through June; Roth 2001d) when growing and potentially flowering plants could be observed. While potentially suitable habitat for this species could be impacted, no milkweed plants were observed at the site or within 200 feet of the proposed tower location; therefore, no impacts to this species are anticipated.	**No effect to the species or its habitat**
Brack's Hardwall Cactus	This exceedingly small species of cactus is found in sparse shadscale, desert scrub or grassland, and scattered juniper communities in San Juan County, New Mexico south of the San Juan River. It typically grows on sandy clay hills, mesas and washes, desert grasslands, and shrub-dominated flats within the Nacimiento Formation at approximately 5,000 to 6,000 ft amsl (Roth 2001). This species is listed as potentially occurring in the vicinity of the Moncisco Mesa site (NNDFW 2023). Potentially suitable habitat was observed to the northeast of the Moncisco Mesa site where the mesa falls away into the valley below; however, the habitat on top of the mesa where the tower is proposed is well above the known elevational range of the species and does not offer ideal habitat. No individual plants of this species were observed during the habitat evaluation survey which was conducted on March 31, 2023 (at the beginning of the survey period; Roth 2001) when growing plants could be observed. Because no plants of this species were observed at the site or within 200 feet of the proposed tower location, no impacts to this species are anticipated	**No effect to the species or its habitat**
Monarch butterfly	There were no monarchs or nectar producing milkweed species observed within or near the project site during the habitat evaluation survey. The species' host plants in the Asclepias genus were not observed during the habitat evaluation survey. However, six species in the Asclepias genus have been documented within 20 kilometers of the project area (SEINet 2023). Several types of flowers/forbs were observed at the project site; but should a monarch prefer feed from any of these species, the vast quantities or similar habitat in the vicinity of the project area would offer extensive feeding opportunities. Therefore, given the lack of milkweed species in the project area and the vast quantity of project-similar habitat in the nearby vicinity, the proposed action would have no effect on the species or its habitat.	**No effect to the species or its habitat**

The BE documents special-status species with suitable habitat within or near the proposed telecommunication tower. With implementation of the mitigation/conservation measures described above, adverse effects to these Navajo Nation special-status species and migratory birds 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 of the cell towers, NNDFW would be notified, and care and management of that species would commence as recommended by NNDFW. N**NDFW concurred with this finding and issued a Biological Resources Compliance Form (BRCF)** with the Ferruginous hawk and golden eagle listed as potentially impacted species on August 29, 2023. **The BRCF granted conditional approval with the mitigation measures and conditions of compliance as stated below**. See **Appendix D** for the full BRCF.

Under the No-Action Alternative, there would be no change and therefore no impact on biological resources.

4.4.1 Mitigation Measures and BMPs

Avoidance/Mitigation measures are as follows:

1. The NNHP recommends that the project sponsor implement BMPs for erosion control and invasive weed prevention and mitigation. NNHP also recommends that temporary disturbance areas shall be reseeded with a native species mix that matches the species in surrounding non-disturbed areas.
2. The NNHP strongly recommends the project sponsor shall implement BMPs for invasive weed prevention and mitigation across all areas where ground disturbance or vegetation removal occurs.

Conditions of Compliance are as follows:

1. The NNHP recommends the project sponsor shall avoid vegetation clearing during breeding season or conduct a pre-construction nest search 10 days prior to vegetation removal activities.
2. NNHP recommends the project sponsor shall avoid the migratory bird breeding season (March 1 – August 31, or any year). A pre-construction survey should be performed if work occurs during this time period to determine if active nests are within the limits of vegetation removal associated with the project.
3. Ferruginous hawk time of year restrictions:
    a. All construction activity shall avoid the breeding and chick rearing time of the year (March 1 – July 31, of any year)

Survey protocols and habitat descriptions for the species listed above can be found in the species accounts available on NNHP's website at https://www.nndfw.org/nnhp/sp_account.htm. Surveys must be conducted during the appropriate time of year (for plants, during the fruiting/flowering season) by an experienced biologist who is permitted by the Navajo Nation. See here for a list of permitted consultants (https://www.nndfw.org/bi_consult_list2022.pdf). Survey reports need to be sent to NNHP prior to construction activities taking place. The survey contractor shall consult with the NNHP botanist and zoologist for positive identification and development of mitigation strategies if NESL plants and or wildlife species are found during surveys.

4.5 Cultural Resources

A determination of "no historic properties affected" is recommended for the proposed undertaking. It was recommended that the client be allowed to proceed with construction as planned. In the event that buried cultural resources are encountered during construction, construction activities should stop and the NNHHPD be contacted immediately at (928) 871-7198. The NNHHPD concurred with this finding and issued a Cultural Resources Compliance Form (CRCF) on January 18, 2023. See **Appendix E** for the CRCF.

4.6 Socioeconomic

Under the Proposed Action, socioeconomic impacts of increased communication and connectivity from additional broadband connection would be beneficial and long-term.

Under the No-Action Alternative, there would be no effect to the surrounding natural resources, however, there would be continued impacts to residents and nearby travelers of limited access to the internet. This impact is moderate and long-term.

No environmental justice issues were identified.

4.7 Resource Use Patterns

There will be no impact on recreation, hunting, fishing, and gathering, timber harvesting, or land use plans under the Proposed Action or the No-Action Alternative due to the lack of these resources in the immediate vicinity of the project area.

4.8 Other Values

There will be no impact on wilderness areas, Indian Trust assets, or hazardous waste under the Proposed Action or No-Action Alternative. Impacts on noise and light, visual setting, and public health and safety are described below.

4.8.1 Noise and Light

During construction, there will be an increased level of noise associated with heavy machinery use. This impact will be short-term and minor and cease following construction.

Under the No-Action Alternative, there will be no change and therefore no impact on the noise and light conditions of the area.

4.8.2 Visual Setting

Under the Proposed Action, the 180-foot tower will be seen in the surrounding areas of Huerfano and nearby roads. Current visual aspects of the project area include evidence of grazing, agricultural plots, paved and unpaved roads, and three existing towers in the immediate vicinity. There will be a minor, long-term impact on the visual setting.

Under the No-Action Alternative, there will be no change and therefore no impact on the visual setting.

4.8.3 Public Health and Safety

Under the Proposed Action, telecommunication services will be improved, which will improve response times by police, fire, and emergency medical services. This impact will be long-term and beneficial.

Under the No-Action Alternative, the area would continue to have slower communications to and from health and public safety entities.

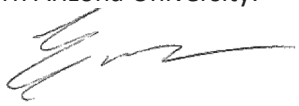
4.9 Cumulative Impacts

The CEQ regulations (40 CFR 1500-1508) implementing the procedural provisions of NEPA, as amended (42 USC 4321) defines cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (40 CFR 1508.7).”

Impacts associated with construction of the Proposed Action are limited, short-term, and minor. due to the lack of overlap with similarly impactful projects in time or location, there are no cumulative impacts predicted. The long-term impacts associated with the Proposed Action are also limited and minor; the tower will be built in an area near existing structures, roads, and infrastructure and will not cause a major change in viewshed. In conjunction with other projects increasing broadband connection throughout the Navajo Nation, cumulative benefits of improved connection will benefit a variety of services for amenities like distance learning, telehealth, telework, e-commerce, public safety, and emergency response. Impacts of similar projects will be evaluated in individual EAs or Categorical Exclusions for the projects.

5.0 Document Preparers' Qualifications and Signature

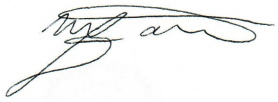
This document has been prepared by Eunice L. Tso, NEPA Specialist, ETD, Inc, and Madelyn Norstrem, Environmental Scientist, ETD, Inc. Madelyn Norstrem holds a B.S. Degree in Environmental Science, with an Emphasis on Resource Management. Ms. Tso has over 25 years of experience in environmental regulatory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



10/5/23

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

Date



10/05/2023

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Appendix A NNDFW NESL List DR #23etd101

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NNHP
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23etd101

23-March-2023

Madelyn Norstrem
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SUBJECT: Proposed Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers

Madelyn Norstrem,

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 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

AQCH = Aquila chrysaetos / Golden Eagle NESL G3
ASSA = Asclepias sanjuanensis / San Juan Milkweed NESL G4
BURE = Buteo regalis / Ferruginous Hawk NESL G3
URAR = Ursus arctos / Grizzly or Brown Bear NESL G1

All or parts of this project currently are within Ferruginous Hawk Guidline Areas; consult with NNDFW zoologist or EA reviewer for more information and recommendations.

2. Potential Species

Species

ALFO = Aliciella formosa / Aztec Gilia NESL G3
ALGO = Allium gooddingii / Gooding's Onion NESL G3
ANVA = Anticlea vaginatus / Alcove Death Camas NESL G3
AQCH = Aquila chrysaetos / Golden Eagle NESL G3
ASSA = Asclepias sanjuanensis / San Juan Milkweed NESL G4
ATCU = Athene cunicularia / Burrowing Owl NESL G4
BURE = Buteo regalis / Ferruginous Hawk NESL G3
CASP = Carex specuicola / Navajo Sedge NESL G3 FT
CHMO = Charadrius montanus / Mountain Plover NESL G4
CIME = Cinclus mexicanus / American Dipper NESL G3
CIRY = Cirsium rydbergii / Rydberg's Thistle NESL G4
CYUT = Cystopteris utahensis / Utah Bladder-fern NESL G4
DISP = Dipodomys spectabilis / Banner-tailed Kangaroo Rat NESL G4
EMTREX = Empidonax traillii extimus / Southwestern Willow Flycatcher NESL G2 FE
ERSI = Erigeron sivinskii / Sivinski's Fleabane NESL G4
LIPI = Lithobates pipiens / Northern Leopard Frog NESL G2
MUNI = Mustela nigripes / Black-footed Ferret NESL G1 FE
PHNA = Physaria navajoensis / Navajo Bladderpod NESL G3
PLZO = Platanthera zothecina / Alcove Bog-orchid NESL G3
SCCLBR = Sclerocactus cloveriae ssp. brackii / Brack Hardwall Cactus NESL G3
VUMA = Vulpes macrotis / Kit Fox NESL G4

23etd101

3. Quadrangles (7.5 Minute)

Quadrangles
Many Farms SW (36109-C6) / AZ
Moncisco Wash (36108-D2) / NM
Red Cornfield Mesa (36109-C3) / AZ

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

SITE	EO1MI	EO3MI	QUAD	MSO	POTS	RCP
Moncisco Mesa Site	BURE	ASSA, BURE	Moncisco Wash (36108-D2) / NM	None	ALFO, AQCH, ASSA, ATCU, BURE, CHMO, EMTREX, MUNI, SCCLBR	Area 3
Proposed New Many Farms Site	None	AQCH	Many Farms SW (36109-C6) / AZ	None	ANVA, AQCH, ATCU, BURE, CASP, CHMO, CIRY, DISP, PLZO, VUMA	Area 3
Proposed New Ram Pasture Site	None	URAR	Red Cornfield Mesa (36109-C3) / AZ	None	ALGO, ANVA, AQCH, CASP, CHMO, CIME, CIRY, CYUT, EMTREX, ERSI, LIPI, PHNA, PLZO	Area 3

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.

Page 3 of 7

23etd101

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.

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.

23etd101

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 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.

23etd101

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), Peritylе 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)

6. Personnel Contacts

Wildlife Manager
Leanna Begay
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lbegay@nndfw.org

Zoologist
Brent Powers
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Botanist
Nora Ventrella
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Biological Reviewer
Vacant
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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

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

IPaC resource list

Many Farms West Site

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

9828 North 31st Ave

#c3
Phoenix, AZ 85051-2517

Endangered species

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

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

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

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

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

Listed 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.

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:

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
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

Reptiles

NAME	STATUS
Northern Mexican Gartersnake Thamnophis eques megalops Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7655	Threatened

Fishes

NAME	STATUS
Razorback Sucker Xyrauchen texanus Wherever found This species only needs to be considered if the following condition applies: • Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. Effects of water depletions must be considered even outside of occupied range. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/530	Endangered

Insects

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

Flowering Plants

NAME	STATUS
Navajo Sedge Carex specuicola Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8579	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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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-incidental-take-

migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

There are no migratory birds of conservation concern expected to occur at this location.

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

This location did not intersect any wetlands mapped by NWI.

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 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.

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Appendix C NEPAssist Report

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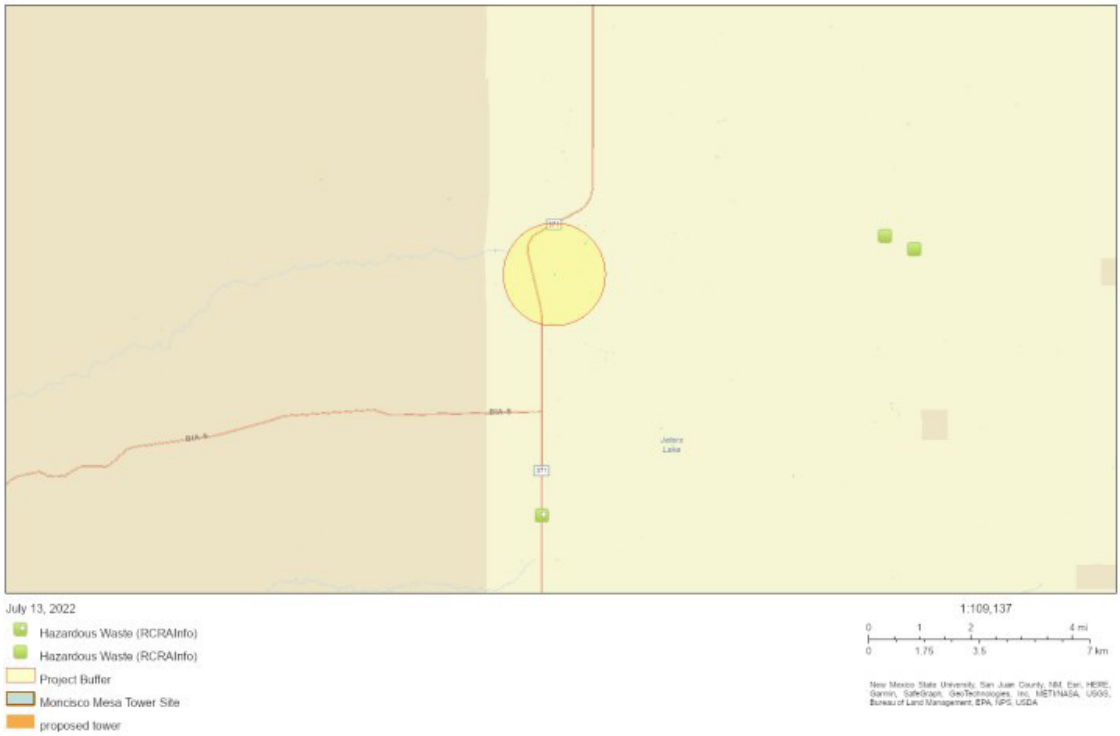
NEPAssist Report

Moncisco Mesa Tower Site



Input Coordinates: 36.476105,-108.247423,36.476278,-108.247315,36.476148,-108.247261,36.476105,-108.247423	
Project Area	0.00 sq mi
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	no
Within 1 mile of an impaired waterbody?	no
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	no
Within 1 mile of a Superfund site?	no
Within 1 mile of a Toxic Release Inventory (TRI) site?	no
Within 1 mile of a water discharger (NPDES)?	no
Within 1 mile of a hazardous waste (RCRA) facility?	no

Within 1 mile of an air emission facility?	no
Within 1 mile of a school?	no
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	no
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	no
Within 1 mile of a Toxic Substances Control Act (TSCA) site?	no
Within 1 mile of a Land Cession Boundary?	yes
Within 1 mile of a tribal area (lower 48 states)?	yes
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	no

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Appendix D Biological Resources Compliance Form

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NNDFW Review No. 23etd101

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.: Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers

DESCRIPTION: Three 180 ft Self-Supporting Lattice Telecommunications Towers on 50 ft x 50 ft lease areas.

LOCATION:
1. Moncisco Mesa/ NMSJ02333A - Huerfano Chapter - 36° 28'34.30" N, 108°14'50.53" W
2. Many Farms West – Many farms Chapter - 36 20' 47.85" N, 109 41' 48.39" W
3. Ram Pasture Tsaile Chapter - 36 16' 59.40" N, 109 20' 6.87" W

REPRESENTATIVE: Madelyn Norstrem - Environmental Scientist, ETD, Inc.

ACTION AGENCY: CellularOne

B.R. REPORT TITLE/ DATE/PREPARER: Request for Biological Review & Compliance/ 26 APR 2023/ETD, Inc.

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3, Low Wildlife Sensitivity for all 3 sites

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED:
Ferruginous Hawk (*Buteo regalis*) NESL G3
Golden Eagle (*Aquila chrysaetos*) NESL G3

FEDERALLY-LISTED SPECIES POTENTIALLY IMPACTED: NA
OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES:

For all site locations:
1. NNHP recommends that the project sponsor shall implement Best Management Practices for erosion control and invasive weed prevention and mitigation. NNHP also recommends that temporary disturbances areas shall be reseeded with a native species mix that matches the species in surrounding non-disturbed areas.

Page 1 of 3

NNDFW –B.R.C.F.: FORM REVISED 04 MAR 2022

2. NNHP strongly recommends the project sponsor shall implement Best Management Practices (BMPs) for invasive weed prevention and mitigation across all areas where ground disturbance or vegetation removal occurs.

CONDITIONS OF COMPLIANCE*:

For all site locations:

1. NNHP recommends the project sponsor shall avoid vegetation clearing during breeding season or conduct pre-construction nest search 10 - days prior to vegetation removal activities.
2. NNHP recommends the project sponsor shall avoid the migratory bird breeding season (March 1 - August 31, of any year). A pre-construction survey should be performed if work occurs during this time period to determine if active nests are within the limits of vegetation removal associated with the project.

Moncisco Mesa Site –

Ferruginous hawk (*Buteo regalis*) Time of Year Restriction

a). All construction activity shall avoid the breeding and chick rearing time of the year March 1 - July 31, of any year.

FORM PREPARED BY / DATE: T. Kim Yazzie/11 JUL 2023; Revised, L. Begay/25 AUG 2023

COPIES TO: (add categories as necessary)

☐ _____ ☐ _____

2 NTC § 164 Recommendation:

☐ **Approval:**

☒ **Conditional Approval (with memo):**

DR# 23etd101 - Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers

☐ **Pending (with memo):**

☐ **Disapproval (with memo):**

☐ **Categorical Exclusion (with request letter):**

☐ **None (with memo):**

Gloria M. Tom, Director
Fish & Wildlife

Navajo Nation Department of

Signature: /Gloria M. Tom/ 8/29/23 Date

*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 NNDFW –B.R.C.F.: FORM REVISED 04 MAR 2022 Date

NNDFW –B.R.C.F.: FORM REVISED 04 MAR 2022

ETD INC

SERVING INDIAN COUNTRY SINCE 1995 WWW.ETD-INC.COM

ENVIRONMENTAL COMPLIANCE | PROJECT MANAGEMENT | COMMUNITY RELATIONS

March 20, 2023

Navajo Nation Department of Fish and Wildlife
Navajo Natural Heritage Program
P.O. Box 1480
Window Rock, Arizona 86515
ATTN: Dexter Prall

RE: Data Request for Proposed Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers

Dear Mr. Prall:

ETD is hereby, requesting data on the concurrence of species concern for this project. The proposed action is to construct 3 180-foot self-supporting lattice telecommunication towers on 50 x 50-foot lease areas. Maps and Google Earth kmz files showing the project sites are attached and below you will find project location information.

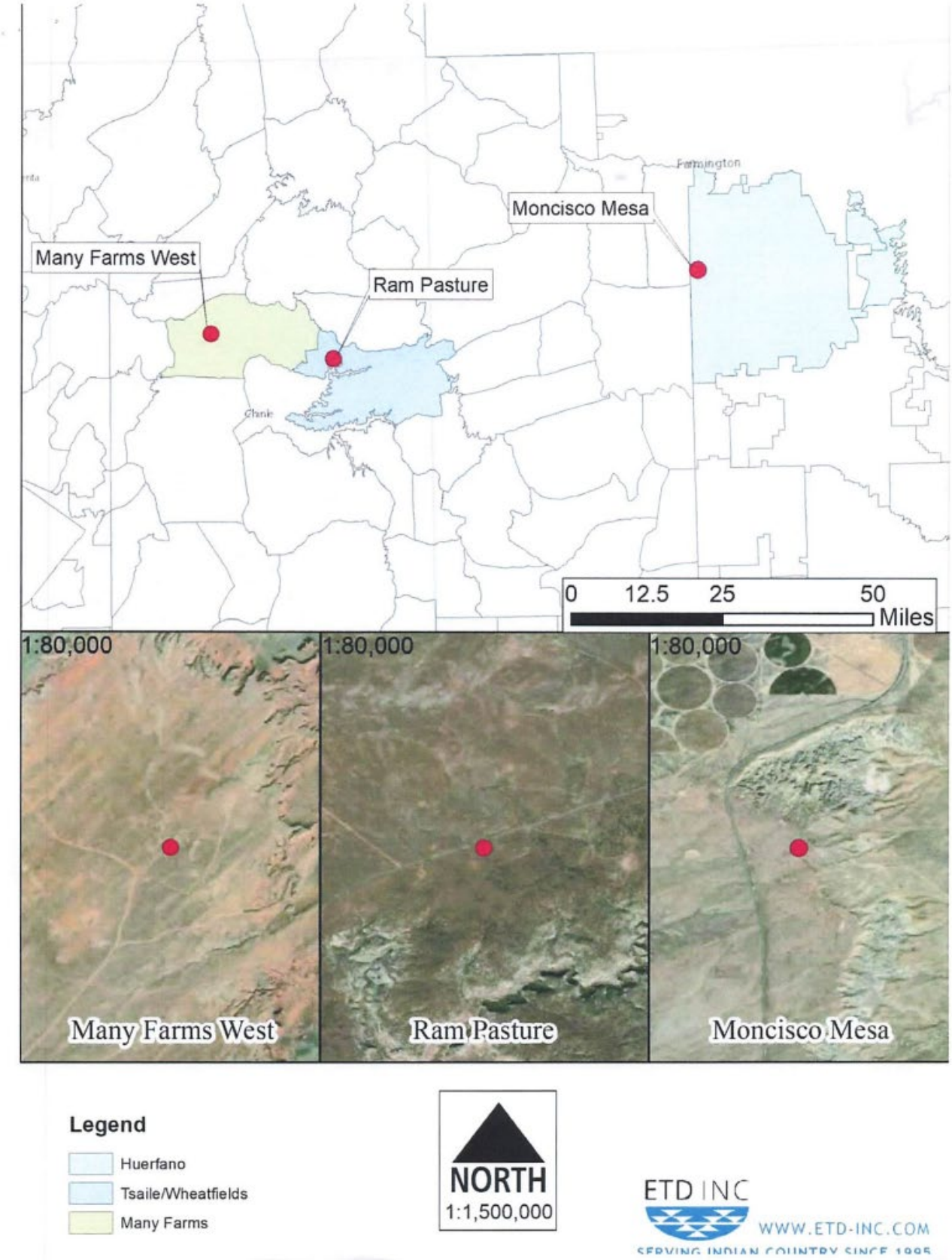
Name/Number	Chapter	Tower Center Lat/Long	Legal Location (G&SRPM)	USGS 7.5' Quadrangle
Moncisco Mesa / NMSJ02333A	Huerfano	36° 28'34.30" N 108°14'50.53" W	Section 20, T.26N, R.13W	Moncisco Wash, NM (1966)
Many Farms West	Many Farms	36 20' 47.85" N 109 41' 48.39" W	Section 18, T.34N, R.25E	Many Farms SW, AZ (1968)
Ram Pasture / AZAP0386A	Tsaile/ Wheatfileds	36 16' 59.40" N 109 20' 6.87" W	Section 9, T.33N, R.28E	Sonsala Butte 2SE, AZ (1955)
**Datum is NAD83 Zone 12 N*				

Should you have any questions, please contact me at (928) 266-0044 or email me at eunicet@etd-inc.com. Thank you.

Sincerely,

Eunice Tso, Project Manager
ETD, Inc.

2501 N. 4th Street, Suite 24; Flagstaff, Arizona 86004 (928) 266-0044


Farmington
Moncisco Mesa
Many Farms West
Ram Pasture
Chinle
0 12.5 25 50
Miles
1:80,000
Many Farms West
1:80,000
Ram Pasture
1:80,000
Moncisco Mesa
Legend
Huerfano
Tsaile/Wheatfields
Many Farms
NORTH
1:1,500,000
ETD INC
WWW.ETD-INC.COM
SERVING INDIAN COUNTRY SINCE 1995

DR. BUU NYGREN *PRESIDENT*
RICHELLE MONTOYA *VICE PRESIDENT*
The Navajo Nation | Yideeskąądi Nitsáhákees

7/11/2023

DR# 23etd101

Madelyn Norstrem, Environmental Scientist
ETD, Inc
928.266.0044
madelyn@etd-inc.com
2501 N. 4th St., Suite 24
Flagstaff, AZ 86004

Dear Madelyn,
The Navajo Nation Department of Fish and Wildlife (NNDFW) and the Navajo Natural Heritage Program (NNHP) have reviewed a BE & BRCF request form for Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers project. The purpose of this letter is to inform you that the Navajo Nation is granting the proposed project ***Conditional Approval***.

Based on the information provided and information in the NNHP database and has determined that additional protective measures are required in order to protect NESL species before, during and after construction activities commence.

The **Conditional Approval conditions** are as follows for the Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers

For all site locations:

1. NNHP recommends the project sponsor shall avoid vegetation clearing during breeding season or conduct pre-construction nest search 10 - days prior to vegetation removal activities.
2. NNHP recommends the project sponsor shall avoid the migratory bird breeding season (March 1 - August 31, of any year). A pre-construction survey should be performed if work occurs during this time period to determine if active nests are within the limits of vegetation removal associated with the project.

Moncisco Mesa Site –

Ferruginous hawk (*Buteo regalis*) Time of Year Restriction
a). All construction activity shall avoid the breeding and chick rearing time of the year March 1 - July 31, of any year.

Recommended Avoidance and Minimization of Conditional Approvals for the

Navajo Nation Department of Fish &Wildlife/ Navajo Natural Heritage Program
POST OFFICE BOX 1480 – WINDOW ROCK, AZ 86515 – PHONE: (928) 871-6450/7859
– FAX: (928) 871-7069

Moncisco Mesa, Many Farms West, and Ram Pasture 180 ft Self-Supporting Lattice Telecommunications Towers project:

For all site locations:

1. NNHP recommends that the project sponsor shall implement Best Management Practices for erosion control and invasive weed prevention and mitigation. N NHP also recommends that temporary disturbances areas shall be reseeded with a native species mix that matches the species in surrounding non-disturbed areas.
2. NNHP strongly recommends the project sponsor shall implement Best Management Practices (BMPs) for invasive weed prevention and mitigation across all areas where ground disturbance or vegetation removal occurs.

Survey protocols and habitat descriptions for the species listed above can be found in the species accounts available on NNHP's website at https://www.nndfw.org/nnhp/sp_account.htm.

Surveys must be conducted during the appropriate time of year (for plants, during the fruiting/flowering season) by an experienced biologist who is permitted by the Navajo Nation. See here for a list of permitted consultants (https://www.nndfw.org/bi_consult_list_2022.pdf). Unless otherwise indicated, plant surveys shall include a buffer of 200 ft. from all temporary and permanent ground-disturbing activities; including temporary equipment staging areas.

Survey reports need to be sent to NNHP prior to construction activities taking place. The survey contractor shall consult with the NNHP botanist and zoologist for positive identification and development of mitigation strategies if NESL plants and or wildlife species are found during surveys.

Please contact me via email at lbegay@nndfw.org with any questions that you have concerning the review of this project.

Leanna Begay, Wildlife Manager
Navajo Natural Heritage Program
Department of Fish &Wildlife

CONCURRENCE

Gloria Tom, Director
Department of Fish &Wildlife

7/20/23
Date

xc: CONS-100-19
BIA

Navajo Nation Department of Fish &Wildlife/ Navajo Natural Heritage Program
POST OFFICE BOX 1480 – WINDOW ROCK, AZ 86515 – PHONE: (928) 871-6450/7859
– FAX: (928) 871-7069

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Appendix E Cultural Resources Compliance Form

"Appendix E Cultural Resources Compliance Form" was redacted, per Section 304 of the National Historic Preservation Act and 36 CFR § 800.11(c).