ENVIRONMENTAL ASSESSMENT

NAVAJO TRIBAL UTILITY AUTHORITY (NTUA) PROJECT ID 1- JEDEEZAH (LMS) NEW TOWER BUILD / MOBILITY AND FIXED WIRELESS BROADBAND

Located in Low Mountain - Navajo Nation Apache County, Arizona



October 17, 2023

Prepared for: U.S. Department of Commerce National Telecommunications & Information Administration 1401 Constitution Avenue NW, Washington, DC 20230

Prepared by:

Navajo Tribal Utility Authority POB 527 Fort Defiance, AZ 86504 928.729.5721



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1.0 Introduction

1.1 Executive Summary

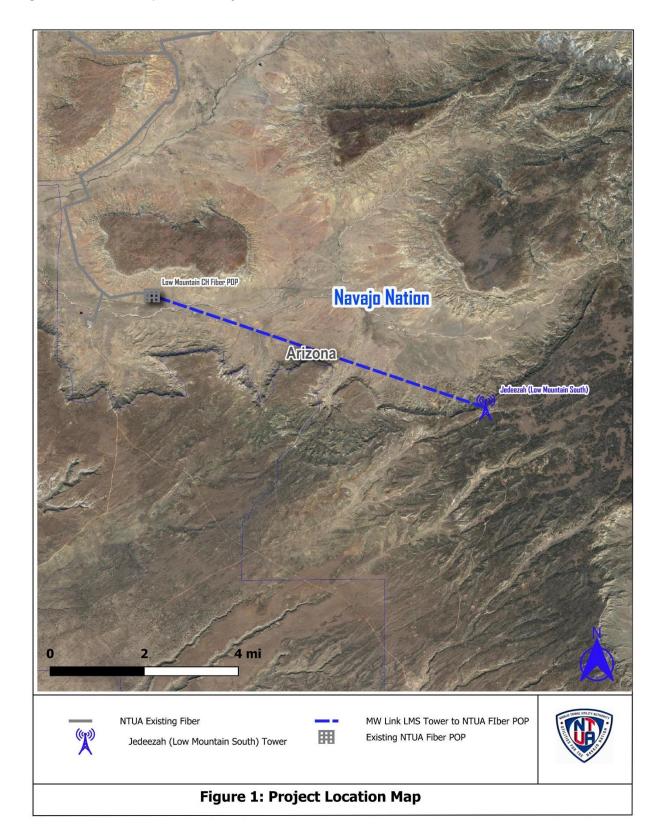
The Navajo Tribal Utility Authority (NTUA) received funding from the National Telecommunications Information Administration's Tribal Broadband Connectivity Program to expand broadband access to unserved/underserved areas of the Navajo Nation, Navajo County, Arizona. NTUA plans to implement the project through the construction of a new self-supported tower (SST) at 180 feet, establishing a power connection to the new facility, construction of an unpaved access road and installation of broadcast equipment. To ensure comprehensive coverage, the site will feature radio emitting devices such as radios, cables, and antennas, providing cellular-like services within the designated FCC-licensed frequency bands. The installation will expand internet to the rural community of Low Mountain and Jeddito, Navajo County, Arizona that currently have limited to no access.

By providing coverage to 637 Low Mountain and 346 Jeddito citizens in the community, its students, and businesses will receive internet access consistent with larger urban areas. The project will provide much-needed high-speed internet connectivity to public institutions and create opportunities for broadband connections to both businesses and households in this underserved region of the Navajo Nation, Navajo County, Arizona. High-speed internet connectivity is expected to facilitate rural economic development, job creation, education, and improve access to health care and emergency services.

See the project location map details in figure 1.



Figure 1: Location Map – USGS Project Site





The proposed broadband deployment is based on RF mapping to demonstrate gaps in coverage and/or dropped calls data to document the need for "capacity" sites. The intention of the proposed facility is to provide improved coverage and connectivity to an area for which RF mapping demonstrates very poor coverage. Two (2) alternatives were considered during the EA process:

- **Proposed Action Alternative:** Installation of a new self-supported tower (SST), overhead powerline extension, installation of broadcast equipment and upgrade of an unpaved access road; all within an established Right of Way easement.
- **No Action Alternative:** No broadband installation; coverage in Low Mountain & Jeddito, Navajo County, Arizona would remain unserved/underserved.

While two (2) alternatives were considered, the Proposed Action Alternative was selected for the comprehensive analysis and final design over other potentially identified sites because it would have fewer infrastructure constraints, less potential environmental impact, lower cost, and fulfill the requirements of the grant. The Proposed Action Alternative consists of installing a new self-supported tower (SST) at 180 feet, extending a power connection from an existing NTUA powerline to the new facility, installing broadcast equipment and upgrading an existing unpaved access road. Construction of the proposed project will be within an established Rights of Way.

Because the proposed project utilizes federal funds, NTIA must fulfill obligations under the National Environmental Policy Act (NEPA) and other applicable local, state, and federal regulations. In compliance with these regulations, the following environmental assessment (EA) has been prepared. The implementation of NEPA requires a systematic, interdisciplinary approach to project planning and implementation, and emphasizes that the environmental impacts of federally funded projects be given serious consideration in the decision-making process. The EA evaluates the potential social, economic, and environmental effects from the proposed project, and was prepared with input from stakeholder agencies. The EA addresses the following:

- Noise
- Air Quality
- Geology and Soils
- Water Resources
- Biological Resources
- Historic and Cultural Resources
- Aesthetic and Visual Resources
- Infrastructure
- Socioeconomic Resources
- Human Health and Safety

The results of the EA indicate that, with appropriate mitigation and conservation measures, the Proposed Action Alternative would not result in any significant adverse effects to the natural, cultural, or human environment. The findings of the EA are summarized in the table below:



Resource Area	Proposed Action Alternative	No Action Alternative
Noise	Short term impacts during construction would be temporary and minor. Mitigation methods include limiting the hours of construction to occur only during normal business hours during the week (8am to 6pm). No Significant Impacts.	No Impacts.
Air Quality	Short impacts during construction would be temporary and minor, including fugitive dust emissions from vehicular movement and facility construction. Dust suppression techniques via water trucks or other methods will reduce fugitive dust emissions during construction. No Significant Impacts.	No Impacts.
Geology & Soils	Minimal impact to soils during the installation of power poles and aerial electrical lines to the tower site. The tower installation is confined to a 125 ft. x 125 ft. area. Dust suppression techniques via water trucks or other methods will reduce fugitive dust emissions during construction. No Significant Impacts.	No Impacts.

Table 1: Effect Comparison of Alternatives



Water Resources	Significant impacts to water resources are not anticipated currently as no natural channels occur with or near this area. There are no jurisdictional channels that would require Section 404 permitting with the Army Corps of Engineers. As no Section 404 permit is necessary, a Section 401 Certification will not be required. No Significant Impacts.	No Impacts.
Biological Resources	The avoidance of disturbance to sensitive terrestrial habitats by routing powerlines and installing 180 ft. tower in Rights of Way corridors will result in no significant impact to these resources. The effort to adhere to all mitigation regulations regarding biological resources in the area to protected and avoided during project implementation. No Significant Impacts.	No Impacts.
Historic & Cultural Resources	While historic and cultural resources are known to exist in the project area, installation methods will not result in any significant impacts to these resources. The Navajo Nation, a Federally recognized tribe, has been contacted regarding the project and did not identify any adverse impact or concerns. NTUA will halt construction activities and contact the Navajo Nation Heritage & Historic Preservation Department if archeological materials or human remains are discovered. No Adverse Effects.	No Impacts.
Aesthetic & Visual Resources	While construction impacts will be temporary and minor, no changes will occur to the landscape that would result in any adverse impacts to the visual landscape and aesthetic quality of the region. No Significant Impacts.	No Impacts.



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Land Use	While construction impacts will be temporary and minor, the project will not result in any long-term impacts or changes to the current land use of the area. No Significant Impacts.	No Impacts.
Infrastructure	The project involves a powerline extension from an existing overhead line, installing a 180 ft. tower, installing broadcast equipment and upgrading an existing unpaved road all of which is within a Right-of-Way corridor. The project will provide a beneficial enhancement to the infrastructure of Navajo County by providing valuable broadband coverage and services. No Significant Impacts.	No Impacts.
Plan Socioeconomic Resources	Beneficial impacts to socioeconomics will result in the form of better communication capabilities, increased educational opportunities, economic development potential, higher security, and improved access to health care.	Environmental Justice (EJ) communities, Low Mountain and Jeddito, in rural Navajo County would continue to lack access to broadband infrastructure. Significant Impacts.
Human Health & Safety	The project is in a rural location and is not anticipated to pose any environmental concerns. NTUA will operate under the provisions of a Construction Safety Plan to ensure worker protection from any potentially contaminated media generated during construction. NTUA is the primary utility company that operates and maintains electrical, water/wastewater, and internet connectivity in the area and will identify buried utilities in the ROW prior to subsurface construction. NTUA employs qualified workers that have experience and are trained to operate heavy equipment and machinery. No Significant Impacts.	No Impacts.

1.2 Purpose and Need

The purpose of the project is to deploy broadband to unserved/underserved rural populations of Navajo County on the Navajo Nation. This action is needed due to insufficient access to broadband. The Infrastructure Investment and Jobs Act was signed in law on November 15, 2021, with an investment of \$65



billion to help close the digital divide and ensure that all Americans have access to reliable, high speed, and affordable broadband. This action will support the National Telecommunications and Information Administration's (NTIA) overall objective of deploying a nationwide broadband network, to lay critical groundwork for widespread access and affordability of broadband, creating new jobs and economic opportunities, providing increased access to healthcare services, enriching educational experiences of students, and improving overall quality of life for citizens of Low Mountain and Jeddito communities. The Navajo Nation's goals on broadband connectivity:

- To enable rural Navajo communities and regions to develop, attract, retain, and expand job-creating businesses and institutions. To improve the productivity and profitability of large, small, and home-based businesses, allowing them to compete in local, national, and global markets.
- To enhance government agencies' quality services, promote lower costs, and increase transparency by improving internal operations for residents' online interaction.
- To enhance educational experiences for students and educators allowing access to resources, such as text-based materials, photos, videos, music, animations, interactive lessons, and oral history collections. In addition, distance learning opportunities will be provided that allow for learning at any time from any location such as libraries, school, and home. Opportunities for residents to take career and skill development classes from community centers, colleges, and technical schools contribute to greater economic growth, entrepreneurship, and job creation.
- To allow remote access for patients to receive clinical services, which will significantly improve health services delivery, and cost-effective access to quality healthcare. It will allow healthcare providers and physicians to monitor their patients through innovative home health devices, avoiding long distance travel and giving patients real-time feedback.
- To enhance the interoperability of local, county, state and federal police, fire, health, and other governmental agencies that protect the public in day-to-day and crisis situations. This project will enhance rapid disaster response systems, effective early warning and public alert systems, disaster preparation programs, remote security monitoring, redundant, and backup systems for public safety communications networks.
- To allow employees the opportunity to telework from remote locations without having to commute long distances to offices or base locations. The working population live in the rural areas with unpaved roads and are miles from the nearest work locations. The wear and tear on vehicles associated with long distance travel on unpaved roads is a financial burden, and time consuming.
- Addressing the needs of people with disabilities is very important. Utilizing various broadband based applications and technologies, the deaf or hearing-impaired members of the community can use webcams to communicate using sign language. Those who are blind or visually impaired can use screen reader programs that audibly describe website materials to users. Software programs that interpret screen content in Braille are also available. Broadband allows use of video relay services to communicate more readily with voice telephone users.

The proposed project will enable a variety of vital broadband services currently lacking in the area and access at community anchor institutions. This includes mobile and fixed wireless access at the Jedeezah Elementary School and the Low Mountain & Jeddito Chapter Houses. Aside from educational support, the



project will extend 911, telehealth services, as well as other vital 4G mobile services. The Low Mountain and Jeddito Communities in Navajo County, Arizona have been identified as having a deficiency of broadband coverage. This project will expand access to internet coverage in Navajo County that lacks access. By providing coverage to the Low Mountain and Jeddito communities, businesses, citizens, and students will have access to consistent high speed internet equivalent to urban areas in the State of Arizona and nationally. In addition, the project will provide much-needed high-speed internet connectivity to public institutions and create opportunities for broadband connectivity to both businesses and households in this unserved/underserved region on the Navajo Nation. Providing high speed internet access, the project is expected to facilitate rural economic development, job creation, education, and improve access to health care and emergency services.

2.0 Description of Proposed Action and Alternatives

Included in this Chapter is a description of the Proposed Action and project alternatives as well as the justification for the alternatives selected for further study.

2.1 Introduction

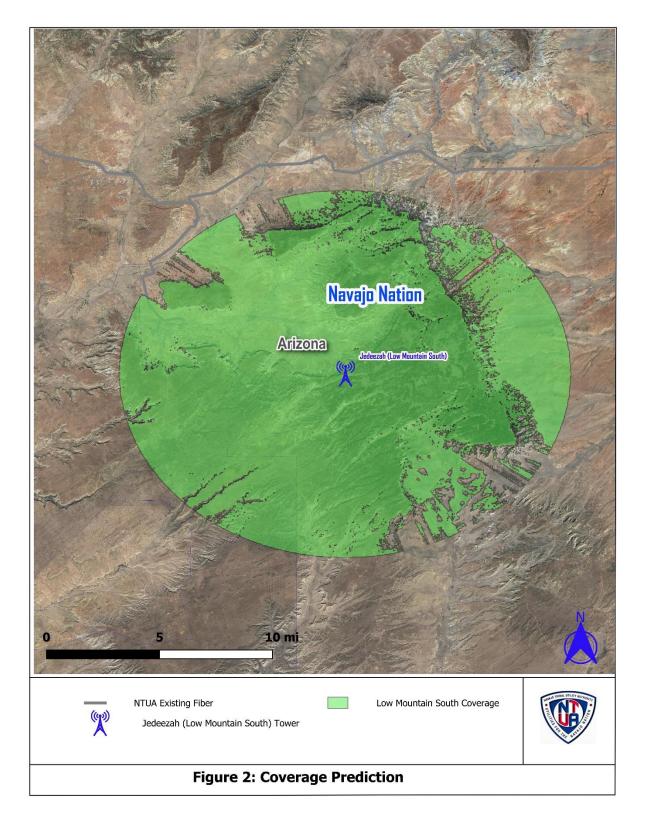
The Navajo Tribal Utility Authority (NTUA) in coordination with the National Telecommunications Information Administration's Tribal Broadband Connectivity Program intends to expand broadband access to unserved/underserved areas of the Navajo Nation, Navajo County, Arizona. NTUA plans to perform the work through the construction of a new self-supported tower (SST) at 180 feet, extending a power connection to the new facility, building an unpaved access road and installing broadcast equipment. To ensure comprehensive coverage, the site will feature radio emitting devices such as radios, cables, and antennas, providing cellular-like services with designated FCC-licensed frequency bands. The installation will expand internet to the rural communities of Low Mountain and Jeddito, Navajo County, Arizona that currently have limited to no access.

Providing broadband coverage to 637 Low Mountain and 346 Jeddito citizens in the community, its students, and businesses will receive internet access consistent with larger urban areas. The project will provide much-needed high-speed internet connectivity to public institutions and create opportunities for broadband connections to both businesses and households in this underserved region of the Navajo Nation, Navajo County, Arizona. High-speed internet connectivity is expected to facilitate rural economic development, job creation, education, and improve access to health care and emergency services.

The proposed broadband deployment is based on RF mapping. Historically, the FCC utilized RF mapping to demonstrate gaps in coverage and/or dropped calls data to document the need for "capacity" sites. The intention of the proposed facility is to provide improved coverage and connectivity to an area for which RF mapping demonstrates very poor coverage.



Figure 2: Coverage Prediction





2.2 Proposed Action

The project site is located in rural Northeastern Arizona within Navajo County on the Navajo Nation; approximately 80 miles from Holbrook AZ, 98 miles from the Capital of the Navajo Nation government in Window Rock, AZ, and 135 miles from Flagstaff Arizona. The proposed action will deploy internet to rural populations of Navajo County with insufficient access to broadband using microwave technology for transport. A summary of the project is provided below:

- NTUA will construct, operate, and maintain a new 180' self-supporting tower (SST) on Low Mountain-South Mesa, within the tower site (100 ft. x 100 ft., 10,000 s.f. = 0.23 acres). The proposed tower site coordinates: 35°54'33.26" N/ 109°57'45.23" W.
- NTUA will extend a single-phase overhead powerline 681 feet to the tower site from their existing powerline, which they will construct, operate, and maintain.
- NTUA upgraded an existing unpaved road 90 ft. (length) x 20 ft. (width) = 1,800 s.f. = 0.04 acres, from County Road 447 to the tower site.
- NTUAW will install broadcast equipment on the tower and NTUA will install Microwave equipment for transport.

The proposed facility location was selected because it meets both the operational objectives for optimal signal coverage and capacity in the project area. A radio frequency (RF) search ring was established to identify candidate locations that would improve connectivity in an area that currently lacks reliable wireless service. Existing wireless communication sites located approximately 7 to 8 miles away were determined inadequate as options for providing sufficient coverage of the intended service area.

The tower installation will be performed by NTUA's Contractor who will assemble and stack the telecommunication tower structure. The tower will have nine sections, 20 ft. in length. This structure will be attached to a concrete foundation consisting of three concrete piers or one mat foundation. It may also have combination of the two (piers/mat). The steel structure will support any appurtenances such as radios, antennas, cables, lighting devise, among others. The tower site leased area will be enclosed by a standard fence of minimum six (6) feet tall with barbed wire. The site will be landscaped using weed barrier textile, with 2-3 inches of gravel. A new telecom equipment cabinet (20 s.f. in size) will house network electronics. The cabinet will be situated on a concrete slab foundation with space for a backup generator and fuel tank. The tower site tract will be fenced and secured.

The new Powerline Extension will be constructed by NTUA electrical installation personnel from the last Point of Intersect of an existing powerline to the tower site leased area. The powerline extension is 681 feet from the last point of interconnect to the Tower tract (100 ft. x 100 ft.). The new utility poles will be 40 feet in length and installed using an auger to a depth of approximately 4-6 feet below grade, leaving a height of 35 feet above grade.

Map shown below in Figure 3, shows NTUA's tower & powerline installation in the Navajo Nation:



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Figure 3: NTUA Fiber and Powerline Installation



According to the Low Mountain Land Use Planning document, the project area is in a rural area with no commercial or industrial zones. Land uses within the project area includes very limited residential, agricultural, and livestock grazing. The project consists of installing a tower, powerline extension, upgrading an unpaved road and installing broadcast equipment all within a ROW corridor; and does not involve any encroachment onto these land uses.

The construction related impacts are limited to the operation of some standard diesel earth moving machinery, equipment, and installation cranes for powerlines, and tower erection. Machinery and equipment (pickup trucks, auger equipment, excavators, and water trucks) will be used to support construction and installation activities.

The design features were developed to avoid or eliminate adverse environmental impacts from project activities and are incorporated as an integral part of the proposed action. Design features are based on industry standards as well as operating protocols and procedures that have proven effective in similar circumstances and conditions.

- In the event of a discovery (discovery is defined as encountering any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or locations associated with Native American religious/traditional beliefs or practices), all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Heritage & Historic Preservation Department must be notified at 928-871-7148.
- Topsoil will be segregated from the subsoil (without mixing), stockpiled separately from other soil materials, and maintained for future use in rehabilitating the site.
- After construction is complete, salvaged topsoil will be redistributed evenly over disturbed surfaces.
- Machinery will be cleaned off-site prior to construction.

Impacted areas will remain in the designated ROW corridor. Construction will begin as soon as the project is authorized. Estimated time for completion is 12 weeks. The work schedule is expected to be 5 days a week, daylight hours only (8am to 6pm).

2.3 No Action Alternative

Under the "No Action" alternative, the project would not move forward, and Low Mountain and Jeddito communities on the Navajo Nation, within Navajo County would remain unserved/underserved with no access to broadband services. No construction impacts would occur to the ROW's, as described under the proposed action alternative. None of the benefits outlined in 2.0 would occur under the no action alternative.

2.4 Alternatives

Based on the proposed Tower, Powerline Extension, and Access Road upgrade, a total of two (2) alternatives were considered. The Proposed Action Alternative was selected for the comprehensive analysis and final design because it would have positive benefits for local residents and fulfill the requirements of the grant. The Proposed Action Alternative consists of installing a new self-supported tower (SST) at 180 feet,



extending a power connection from an existing NTUA powerline to the new facility, installing broadcast equipment and upgrading an existing unpaved access road. Construction of the proposed project will be within the Rights of Way corridor.

No alternative sites were considered because the tower site selection was based on RF mapping, and there was only one feasible power line route that the existing power grid could accommodate.

Two (2) alternatives were considered during the EA process:

- **Proposed Action Alternative:** Installation of a new self-supported tower (SST), overhead powerline extension, upgrade of an unpaved access road and installation of broadband equipment; all within an established Rights of Way easement.
- **No Action Alternative:** No broadband installation; coverage in Low Mountain and Jeddito communities of the Navajo Nation, Navajo County, Arizona would remain unserved/underserved.

2.5 Alternatives Considered but Eliminated from Further Discussion

As discussed in Section 2.4, there were no alternative sites considered during the EA process. The proposed broadband deployment is based on RF mapping. Historically, the FCC utilized RF mapping to demonstrate gaps in coverage and/or dropped calls data to document the need for "capacity" sites. The intention of the proposed facility is to provide improved coverage and connectivity to an area for which RF mapping demonstrates very poor coverage. The use of RF mapping quickly eliminated other alternatives due to poor RF qualities. No alternative sites were considered.

3.0 Description of the Affected Environment

A determination was made on which environmental resources are likely to be impacted by the proposed action. The project is specifically designed to produce certain environmental benefits and to avoid or mitigate others, some environmental resources were dismissed or eliminated. The remaining resources are analyzed further below to assess the established baseline, likely impacts of the proposed action, and to determine what actions should been taken to mitigate adverse impacts. The following resources were not carried forward for analysis because no impacts on those resources are anticipated: climate, hazardous materials, transportation, recreation, and socio-economic resources.

3.1 Noise and Light

The project area contains a mixture of rural residential, agricultural, and livestock grazing land use properties. The residences on the slope of the mesa are shielded from the site by topography and no detectable noise or light from the construction activities and ongoing operations should reach these locations. Residential dwellings are located approximately .5 mile from the site on the back slope of the mesa to the southeast. The communications system will not affect any change in the noise as it currently exists due to the rural site setting. The proposed tower site has no existing communication broadcast stations within the project site area, and there are no local receptors within one-half mile of the site. Due to the tower height of less than 200', there will not be lighting in accordance with FAA regulations (See FAA Advisory Circulars. 47 CFR §§ 17.21-17.58.) The tower and powerline implementation would result in a



temporary increase in noise levels during the construction period. Noise level increases would be localized to the area immediately around the construction site. Construction would only occur during daylight hours.

3.2 Air Quality

The Navajo Nation is designated as a Class II area and "unclassifiable/attainment" for National Ambient Air Quality Standards (NAAQS). The criteria include pollutants such as nitrogen oxides, sulfur oxides, particulate matter, ozone, carbon monoxide, and lead. According to the Environmental Protection Agency's (EPA) and Air Data's Air Quality Monitors App¹, the project area is outside of any non-attainment area for criteria pollutants. (See Code of Federal Regulations: 42 U.S.C. §7401 et seq. (1970))

The nearest air quality monitoring records are for Coconino County, which is 135 miles to the west of the project area. Average daily air quality index (AQI) values from 2019 through 2022 for Coconino County, Arizona were acquired from the EPA's Air Data Quality Tracker². On average, the project area has 314 days of "good" air guality, 50 days of "moderate" air guality, and 0 days of air guality that is "unhealthy for sensitive groups." Most days of moderate air quality occur between April and September. The project will necessitate some heavy construction diesel machinery that will release limited emissions during construction. The proposed tower is in a very remote location that is rarely accessed by the public. All construction work for the project is routine and within the technical capacity of NTUA, which has installed similar facilities at several locations under similar federal funding contract agreements. As an independent utility owned solely by the Navajo Nation, a sovereign tribal nation, NTUA has federal authorization to operate as a self-regulating entity to monitor occupational safety and health OSHA guidelines, as well as the International Building Code (IBC). All construction work and ongoing maintenance will be conducted by trained personnel that will have the required occupational and safety certifications for tower and powerline construction. Specifically, the tower facility compound will be fenced and secured from the public, during and after construction. All tower construction will be conducted under the latest building and structural IBC codes. NTUA will construct the powerline extension in accordance with its internal safety protocols and procedures, which supersede NTIA requirements.

3.3 Geology and Soils

The project area is within the Black Mesa Basin of the Colorado Plateau, with the Defiance uplift to the east. The Sedimentary rocks of the Late Cretaceous Mesaverde Group outcrop in the area and consist of gray to buff sandstone with interbedded shale and coal. These rocks host the only large coal deposits in Arizona (84-88 Ma). (2000 Geologic Map of Arizona: Arizona Geological Survey Map 35, 1 sheet, scale 1:1000,000). The proposed tower site, powerline extension, and access road were evaluated in the Natural Resources Conversation Service (NRCS) online Web Soil Survey.³ The site occurs on soils classified as "Rizno-Tekapo family-rock outcrop complex, 2 to 45 percent slopes." These are somewhat excessively drained soils of very high runoff class. The soil is typically 11 to 21 inches deep over solid bedrock.

Geotechnical borings encountered silty sand underlain by sandstone and shale. Groundwater was not encountered in the borings during drilling. Drilling logs indicate silty sand; light brown, dry, sandstone: light brown, moderately hard to hard; Shale: gray, moderately hard (boring logs Western Technologies

¹ (https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors)

² (https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors)

³ https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Geotechnical Report, 9-14-20). Mineral and paleontological resources are scarce on the mesa top where the project site is located. There would be minimal effect to geologic, mineral, or paleontological resources.

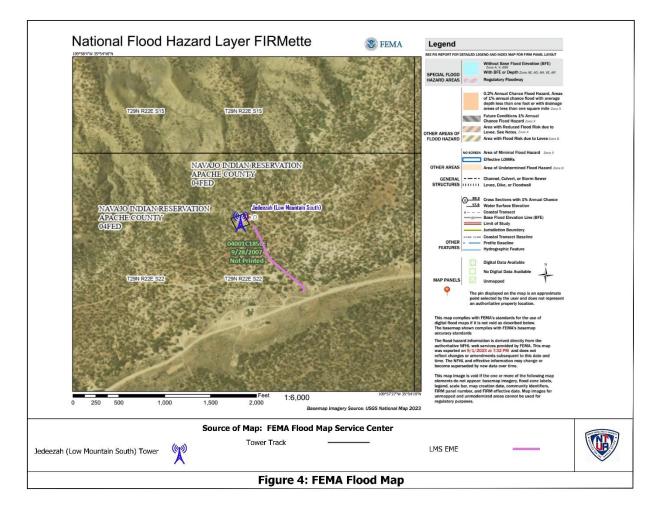
3.4 Water Resources

The project site is within the Polacca Wash watershed (15020013)⁴. Surface waters do not occur at or near the mesa edge. The project is within the Colorado Plateau's aquifer system, where groundwater depths are variable depending on the substrate and impermeable layers. Groundwater is not anticipated at the mesa edge. There are no water sources, uses, or rights in the vicinity of the project site. Water resources would remain unaffected. A Water Consultation Review was conducted by the Navajo Environmental Protection Agency, Water Quality/PDES Program; a determination of No required coverage under the CWA Sec 404 Dredge & Fill permit; No 401 WQ certification required. In addition, the project site was evaluated for potential impacts to waters by Jones and DeMille Engineering, indicating "the site is in a flat area atop a ridge, where natural channels do not occur. The proposed powerline and access road cross similar terrain on the south-facing slope of the ridge; no natural channels occur within or near the area. There are no jurisdictional channels that would require a Section 404 permit; A Section 401 Certification will also not be required" (Appendix G)

⁴ (https://msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl); accessed 1/18/23.



Figure 4: FEMA Flood Data Map





3.5 Biological Resources

Since the NTUA project takes place entirely within an impacted area for a tower, powerline extension, and access road that has full biological and cultural clearances from the Navajo Nation, this section draws heavily upon the conclusions of the Navajo Nation Fish and Wildlife Department and the Navajo Nation Heritage & Historic Preservation Department. (Appendix B & I)

Federal, State, and Tribal websites and information were reviewed to determine if the proposed aerial powerline route transects or is within the immediate vicinity of environmentally sensitive or unique geographic areas of notable recreational, ecological, cultural, scenic, or aesthetic importance. NTUA reviewed available online maps depicting federal wilderness areas, as well as the Navajo Nation Forestry Department's Woodland Inventory Analysis for the project area. A review of the Low Mountain Chapter and Jeddito Chapter Woodlands Report indicates the project site is within a Pinyon Juniper (PJ) coverage area, with a Crown Density Class of 26% - 50%. (Appendix E)

The Navajo Nation Department of Fish and Wildlife (NNDFW) performed an analysis of the project site in comparison to known biological resources. The Biological Resources Compliance Form (BRCF) was approved by the NNDFW on September 25, 2020, and the results are summarized & analyzed in this section. There are no identified species of concern within relative proximity to the project site. The project was evaluated in the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system on July 5, 2023.

3.5.1 Threatened and Endangered Species

NTUA evaluated the proposed installation's potential to significantly impact federal, state, and tribal protected species and their associated habitats. NTUA utilized species and habitat data referenced within the Biological Resources Compliance review by the Navajo Nation Department of Fish and Wildlife (NNFWD), and the USFWS Information for Planning and Consultation (IPaC.)

The Navajo Nation government has sovereign authority to manage and control their natural resources; and maintains an Endangered Species list. On September 10, 2008, the Navajo Nation Council approved the Biological Resource land Use Clearance Policies and Procedures (RCP), as defined by Navajo Nation Code 17 NNC § 500 et. Seq., to establish policies, procedures, and regulations that protect the biological resources of the Navajo Nation. The RCP identifies the project site as "Area 3: Less Sensitive Area, indicating this area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well-spaced across the landscape." The NNHP provided a Data Response for the project in Area 3 that states that there are no known or potential species of concern; NTUA received a Biological Resource Compliance Form (BRCF) reference number 20amco101, concurred by the Director of the NNFWD on September 25, 2020. The project is compliant with the Endangered species Act and the NESL.

The USFWS Information for Planning and Consultation (IPaC) was accessed on July 5, 2023, USFWS Species List, Arizona Ecological Services Field Office. The results of the IPaC review identified one (1) Threatened Species, one (1) Endangered, and One (1) Candidate; as well as proposed and final designated critical habitat, that may occur within the boundary of the proposed project and/or may be affected by the project. The species list fulfills the requirements of the U.S. Fish and Wildlife services under section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), The USFWS responded that "THERE



ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION". The Biological Resources Compliance Form (Appendix B), NNHP analysis of known biological resources (Appendix C), USFWS list of threatened and endangered species (Appendix D) documents are provided. The following summarizes NTUA's review and coordination with the NNFWD and USFWS.

The project site is located on the USGS Quadrangles (7.5 Minute) map sector, Beeshshsikad Spring (35109-H8)/ AZ. The official species list identified the following species (Appendix C) as potentially occurring within the project area:

Taxon	Name	Species Habitat	Status
Mammals	Mexican Wolf (Canis lupus bailey)	No critical habitat has been designated for this species. The NNDFW list the Mexican Wolf as Extirpated, NESL Group 1: Those species or subspecies that no longer occur on the Navajo Nation, NESL version 4.2 February 2020. ⁵ Currently, Wolves have been confirmed making visits to tribal lands south of I-40 which is 80 miles south of the project site, and fewer than 100 Mexican wolves live in NM & AZ. ⁶ U.S. Fish and Wildlife Service (USFWS) Information for IPaC system determined the official species listing as follows, which was used to assess impacts. ⁷	Endangered (Federal); Extirpated (NESL)
Birds	Golden Eagle (Aquila Chrysaetos)	Potential Species, includes those species or subspecies whose prospects of survival or recruitment are likely to be in jeopardy in the foreseeable future. Eagles are traditionally important to the Navajo People and are an important part of naturally functioning ecosystems of the Navajo Nation. Both the Golden Eagle and Bald Eagle are native breeding species of the Navajo Nation that are considered "endangered" under Navajo Nation Code (Chapter 17 § 507a). Both species are also protected from unlawful take under Navajo Nation code Chapter 17 § 505 and are federally protected from take under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Breeding/Nesting Season includes the dates beginning January 15th to July 15th any given year. Potential habitat: Golden Eagles	Endangered (Federal); Endangered (NESL); G3/ BGEPA/ MBTA: Potential Species

Table 2: Federal and Navajo Endangered Species Listing

⁵ Mikesic, D,G. 2008. Species Account for Canis lupus bailey, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf), page 124

⁶ (nndfw.org/Mexicanwolvesonthenavajonation_csmith.pdf)

⁷ https://www.fws.gov/species/mexican-wolf-canis-lupus-baileyi



	Golden Eagle (Aquila Chrysaetos)	(includes steep cliffs with sheltered ledges, potholes, or small caves for nest placement, that are typically \geq 30 m in height, and adjacent to Eagle foraging range of desert grasslands or desert scrub) ⁸ . The critical habitat does not occur within 1-3 miles of the project site. The project would have no effect on the Golden Eagle. The nearest critical habitat is over 50 miles away. Suitable riparian habitats as described in (Mikesic, D.G. 2008, Species Account for Aquila chrysaetos)	Endangered (Federal); Endangered (NESL); G3/ BGEPA/ MBTA: Potential Species
Birds	Southwestern willow flycatcher (Empidonax traillii extimus)	NESL G2/ listed endangered 27 FEB 1995 (60FR10694) with Critical Habitat proposed 12 NOV 2004 (69FR:60705); MBTA. Breeding range includes AZ, NM, southwestern CO, and southern portions of CA, NV, and UT. Breeding may occur at any elevation (except possibly above 2600m) throughout Navajo Nation where appropriate habitat exists. Breeding is known to occur along the San Juan and Colorado Rivers. Migrant flycatchers have been found in less dense or abundant riparian habitat across the Navajo Nation. SW willow flycatcher nesting is in dense riparian vegetation near surface water or saturated soil; either in monotypic or mixed stands of native (e.g., willow) and/or exotic (e.g. tamarisk or Russian olive) species, with or without an over-story. Avoidance: No activity with potential habitat of active nest from1 MAY to 31 AUG; buffer will likely be less depending on activity type and noise level. No activity in migratory habitat from 1 MAY to 15 JUN. ⁹ The critical habitat does not occur within 1-3 miles of the project site. The project would have no effect on the Southwestern willow flycatcher.	Endangered(NESL) G2/ MBTA

⁸ Mikesic, D,G. 2008. Species Account for Empidonax aquila chrysaetos, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf), page 27

⁹ Mikesic, D,G. 2008. Species Account for Empidonax traillii extimus, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf), page 7



	Peregrine Falcon (Falco peregrinus	Navajo/Federal Statuses: NESL G4 / delisted from endangered 25 AUG 1998 (64FR:46542); MBTA. ¹⁰ Peregrine Falcon breeds throughout much of U.S., and in Canada and Mexico. Breeding occurs across the Navajo Nation where appropriate habitat exists, including but not limited to, Chuska Mountain Range, Canyon de Chelly, Black Mesa and north to Glen Canyon, the Dilkon-buttes region, and the canyon reaches of the San Juan, Colorado and Little Colorado Rivers. Nests on steep cliffs >30 m tall (typically 45 m) in a scrape on sheltered ledges or potholes. Foraging habitat quality is an important factor; often, but not always, extensive wetland and/or forest habitat is within the falcon's hunting range of 12 km. Variability in topographic features, such as elevation and slope, may also indicate the availability of prey. Avoid activity 1 MAR to 31 JUL. ¹¹ The critical habitat does not occur within 1-3 miles of the project site. The project would have no effect on the Peregrine Falcon.	Endangered (Federal) (NESL) G4-listed a non- Endangered
Birds	Mexican spotted owl (Stix occidentalis lucida)	The NESL does not list the Mexican spotted owl as a potentially threatened species near the project site. Unlike most owls, Mexican spotted owls have dark eyes. They are an ashy-chestnut brown color with white and brown spots on their abdomen, back and head. Their brown tails are marked with thin white bands. They lack ear tufts. Young owls less than 5 months old have a downy appearance. Females are larger than males. Owls are unlikely to forage in the project area due to the lack of suitable riparian or vegetated habitats; however, if they were to forage through the area, the nocturnal owls would be unlikely to encounter daytime project activities. Any owls in the area during project activities would be incidental and would avoid project disturbance. ¹² The USFWS has identified the Mexican spotted owl as one of five threatened, endangered, or candidate species on its species list, indicating, "There is final critical habitat for this species. This location does not overlap the critical habitats, living in rocky-canyon	Threatened (Federal); (NESL)

¹⁰ Mikesic, D,G. 2008. Species Account for Falco peregrinus, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf), page 124

¹¹ USFWS ESL https://fws.gov/species/peregrine-falcon-falco-peregrinus

¹² Mikesic, D,G. 2008. Species Account for Stix occidentalis lucida, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf), page 30



	Mexican spotted owl (Stix occidentalis lucida)	environments, especially steep canyon walls with large vertical cliffs. Cliff faces contain numerous caves and ledges that create protected microsites for nesting and roosting, and canyon walls are typically dissected by narrow, tributary canyons that provide relatively cool and humid roost and nest sites. (Rinkevich and Gutiérrez 1996, Johnson 1997, Willey 1998a). The undertaking shall avoid the Migratory Bird breed season of 15 MARCH – AUGUST 15 or surveys will be required. NTUA ensures all above-ground utility poles conform to a raptor-safe, power pole design standard (Raptor Electrocution Prevention Regulations). All guy wires shall be marked with highly visual daytime markers to prevent collisions within the RSA. All project activities, construction, and maintenance shall avoid the Mexican Spotted Owl breeding and nesting season beginning 15 FEB – 1 SEPT of any year. ¹³ Suitable canyon nesting habitat does not occur within 1-3 miles of the project site. The project would have no effect on the Mexican spotted owl.	Threatened (Federal); (NESL)
Birds	Yellow-billed Cuckoo (Coccyzus Americanum).	Threatened. There is a final critical habitat for this species. Your location does not overlap the critical habitat. The NNDFW list the Yellow-billed Cuckoo, NESL Group: G2/listed threatened 13OCT2014 (79FR:59991) with Critical Habitat proposed revision 27FEB2020 (85FR:11458); MBTA. ¹⁴ Based on the NNDFW list species request for the project area; The Yellow-billed Cuckoo was not listed as a potential threat. It indicated the western U.S. cuckoo population (which includes the Navajo Nation) is comprised of rare, local breeders in disjunct riparian habitats of major river valleys. Breeding may occur at all elevations throughout Navajo Nation, but currently only known from several sections of the San Juan River. ¹⁵ The San Juan River is located 131 miles away from the project site. U.S. Fish and Wildlife Service (USFWS) Information for IPaC system determined the official species listing as follows, which was used to assess impacts. ¹⁶	Threatened (Federal)

¹³ USFWS ESL (https://ecos.fws.gov/ecp/species/8196)

¹⁴ (www.nndfw.org/nnhp/nnhp_home.htm). (Coccyzus Americanum)

¹⁵ (www.nndfw.org/nnhp/nnhp_home.htm) Thamnophis eques megalops

¹⁶ USFWS ESL (https://ecos.fws.gov/ecp/species/8196)



Reptiles	Northern Mexican Gartersnake (Thamnophis eques megalops)	Threatened. There is a final critical habitat for this species. Your location does not overlap the critical habitat. Based on the NNDFW list species request for the project area, there is no listing for the Northern Mexican Gartersnake as an endangered species in the Navajo Nation registry U.S. Fish and Wildlife Service (USFWS) Information for IPaC system determined the official species listing as follows, which was used to assess impacts in 5.0	Threatened (Federal)
Insect	Monarch Butterfly (Danaus plexippus)	The NESL does not list the Monarch Butterfly as a potentially threatened species near the project site. Based on the requested NNDFW species list, there is no listing for the Monarch Butterfly as an endangered species in the Navajo Nation registry. ¹⁷ The USFWS listed the Monarch Butterfly as a Candidate, no critical habitat has been designated for this species. The monarch butterfly feeds on the nectar of various flowers found in fields, open areas, gardens, and along roadsides, but only breed where milkweed is present. Milkweed is a plant species that may potentially occur in previously disturbed areas such as roadside rights-of-way, including along the proposed fiber route. Note that the entirety of the proposed route will occur within existing utility rights-of-way, primarily consisting of gravel and repeatedly disturbed (i.e., mowed) areas, and will predominantly consist of aerial fiber installed on existing poles. Additionally, the migration season for the Monarch butterfly within the project area extends from June to October. The proposed fiber deployment is currently planned for Q4 2023 or Q1 2024, therefore, no impact to milkweed or this species is anticipated. Further, at this time the monarch butterfly is a federal Candidate species and is not afforded the protections granted to species listed under the ESA. Suitable nesting habitat does not occur within 1-3 miles of the project site and therefore the project would have no effect on the Monarch Butterfly. ¹⁸	Candidate (Federal); (NESL) does not list as a potentially threatened species

¹⁷ Mikesic, D,G. 2008. Species Account for Danoas plexinpus, Navajo Natural Heritage Program, Revised: 17 MAR 2008. (nndfw.org/nnhp/species_acct.pdf)

¹⁸ USFWS ESL (https://ecos.fws.gov/ecp/species/9743)



3.5.2 Critical or Threatened / Endangered Habitats

There are No critical habitats that occur within or near the project area according to the Navajo Nation Fish and Wildlife Department. (Appendix B)

3.5.3 Wetland Habitats

There are No critical habitats that occur within or near the project area according to the Navajo Nation Fish and Wildlife Department. (Appendix B) The project site is within the Polacca Wash watershed (15020013)¹⁹ Surface waters do not occur at or near the mesa edge. The project is within the Colorado Plateau's aquifer system, where groundwater depths are variable depending on the substrate and impermeable layers. Groundwater is not anticipated at the mesa edge. There are no water sources, uses, or rights in the vicinity of the project site; therefore, there would be no effect to wetland habitats.

3.6 Historic and Cultural Resources

On March 24, 1997, the Navajo Nation entered into an agreement with the National Park Service, US Department of the Interior for the assumption by the Navajo Nation of certain responsibilities pursuant to Section 101(d)(2) of the National Historic Preservation Act, 16USC § 470a et seq. The Navajo Nation Heritage & Historic Preservation Department Director formally was recognized as the Tribal Historic Preservation Officer (THPO) and assumed by this agreement, State Historic Preservation Officer functions for the Navajo Nation.

3.7 Archaeological Resources

Dinetahdoo Cultural Resources Management (DCRM) conducted a Class III cultural inventory of the site on October 7, 2020. No significant archeological resources were identified. The Navajo Nation Historical Preservation Department concurred with a finding of "NO Historic Properties Affected" on October 15, 2020; Cultural Resources Compliance Form (CRCF) number HPD-20-697. (Appendix I)

3.8 Architectural Resources

There are no structures within the project area and there are less than (30) scattered homesite lease sites within the view shed. No significant archaeological resources were determined or eligible were identified within the specific project area boundaries. Additionally, DCRM conducted an ethnography survey, consulting with the local chapter house staff, local medicine men, and residents. No historic or cultural resources were determined in the project area that would be affected by the project. The Navajo Nation, a Federally recognized Tribal Government, was consulted regarding the project, and did not identify any potential concerns.

¹⁹ (https://msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl); accessed 1/18/23.



3.9 Aesthetic and Visual Resources

The project is within a low-density and rural area as mentioned. The (681') power line extension will result in a minimum visual addition to an existing overhead NTUA powerline 500 feet east of the site that runs north south, with power connections to local residences. There are no detrimental effects to the aesthetic and visual resources.

3.10 Land Use

In November 2002, a Land Use Plan was developed for the Low Mountain. Currently, the plan does not include a technology plan or requirements for the project vicinity. The Navajo Nation does not have an adopted comprehensive land use plan or zoning regulations program in place. The Low Mountain Chapter lacks local governance certification granting it the ability to implement land use regulations.

3.11 Infrastructure

Community infrastructure is very limited in the project area. This includes the lack of drainage control structures, water/wastewater systems, and powerlines. All roads within the vicinity are BIA-Navajo Route Roads and Navajo County Roads which are undesignated and unpaved. The roads receive periodic routine maintenance by the Bureau of Indian Affairs Road Maintenance or the Navajo County Roads Departments. NTUA provides electricity, some water connections to the residences, and wastewater relies on septic systems. The powerline will be extended from NTUA's existing electrical system to the tower site, and the existing access road will be graded. NTUA will ensure the installation does not conflict with other utilities already located in the area.

3.12 Socioeconomic Resources

Pursuant to Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities:

According to the latest available 2021 US Census data, Low Mountain Chapter, Navajo County is one of the most rural and low-income communities within the Navajo Nation and the State of Arizona. It has a population of 576 people and an extremely low population density, which is 4.9 persons per square mile, as opposed to 64 persons per square mile in Arizona. The demographics of the community consist of 98% American Indian, 2% mixed American Indian and White or Black, and 0% White and Asian. The population is 52% male and 48% female. Age ranges for the population include 13% under the age of 9, 7% 10-19, 65% over the age of 18, and 20% over the age of 60. Veteran Status is 4.4% (Vietnam & Gulf-90s). Education statistics for the area indicate 77.7% of the population has a high school diploma, and 4.3% have a bachelor's degree or higher. Linguistically, children (5-17), 61% speak Navajo, and adults (18+) 84% speak Navajo. Economically, the median household income is \$11,666 to \$17,404. 72% earn less than \$50,000 annual income. A total of 87% of properties are owner-occupied. Low Mountain Chapter has a higher demographic index, more people of American Indian origin, lower income, a higher unemployment rate, and lower education than the state and USA. Within 5 miles of the proposed tower, up to 42 percent of



the population in each census block is below the poverty level and up to 98 percent is classified as Minority.

In addition, the latest available 2021 US Census data, Jeddito Chapter, Navajo County is also the most rural and low-income communities within the Navajo Nation and the state of Arizona. It has a population of 730 people and an extremely low population density, which is 7.4 persons per square mile, as opposed to 64 persons per square mile in Arizona. The demographics of the community consist of 93% American Indian, 6.% mixed American Indian and White or Black, and 1% White and Asian. The population is 52% male and 48% female. Age ranges for the population include 12% under the age of 9, 16% 10-19, 62% over the age of 18, and 26% over the age of 60. Veteran Status is 3.6% (Vietnam & Gulf-2001). Education statistics for the area indicate 70.9% of the population has a high school diploma, and 1.8% have a bachelor's degree or higher. Linguistically, children (5-17) 44% speak Navajo, and adults (18+) 83% speak Navajo. Economically, the median household income is \$11,843 to \$17,153. 81% earn less than \$50,000 annual income. A total of 67% of properties are owner occupied. Jeddito Chapter has a higher demographic index, more people of American Indian origin, lower income, a higher unemployment rate, and lower education than the state and USA. Within 5 miles of the proposed tower, up to 50 percent of the population in each census block is below the poverty level and up to 99 percent is classified as Minority.

The results of the Low Mountain and Jeddito Chapters' Census data, they are ranked lower than both the State of Arizona and USA average for lower income, higher unemployment rate, lower education, and more Native Americans. The two communities are predominantly rural communities of Arizona. The EPA's Environmental Justice Screening & Mapping Tool (ver. 2.2) was accessed and the results of the EJSCREEN report for the project site indicated it ranked lower than both the State of Arizona and USA average for particulate matter, ozone, diesel particulate matter, air toxics, cancer risks, traffic proximity, lead paint, superfund proximity, hazardous waste proximity, and wastewater discharge.²⁰

3.13 Human Health and Safety

The proposed tower is in a remote location that is rarely accessed by the public. All construction work for the project is routine and within the technical capacity of NTUA, which has installed similar facilities at over (100) locations under similar federal funding contract agreements. As an independent utility owned solely by the Navajo Nation, a sovereign tribal nation, NTUA has federal authorization to operate as a self-regulating entity to monitor occupational safety and health OSHA guidelines, as well as the International Building Code (IBC). All construction work and ongoing maintenance will be conducted by trained personnel that will have the required occupational and safety certifications for tower and powerline construction and to upgrade an access road.

²⁰ ejscreen.epa.gov/mapper/efscreen_SOE.aspx



4.0 Analysis of Environmental Impacts

NTUA ensures the NEPA analysis both short-term and long-term are considered for the potential significance of the project's required environmental impacts. All appropriate permits, consultations, modifications to the design, or other agreements will be complied with. The significance of the actions will take into consideration the context of the society, the affected region, affected interests, and the locality.

4.1 Noise and Light

The Jedeezah (LMS - Low Mountain South) Tower Site is in a rural remote area, and there are no local receptors within two miles of the site. All construction activities will be limited from 8 AM to 6 PM. The site is within 2,500 feet of a single residential property to the west and will have no adverse impact on the community regarding noise and light levels. Under the Proposed Action Alternative, short term impacts from machinery and equipment (pickup trucks, auger equipment, excavators, and water trucks) would occur during the construction phase of the tower, powerline, and road grading. These impacts would be temporary and minor, confined to the location of the noise-generating equipment. NTUA requires all workers to follow OSHA requirements for safety and protection (i.e. wearing hearing protection) and limiting working hours to the five (5) day workweek and not on weekends. The Proposed Action would not present long-term changes to the noise environment. The project does not anticipate indirect noise impacts.

4.2 Air Quality

The construction related impacts are limited to the operation of some standard diesel earth moving machinery, equipment, and installation cranes for powerlines, and tower erection. The project site construction will have no adverse impact in terms of air quality. Direct impacts during the construction phase of the project will generate particulate matter from soil disturbance. Fugitive dust emissions from machinery and equipment used during ground disturbance would be temporary and minor. Water trucks and other methods would be implemented to suppress dust emissions. Seeding and soil stabilization methods will be performed in accordance with SWPP BMPs. During the operational phase and maintenance of established facilities, there would be no emission of air pollutants. Under the No action Alternative, there is no impact to air quality.

4.3 Geology and Soils

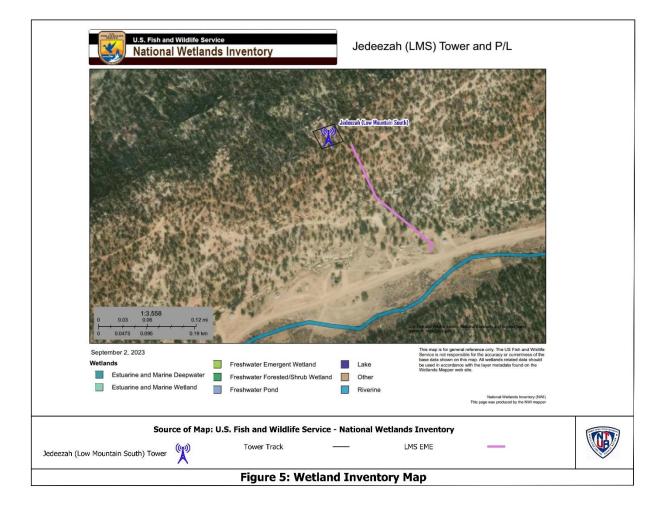
The installation of the tower, powerline and access road will require digging, trenching and removal of soil to build the foundation, install utility poles, and grade the existing road. All construction activities will be confined to the Rights of Way easement. The installation of the facilities is not anticipated to reach bedrock and is limited to 4-6 feet below grade. During construction, soil erosion and sedimentation would be minimized, and re-establishing vegetation post-construction would reduce erosion and fugitive dust. Under the No Action Alternative, there is no impact on the geology and soil of the area. Best management practices and compliance with National Pollutant Discharge Elimination System (NPEDS) requirements. A request to the Navajo Environmental Protection Agency, Water Quality/PDES Program was initiated for a Water Consultation Review of the project site. The result of the review determined coverage under the CWA Sec 404 Dredge & Fill permit; 401 WQ certification was not required.



4.4 Water Resources

The project site is within the Polacca Wash watershed (15020013). Surface waters do not occur at or near the mesa edge. The project is within the Colorado Plateau's aquifer system, where groundwater depths are variable depending on the substrate and impermeable layers. Groundwater is not anticipated at the mesa edge. There are no water sources, uses, or rights in the vicinity of the project site. A Water Consultation Review was conducted by the Navajo Environmental Protection Agency, Water Quality/Navajo Nation PDES Program; a determination of No required coverage under the CWA Sec 404 Dredge & Fill permit; 401 WQ certification was not required. (Appendix G) The project will not significantly impact water resources.

Figure 5: National Wetlands Inventory Map





4.5 Biological Resources

NTUA performed an informal assessment regarding the tower site, powerline extension, and access road. Habitats of concern for Threatened and Endangered Species from the Navajo Nation Fish & Wildlife/ Heritage Program and the US Fish & Wildlife Services were compared to the conditions on-site. No habitat of concern was identified or exist within the project area. Avoidance of disturbance to any sensitive terrestrial habitats will be achieved by ensuring all construction activities are within the ROW corridor. Equipment staging areas will utilize the established ROW. The project will have no impact on water resources and the design measures will result in No direct significant impact to biological resources.

4.6 Historic and Cultural Resources

NTUA contacted the Navajo Nation Heritage & Historic Preservation Department (NNHHPD) and the Arizona Ecological Services Field Office (USFWS) regarding the project. NTUA contracted an independent consultant, Dinetahdoo Cultural Resources Management, LLC (DCRM), to conduct a Class III cultural inventory (Archaeological Inventory Report) which included a Site Survey, Records search, and Ethnography. The report was submitted to the NNHHPD and received project compliance certification. No historic properties were found within the project area, installation methods will not directly impact the to the cultural resources (archeological and/or architectural history). NTUA will use an Unanticipated Discovery Plan during construction and cease work activities if archeological materials or human remains are discovered. The NNHHPD will be notified, and mitigation proceedings will be initiated. The project will result in no significant direct or indirect impact to cultural resources.

4.7 Aesthetic and Visual Resources

Aesthetic and visual resources near and around the project site feature natural wooded areas of Juniper and Pinion trees, snakeweed, cactus, yucca, and wolfberry plants. There are no recreational parks or historical buildings in the area. The construction will be temporary and minor. The installation of the tower, powerline extension, and access road will remain within the designated ROW. The design measures of the project will have no significant direct or indirect impact to aesthetic and visual resources.

4.8 Land Use

Although the land use in the area is predominantly for livestock grazing, the project site is located on a rocky hill with little to no grass or vegetation and is not suitable for livestock consumption. The local government has a Land Use Planning Committee which focuses on infrastructure and economic development near populated areas. The project site is in a very rural area that is prime for a tower site that will have a beneficial impact to the citizens of the Low Mountain and Jeddito communities. There will be no change in the land use designations and the proposed action will have no significant direct or indirect impact on land use.

4.9 Infrastructure

NTUA is an entity of the Navajo Nation which has territorial jurisdiction of electrical and water/wastewater systems on the majority of the Navajo Nation. NTUA works closely with the US Office of Environmental Health and Engineering in the design and implementation of water and wastewater systems, the only utility



in existence at the project area is a power line and water system that is operated and maintained by NTUA. Therefore, NTUA can identify and locate utilities within the project area. The project's access road will tie into an unpaved road operated maintained by the Bureau of Indian Affairs Navajo Route 447. Traffic control measures will be implemented for safety when necessary. The project site is in a very rural area that is prime for a tower site that will have a beneficial impact to the citizens of the Low Mountain and Jeddito communities. The proposed action will have No significant direct or indirect impact to infrastructure.

4.10 Socioeconomic Resources

NTUA accessed the EPA EJSCREEN resulting in a report for Low Mountain and Jeddito Chapters. These communities have a higher demographic index, more Native American population, lower income, higher unemployment rate, and lower education than the State of Arizona and U.S. averages, indicative of an Environmental Justice community. The project is anticipated to have a major beneficial impact on the citizens of these rural communities that lack access to broadband, unlike the urban areas.

Short term impacts from machinery and equipment (pickup trucks, auger equipment, excavators, and water trucks) would occur during the construction phase of the tower, powerline, and road grading. These impacts would be temporary and minor, confined to the location of the noise-generating equipment. NTUA requires all workers to follow OSHA requirements for safety and protection (i.e. wearing hearing protection) and limiting working hours to the five (5) day workweek and not on weekends. The project site construction will have no adverse impact in terms of air quality. Direct impacts during the construction phase of the project will generate particulate matter from soil disturbance. Fugitive dust emissions from machinery and equipment use during ground disturbance would be temporary and minor. Water trucks and other methods would be implemented to suppress dust emissions. For example, seeding and soil stabilization methods will be performed in accordance with SWPP BMPs. During the operational phase and maintenance of established facilities, there would be no emission of air pollutants. Post-construction, during the operational phase there would not be emissions or air pollutants or concerns related to noise. The proposed action will not result in any disproportionately high and adverse environmental effect to Environmental Justice communities, resulting in No impact.

4.11 Human Health and Safety

The proposed project is in a very remote location that is rarely accessed by the public. All construction work for the project is routine and within the technical capacity of NTUA, which has installed similar facilities at over (100) locations under similar federal funding contract agreements. As an independent utility owned solely by the Navajo Nation, a sovereign tribal nation, NTUA has federal authorization to operate as a self-regulating entity to monitor occupational safety and health OSHA guidelines, as well as the International Building Code (IBC). All construction work and ongoing maintenance will be conducted by trained personnel that will have the required occupational and safety certifications for tower and powerline construction. Specifically, the tower facility compound will be fenced and secured during and after construction from the public. All tower construction will be conducted under the latest building and structural IBC codes. NTUA will construct the powerline extension in accordance with its internal safety underground Storage Systems (USTs) in the project vicinity. There are two (2), Smoke Signal Trading Post (NAV 402) on Indian Road 67, in Smoke Signal, AZ approximately 25 miles northwest of the project site; Salina Springs Trading Post (NAV 240) on Indian Route 251 which is 50 miles north of the project site. The search result indicates there are no current open USTs or hazardous waste sites in close proximity of the



project site. The proposed action will have No significant direct or indirect impact to human health and safety.

4.12 Cumulative impacts

The Low Mountain local government maintains a Land Use Plan, adopted in November 2006. A "Community-Based Land Use Planning Committee" was established in May 2007. The Land Use Plan is utilized to accommodate the short and long-term basic needs of the chapter relating to community, economic, and infrastructure development; to preserve grazing, and culturally significant areas. The plan involves a review of the community and existing environmental conditions; future growth, and land use; goals, policies, and strategies to guide that growth.

In review of the Low Mountain Land Use Plan, the proposed project would be beneficial with the goals for infrastructure development in their community. The broadband services would enhance economic and infrastructure development. The construction impacts associated with the tower installation, powerline extension, and access road would be minimal.

5.0 Applicable Environmental Permits and Regulatory Requirements

The following Special Requirements shall be implemented as part of the proposed action to retain a finding of no significant impact:

- Development and adherence to an Unanticipated Discovery Plan during construction. NTUA will cease work activities if archeological materials or human remains are discovered. The NNHHPD will be notified, and mitigation proceedings will be initiated.
- NTUA shall limit hours of construction to normal business hours (8am to 6pm) and avoid working on weekends to reduce off-site noise impacts to sensitive receptors and comply with all applicable local, state, and federal regulations.
- NTUA shall use dust suppression techniques via water trucks or other methods to reduce fugitive dust emissions during construction.
- NTUA will identify and locate all existing utilities and use qualified workers trained and experienced to operate heavy machinery and equipment.



Requirement	Project Information/Applicability
All Resources	
National Environmental Policy Act (NEPA) of 1969 42 U.S.C. § 4321 et seq.	This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and in compliance with all applicable regulations and laws passed subsequently, including the President's Council on environmental Quality (CEQ) regulation and the U.S. Department of Interior requirements and guidelines listed in the Indian Affairs NEPA Guidebook (59 IAM 3-H). NEPA EA associated public involvement procedures were initiated in the form of support from the local governmental resolution.
Vegetation, Wildlife, and Fish	
Endangered Species Act of 1973 16 U.S.C. § 1531 et seq.	The project will have no effect on Threatened or Endangered Species. A Navajo Nation Fish & Wildlife Department was consulted for a biological evaluation and review. The project was found to be in compliance and approved for construction. The U.S. Fish and Wildlife Service (USFWS) was consulted utilizing Information for Planning and Consultation (IPaC) system on July 5, 2023. The delineation effort will characterize all areas to be protected and avoided during the project implementation.
Bald Eagle and Golden Eagle Protection Act (Eagle Act) of 1940 16 U.S.C. § 668-668d	The project will have no effect on Bald or Golden Eagles.
Migratory Bird Treaty Act (MBTA) of 1918 16 U.S.C. § 703-712 Responsibilities to Federal Agencies to Protect Migratory Birds Executive Order 13186	The project will have no effect on migratory birds.
Fish and Wildlife Conservation Act 16 U.S.C. § 2901 et seq. Fish and Wildlife Coordination Act 16 U.S.C. § 661 et seq.	The project will have not an effect on wildlife resources.

Table 3: Potential Applicable Statutory, Regulatory, and Other Requirements



Waters, Wetlands, and Floodplain Protection		
Clean Water Act 33 U.S.C. § 1251 et seg.	A request to the Navajo Environmental Protection Agency, Water	
Floodplain/Wetlands Environmental Review Requirements 10 CFR 1022.12	Quality/PDES Program was initiated for a Water Consultation Review of the project site. The result of the review determined No required coverage under the CWA Sec 404 Dredge & Fill permit; No 401 WQ certification was required. Jones and DeMille Engineering were also consulted to evaluate potential impacts to waters at the project site. They determined "the site is located in a flat area atop a ridge, where natural channels do not occur. The	
Floodplain Management	proposed powerline and access road cross similar terrain on the	
Executive Order 11988	south-facing slope of the ridge; no natural channels occur within or near the area. There are no jurisdictional channels that would	
Protection of Wetlands Executive Order 11990	require a Section 404 permitting with the Army Corp of Engineers. A Section 401 Certification will not be required either." (Appendix G) The project will not affect the jurisdictional wetland features.	
Air Quality and Greenhouse Gases		
The Clean Air Act, as revised in 1990 42 U.S.C. § 4701	The project does not anticipate acquiring any Air Permits. Dust suppression techniques using water trucks or other methods will be implemented to minimize fugitive dust during construction.	
Final Mandatory Reporting of Greenhouse Gases Rule 40 CFR 98 Federal Leadership in Environmental, Energy, and Economic Performance	The project does not anticipate acquiring any Air Permits. Dust suppression techniques using water trucks or other methods will be implemented to minimize fugitive dust during construction.	
Executive Order 13514 Cultural and Historic Resources		



Antiquities Act of 1906 16 U.S.C. § 431- 433 Historic Sites Act of 1935 16 U.S.C. § 461-467 National Historic Preservation Act (NHPA), as amended, inclusive of Section 106 54 U.S.C. § 306108 et seq. Archaeological Data Preservation Act of 1974 (16 U.S.C. § 469 – 469-1) Archaeological Resources Protection Act of 1979, as amended 16 U.S.C. § 469 a-c. Native American Graves Protection and Repatriation Act 25 U.S.C. § 3001 et seq. Indian Sacred Sites Executive Order 13007 American Indian Religious Freedom Act of 1978 (42 U.S.C. § 1996)	
Noise, Public Health, and Safety	
Noise Control Act of 1972 42 U.S.C. § 4901 et seq. Spill Prevention Control and Countermeasures Rule 40 CFR 112 Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. § 9601 et seq. Resource Conservation and Recovery Act 42 U.S.C. § 6901 et seq.	normal business hours, 8am to 6pm, in an effort to reduce construction noise to off-site sensitive receptors. NTUA will operate under the provisions of a Soil and Groundwater Management Plan to ensure their workers are protected from potentially contaminated media. NTUA will properly dispose of any soil/groundwater generated during construction.
The Toxic Substances Control Act 15 U.S.C. 2601 et seq.	Management Plan to ensure their workers are protected from potentially contaminated media. NTUA will properly dispose of any soil/groundwater generated during construction.
Federal Communications Commission	NTUA and its tower contractor will adhere to all FCC regulations regarding the installation of the tower and equipment.



Environmental Justice		
Environmental Justice	No additional requirements apply to the project for Environmental Justice. Impacts are anticipated to benefit disadvantaged rural communities.	
State, County, and Local Plan Consist	ency	
NPDES Permit	A request to the Navajo Environmental Protection Agency, Water Quality/PDES Program was initiated for a Water Consultation Review of the project site. The result of the review determined No required coverage under the CWA Sec 404 Dredge & Fill permit; No 401 WQ certification was required.	

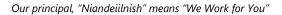


6.0 Consultations

NTUA initiated tribal consultation with appropriate Navajo Nation governmental Agencies and notified community stakeholders for support.

Table 4: Tribal Agency Consultations

Agency and Name	Consultation	Status		
Navajo Nation Department of Fish and Wildlife POB 1480 Window Rock, AZ 86515 928.871.6472	Biological Resources Consultation	Accounts Data request was initiated to NNDFW and ation a BRCF Review was submitted, The BRCF review resulted in a compliance approval on September 2 2020. A compliance form is available and referenced.		
Navajo Nation Heritage and Historic Preservation Department POB 4950 Window Rock, AZ 86515 928.871.7198	Historic Preservation Consultation	Copies of the Cultural Survey Report were sent to the Navajo Nation Heritage and Historic Preservation Department – Cultural Resource Compliance Section for review and determination. The Department approved a finding of "No Historic Properties Affected" for the project on October 22, 2020. A compliance form is available and referenced.		
NavajoEnvironmentalProtection Agency,WaterQuality/PDESProgramPOB 339Window Rock, AZ86515928.871.7690	Water Consultation Review	Water Consultation Review of the project site. The result of the review determined No required coverage under the CWA Sec 404 Dredge & Fill permit; No 401 WQ certification was required.		
Low Mountain Chapter Local Governance POB 4416 Blue Gap, AZ 86520 928.725.3700	Public Involvement	A community support resolution was approved by the Low Mountain Planning Committee and community members. The issue was discussed, debated, and voted on for approval. The Resolution was approved on July 30, 2020.		





7.0 Signatories

The following NTUA staff contributed to the research, consultation, and/or preparation of one or more components of this ER.

Thank you for the opportunity to prepare this NEPA ER and to assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Shannon Burnette, Assistant Manager, NTUA

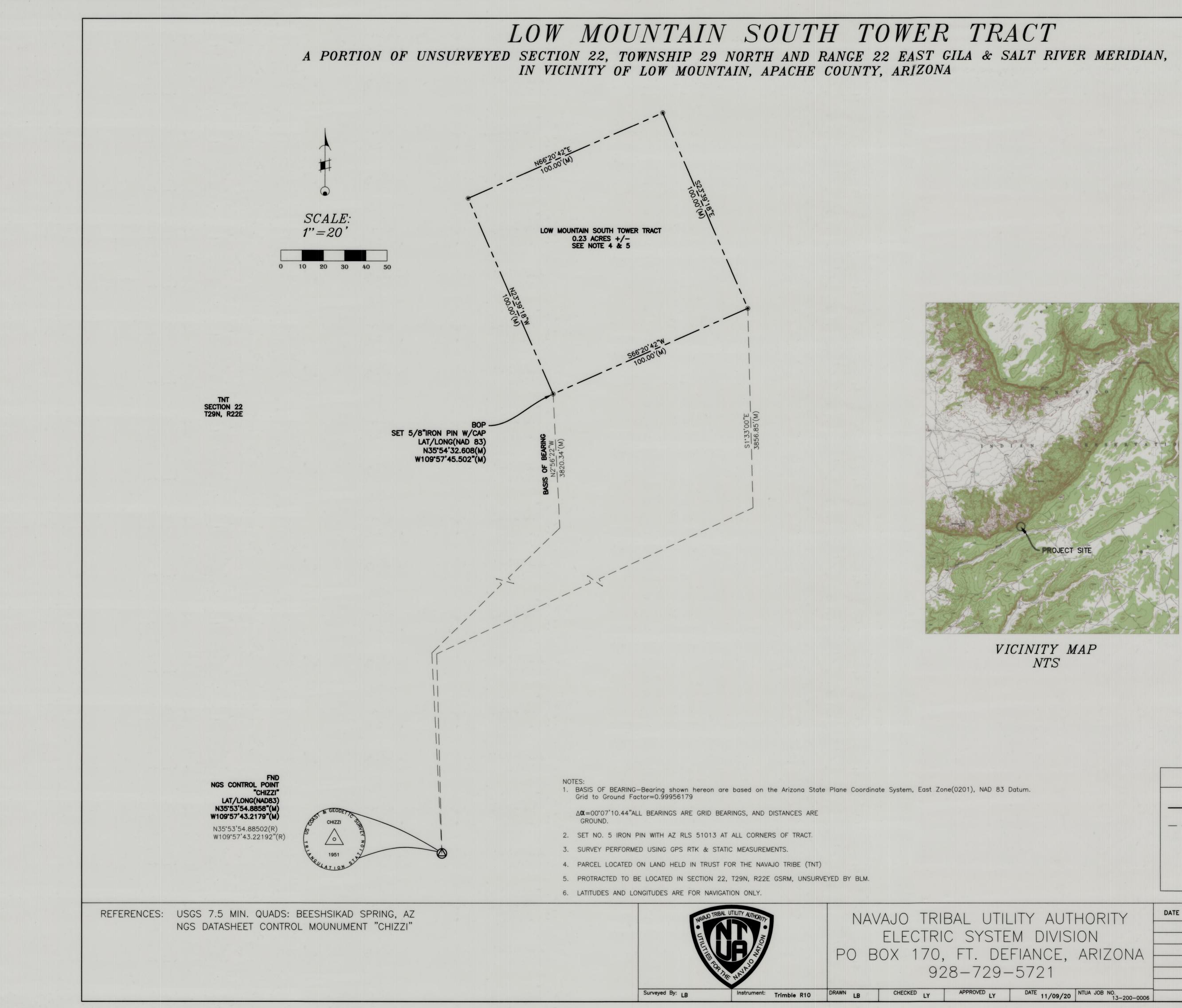
Bernardo Portilla, CEO, Americas Communications LLC, Project Coordinator

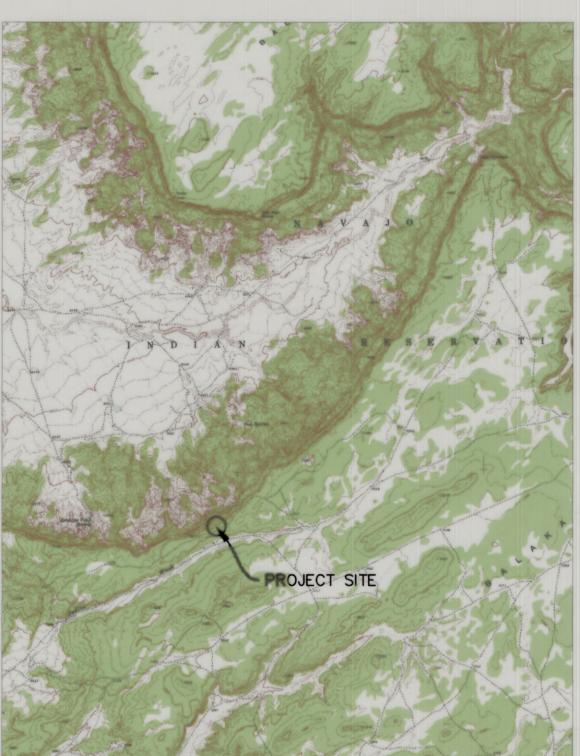
Elrena Mitchell, Rights of Way Consultant, Americas Communications LLC, Document Preparer



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Appendix A – Legal Plat





A LEGAL DESCRIPTION OF A PARCEL OF LAND FOR THE NAVAJO TRIBAL UTILITY AUTHORITY (NTUA) LOW MOUNTAIN SOUTH TOWER TRACT LOW MOUNTAIN, APACHE COUNTY, ARIZONA WORK ORDER NO. 132000006

A square tract of land whose sides are 100 feet in length for the Navajo Tribal Utility Authority, Low Mountain South Tower Tract, protracted to be situate in unsurveyed Section 22, of Township 29 North (T29N), Range 22 East (R22E), Gila and Salt River Meridian (G&SRM) locate on Navajo Nation Tribal Trust lands in Low Mountain Chapter Navajo Nation management district 7 unit 3 in the vicinity of Low Mountain, Apache County, State of Arizona, and being more particularly described as follows:

COMMENCING, at a found United States Coast and Geodetic Survey (USCGS) triangulation station named "Chizzi" a standard brass disk in good condition dated 1951;

THENCE, N 2° 56' 22" W the BASIS OF BEARING, a distance of 3,820.34 feet to a set 5/8 inch iron pin, 18 inches in length, with plastic cap AZ RLS 51013 the southwest corner of said tract and the POINT OF BEGINNING;

THENCE, N 23° 39' 18" W, a distance of 100.00 feet to the north west corner of said tract a set 5/8 inch iron pin, 18 inches in length, with plastic cap AZ RLS 51013;

THENCE, N 66° 20' 42" E, a distance of 100.00 feet to the north east corner of said tract a set 5/8 inch iron pin, 18 inches in length, with plastic cap AZ RLS 51013;

THENCE, S 23° 39' 18" E, a distance of 100.00 feet to the south east corner of said tract a set 5/8 inch iron pin, 18 inches in length, with plastic cap AZ RLS 51013;

THENCE, S 66° 20' 42" W, a distance of 100.00 feet to the POINT OF BEGINNING;

Being 0.23 acres, 10,000 square feet, more or less as calculated by computer software and subject, but not limited to, any and all existing easements, rights-of-way of record, cultural resources and other existing land rights located thereon.

SURVEYOR'S CERTIFICATE

I, Lemont L. Yazzie, Sr., due hereby certify that I am a Registered Professional Land Surveyor under the laws of the State of Arizona due hereby certify that this map correctly represents a Bonafide Survey made under my supervision during the month of September, 2020 the survey is true and complete and that all monuments shown actually exist as shown, that their positions are correct and that said monuments are sufficient to retrace the survey.



EXPIRES: JUNE 30, 2022

APPLICANT'S CERTIFICATION

Authority. to survey the location of the powerline right-of-way on and across the Navajo Nation, Apache County, Arizona; and to prepare this map; that the survey accurately represents the location of the tower tract; that cant" as the definite location of the powerline right-of-way shown thereby; and that the map has been prepared to be filed for the approval of the Secretary of the duly authorized representative as part

Date: 11/12/20

Navajo Tribal Utility Authority An Enterprise of the Navajo Nation

Subscribed and sworn to before me this day of Nov.,2020

ALVINA M REID	la Man
Notary Public, State of Arizona Apache County Commission # 561785 My Commission Expires February 09, 2023	Notary Public
and a second	

My Commission Expires: 02 09 2023

	LEGEND	
	PROPOSED TOWER TRACT	
	SURVEY TIE	
(M	MEASURED	
(R	RECORDED	
	SET 5/8" IRON PIN WITH PLASTIC CAP AZ RLS	5 51013

UTHORI VISION		DATE	REVISIONS		1320 Mountain Sc Jntain, Apac		
E, ARIZ	ONA –			STATE	COUNTY	DISTRICT	SHEET
				AZ	APACHE	CHINLE	1 OF 1
09/20 NTUA JOB NO	0. 13–200–0006						



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Appendix B - Biological Resources Compliance Form (BRCF)

BIOLOGICAL RESOURCES COMPLIANCE FORM NAVAJO NATION DEPARTMENT OF FISH AND 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 and Federal laws protecting biological resources including the Navajo Endangered Species and Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection and National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish and Wildlife Service if a Federally-listed species is affected.

PROJECT NAME & NO.: NTUA South Low Mountain

DESCRIPTION: The NTUA proposes to construct, operate, and maintain a telecommunications tower within a

100 ft. x 100 ft. tract, access road (89.45 ft.) and power line extension (680.72 ft). Total land use would be 0.74 acre.

LOCATION: 35°54'33.26"N 109°57'23"W, Low Mountain, Apache County, Arizona

REPRESENTATIVE: Elrena Mitchell for Americas Communications (contractor)

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: Request for biological compliance/04 SEP 2020/Bernardo Portilla

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: NA

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/22 SEP 2020

COPIES TO: (add categories as necessary)

2 NTC § 164 Recommendation:	Signature	Date
⊠Approval	Iloria M.	T _{mm} 9/25/20
Conditional Approval (with memo) OXOUS IVI.	IOM
Disapproval (with memo)	Gloria M. Tom, I	Director, Navajo Nation Department of Fish and Wildlife
Categorical Exclusion (with reque	st letter)	
□None (with memo)	-	

*I understand and accept the conditions of compliance, and acknowledge that lack of signature may be grounds for

the Department not recommending the above described project for approval to the Tribal Decision-maker.

C:\old_pc2010\My Documents\NNHP\BRCF_2020\20amco101.doc

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Page 2 of 2 NNDFW -B.R.C.F.: FORM REVISED 12 NOV 2009



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Appendix C – NNFWD, NESL Known Biological Resources Listing



PO BOX 1480 Window Rock, AZ 86515

P 928.871.6472 F 928.871.7603 www.nndfw.org

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04-September-2020 Elrena Mitchell America Communications LLC 6100 West Gila Springs Place Suite 7 Chandler, AZ 85226 elrenamitchell@gmail.com

SUBJECT: Navajo Tribal Utility Authority Cell Tower Site - Low Mountain South #1030, Access Road, and Power Line Extension

Elrena Mitchell,

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

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

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

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

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

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

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

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

Species

None

2. Potential Species

Species

AQCH = Aquila chrysaetos / Golden Eagle NESL G3 EMTREX = Empidonax traillii extimus / Southwestern Willow Flycatcher NESL G2 FE FAPE = Falco peregrinus / Peregrine Falcon NESL G4 STOCLU = Strix occidentalis lucida / Mexican Spotted Owl NESL G3 FT

3. Quadrangles (7.5 Minute)

<u>Quadrangles</u>

Beeshsikad Spring (35109-H8) / 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
Access Road	None	None	Beeshsikad Spring (35109-H8) / AZ	None	AQCH, EMTREX, FAPE	Area 3
Power Line	None	None	Beeshsikad Spring (35109-H8) / AZ	None	AQCH, EMTREX, FAPE	Area 3
Tower Tract	None	None	Beeshsikad Spring (35109-H8) / AZ	None	AQCH, EMTREX, FAPE, STOCLU	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 <u>https://www.nndfw.org/clup.htm</u>.

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.

<u>Golden and Bald Eagles</u>- 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 <u>https://www.nndfw.org/nnhp/docs_reps/gben.pdf</u>.

<u>Ferruginous Hawks</u> – Refer to Navajo Nation Department of Fish and Wildlife's Ferruginous Hawk Management Guidelines for Nest Protection (<u>https://www.nndfw.org/nnhp/docs_reps.htm</u>) for relevant information on avoiding impacts to Ferruginous Hawks within 1 mile of project location. <u>Mexican Spotted Owl</u> - Please refer to the Navajo Nation Mexican Spotted Owl Management Plan (<u>https://www.nndfw.org/nnhp/docs_reps.htm</u>) for relevant information on proper project planning near/within spotted owl protected activity centers and habitat.

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

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

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

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

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

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

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

Agency's Water Quality Program.

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

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

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6. Personnel Contacts

Wildlife Manager Leanna Begay 928.871.6450 Ibegay@nndfw.org

<u>Zoologist</u> Vacant 928.871.7070

Botanist Nora Talkington ntalkington@nndfw.org

Biological Reviewer Pamela Kyselka 928.871.7065 pkyselka@nndfw.org

GIS Supervisor Dexter D Prall 928.645.2898 prall@nndfw.org

<u>Wildlife Tech</u> Sonja Detsoi 928.871.6472 <u>sdetsoi@nndfw.org</u>

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_2014.pdf

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



PO Box 1480 Window Rock, AZ 86515 P 928.871.6472 F 928.871.7603 http://nnhp.nndfw.org

Invoice for 20amco101

Please make payable to NAVAJO NATION

Project Measurements

Total Number of Quads:	1
Number of Additional Quads:	0
Cost (\$75 plus \$5 each additional Quad):	\$75.00

(Please cut along the dashed line and return with payment)

Navajo Natural Heritage Program PO Box 1480 Window Rock, AZ 86515

\$75.00

PLEASE PAY THIS AMOUNT

Payment for Data Response 20amco101

Please make payable to NAVAJO NATION

Or, if you would like to pay with a credit card, fill out and return the Credit Card Authorization Form with the invoice stub.



9/4/2020

9/4/2020

THE NAVAJO NATION



JONATHAN NEZ | PRESIDENT MYRON LISTER | VICE PRESIDENT

Department of Fish and Wildlife Credit Card Authorization Form

Sign and complete this form to authorize the Navajo Nation Department of Fish and Wildlife to make a one-time charge to your credit card listed below.

By signing this form, you give us permission to charge your account for the amount indicated on or after the indicated date. This is permission for a single transaction only, and does not provide authorization for any additional, unrelated debits or credits to your account.

Please complete the information below:

I	authorize	the Department	of Fish and V	Wildlife	to charge my credit
(Full Name)					2
card account indicat	ed below for	\$75.00 on	or after $9/4$	2020	. This payment is for
		(Amount)	(D		
	Da	ta Request Repo	ort - 20amco1	01	
		(Description of Good/S			
		(f			
Billing Address				Pho	one
City State 7in				Em	
City, State, Zip				EII	nail
Account Type	Visa	Mastercard	AMEX	Ι	Discover
Cardholder Name					
Account #					
Expiration Date		C	VV2		
I					
Signature			Date		
- I authorize the above named by	siness to charge the	credit card indicated in	this authorization f	form accord	ling to the terms outlined above. This

I authorize the above named business to charge the credit card indicated in this authorization form according to the terms outlined above. This payment authorization is for the goods/services described above, for the amount indicated above only, and is valid for one time use only. I certify that I am an authorized user of this credit card and that I will not dispute the payment with my credit card company; so long as the transaction corresponds to the terms indicated on this form.

Department of Fish and Wildlife - P.O. Box 1480 - Window Rock, AZ 86515 - (928) 871 6450 - Fax (928) 871 7069



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Appendix D – USFWS Species List, Arizona Ecological Services Field Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE Arizona Ecological Services Field Office 9828 North 31st Ave #c3 Phoenix, AZ 85051-2517 Phone: (602) 242-0210 Fax: (602) 242-2513



July 05, 2023

In Reply Refer To: Project Code: 2023-0101119 Project Name: NTUA Tower, Access Road, & Powerline Extension - Jedeezah

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The Fish and Wildlife Service (Service) is providing this list under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The list you have generated identifies threatened, endangered, proposed, and candidate species, and designated and proposed critical habitat, that *may* occur within the One-Range that has been delineated for the species (candidate, proposed, or listed) and it's critical habitat (designated or proposed) with which your project polygon intersects. These range delineations are based on biological metrics, and do not necessarily represent exactly where the species is located. Please refer to the species information found on ECOS to determine if suitable habitat for the species on your list occurs in your project area.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect federally listed species and/or designated critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12. If the Federal action agency determines that listed species or critical habitat may be affected by a federally funded, permitted or authorized activity, the agency must consult with us pursuant to 50 CFR 402. Note that a "may affect" determination includes effects that may not be adverse and that may be beneficial, insignificant, or discountable. An effect exists even if only one individual

or habitat segment may be affected. The effects analysis should include the entire action area, which often extends well outside the project boundary or "footprint." For example, projects that involve streams and river systems should consider downstream affects. If the Federal action agency determines that the action may jeopardize a *proposed* species or may adversely modify *proposed* critical habitat, the agency must enter into a section 7 conference. The agency may choose to confer with us on an action that may affect proposed species or critical habitat.

Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event they become proposed or listed prior to project completion. More information on the regulations (50 CFR 402) and procedures for section 7 consultation, including the role of permit or license applicants, can be found in our Endangered Species Consultation Handbook at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 *et seq.*). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1,026 species of birds are protected by the MBTA, including the western burrowing owl (*Athene cunicularia hypugaea*). Protected western burrowing owls can be found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

If a bald eagle or golden eagle nest occurs in or near the proposed project area, our office should be contacted for Technical Assistance. An evaluation must be performed to determine whether the project is likely to disturb or harm eagles. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles (see https://www.fws.gov/law/bald-and-golden-eagle-protection-act and https://www.fws.gov/program/eagle-management).

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following web site: <u>https://www.fws.gov/program/migratory-bird-permit</u>. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital television, radio, and emergency broadcast) can be found at <u>https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation.</u>

The U.S. Army Corps of Engineers (Corps) may regulate activities that involve streams (including some intermittent streams) and/or wetlands. We recommend that you contact the Corps to determine their interest in proposed projects in these areas. For activities within a National Wildlife Refuge, we recommend that you contact refuge staff for specific information about refuge resources, please visit <u>this link</u> or visit <u>https://www.fws.gov/program/national-</u>

wildlife-refuge-system to locate the refuge you would be working in or around.

If your action is on tribal land or has implications for off-reservation tribal interests, we encourage you to contact the tribe(s) and the Bureau of Indian Affairs (BIA) to discuss potential tribal concerns, and to invite any affected tribe and the BIA to participate in the section 7 consultation. In keeping with our tribal trust responsibility, we will notify tribes that may be affected by proposed actions when section 7 consultation is initiated. For more information, please contact our Tribal Coordinator, John Nystedt, at 928/556-2160 or John Nystedt@fws.gov.

We also recommend you seek additional information and coordinate your project with the Arizona Game and Fish Department. Information on known species detections, special status species, and Arizona species of greatest conservation need, such as the western burrowing owl and the Sonoran desert tortoise (*Gopherus morafkai*) can be found by using their Online Environmental Review Tool, administered through the Heritage Data Management System and Project Evaluation Program (https://www.azgfd.com/wildlife/planning/projevalprogram/).

We appreciate your concern for threatened and endangered species. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If we may be of further assistance, please contact our Flagstaff office at 928/556-2118 for projects in northern Arizona, our general Phoenix number 602/242-0210 for central Arizona, or 520/670-6144 for projects in southern Arizona.

Sincerely, /s/

Heather Whitlaw Field Supervisor Attachment

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arizona Ecological Services Field Office

9828 North 31st Ave #c3 Phoenix, AZ 85051-2517 (602) 242-0210

PROJECT SUMMARY

Project Code:	2023-0101119
Project Name:	NTUA Tower, Access Road, & Powerline Extension - Jedeezah
Project Type:	Maintenance/Modification of Communication Tower
Project Description:	A proposed 180 ft. self supported Tower Site (100' x 100'), Access Road,
	and a 680.72 ft. Powerline Extension.

Project Location:

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@35.9084201,-109.9618342,14z</u>



Counties: Apache County, Arizona

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Mexican Wolf Canis lupus baileyi	Endangered
Population: Wherever found, except where listed as an experimental population	
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/3916</u>	
BIRDS	
NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus	Threatened
Population: Western U.S. DPS	
There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/3911</u>	
INSECTS	
NAME	STATUS
Monarch Butterfly Danaus plexippus	Candidate
No critical habitat has been designated for this species.	

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> 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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS FAQ

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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <u>Avian</u> <u>Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>Rapid Avian Information</u> <u>Locator (RAIL) Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

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 <u>RAIL Tool</u> 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS Integrative Statistical</u> <u>Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic</u> <u>Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

WETLANDS

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of</u> <u>Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

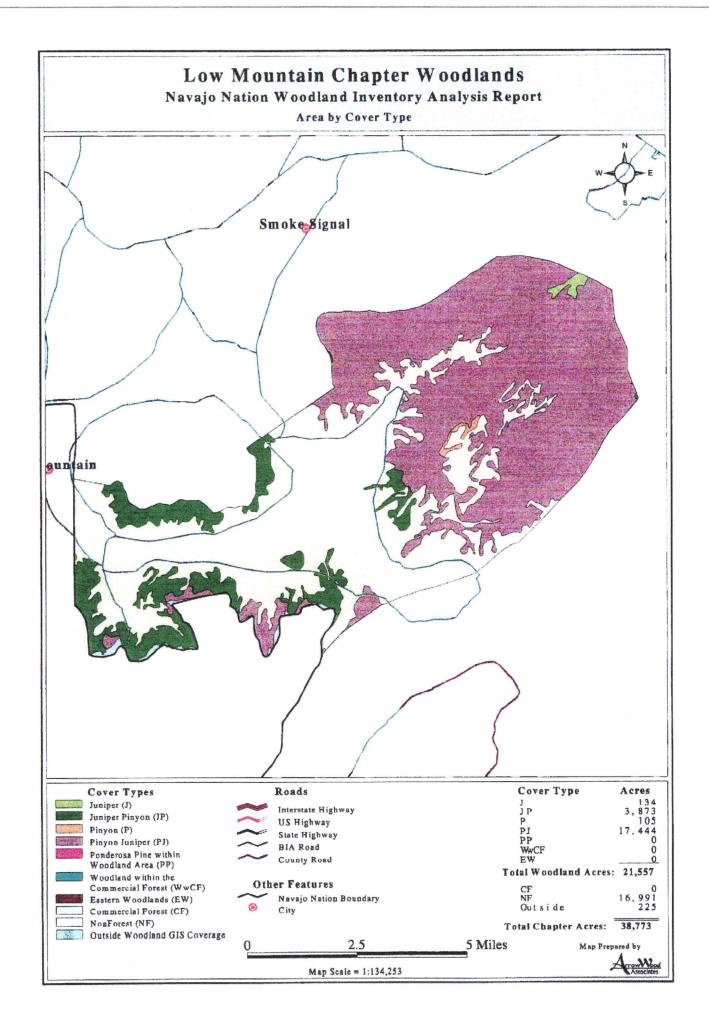
Agency: Navajo Nation, Arizona, New Mexico & Utah Elrena Mitchell Name: Address: 6100 W. Gila Springs Place, Suite 7 City: Chandler State: AZ Zip: 85226 Email elrenamitchell@gmail.com

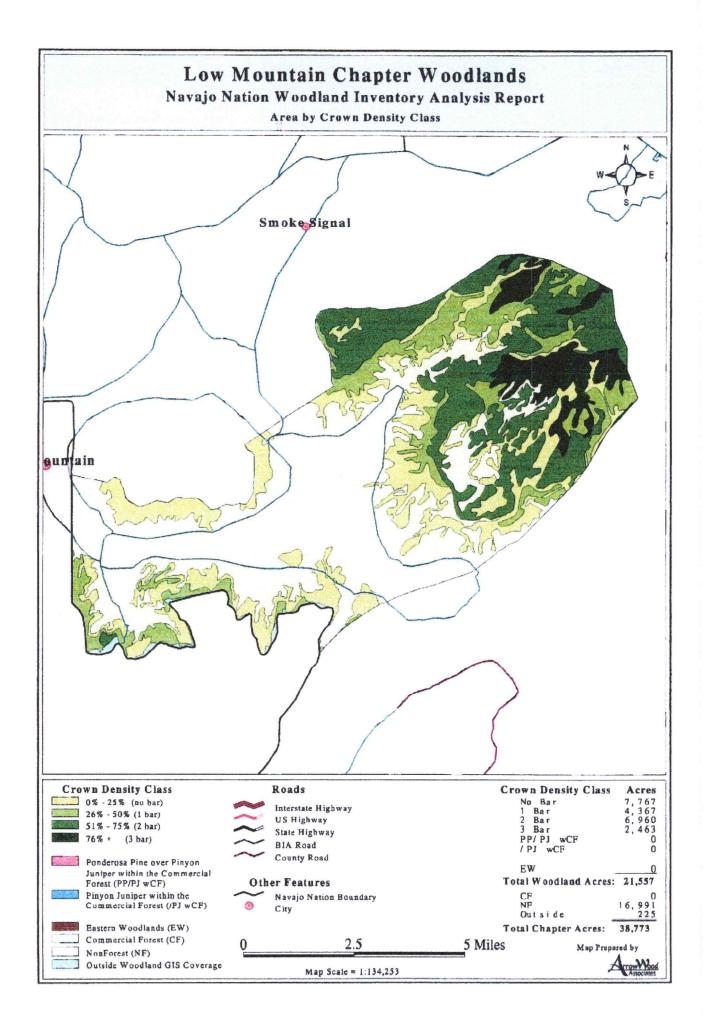
- Phone: 5054092683



Our principal, "Niandeiilnish" means "We Work for You"

Appendix E – NN Forestry Dept. - Woodland Inventory Analysis Report - Low Mountain & Jeddito Chapters





Wavajo Woodland Inventory Analysis (1986-1991 measurement) Per Acre Volume Summary Table by Diameter Class Chapter Databook Chapter - LOW MOUWTAIN 4 Plots 4 Plots	All Volume Dead 32.73 60.95 63.96 63.90 63.90	643.69
		06.59
		109.68
		470.06
	All Volume Live & Dead 15.26 21.22 19.50 53.31 259.45	368.76
	loodland Dead Yolume Volume	
	Non-Commercial Woodland Dead Wood Volume Dead Within Tree Live Trees Volume 8.25 8.25 8.75 62.27	82.24
		286.52
	All Volume Live & Dead 74.44 211.04 495.33 295.28	1,638.92
	oodland Dead Tree Volume 295.28	295.28
	Commercial Roodland - Dead Rood Volume Dead Within Tree Live Trees Volume 5.48 4.23 178.87 295.28	209.04
		1,134.59
	Diameter Class Seed/Saplings 3 - 5.9" 6 - 8.9" 9 - 11.9" 12 - 15.9" 20" and up Dead (all sizes)	Chapter Totals

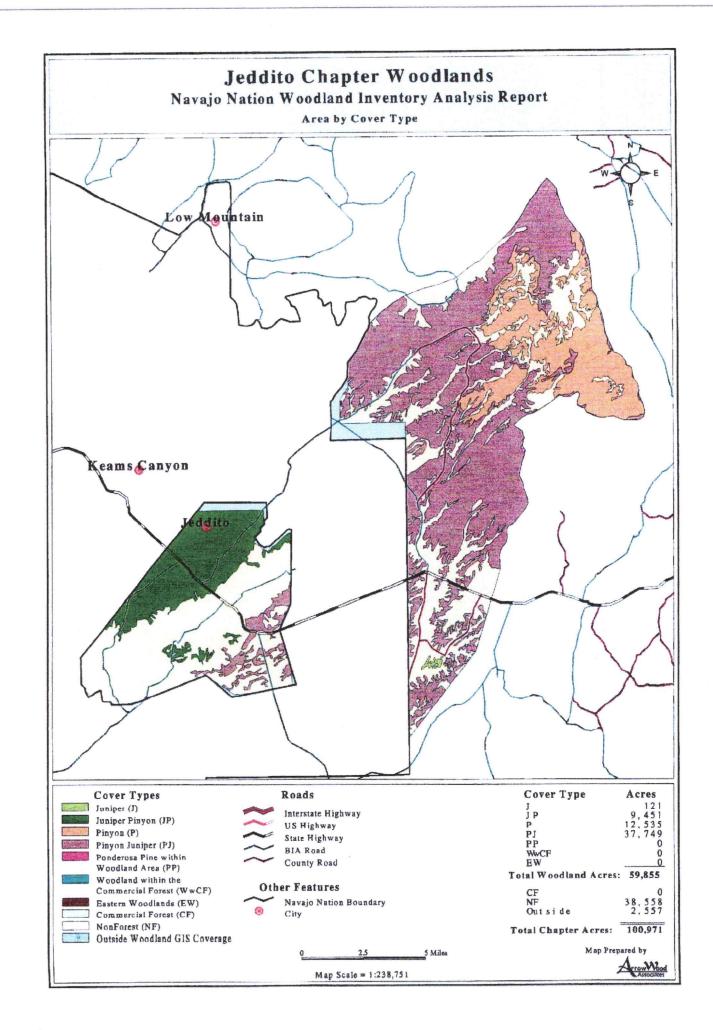
4 Plots --- Per Acre Volume Summary Table by diameter Class

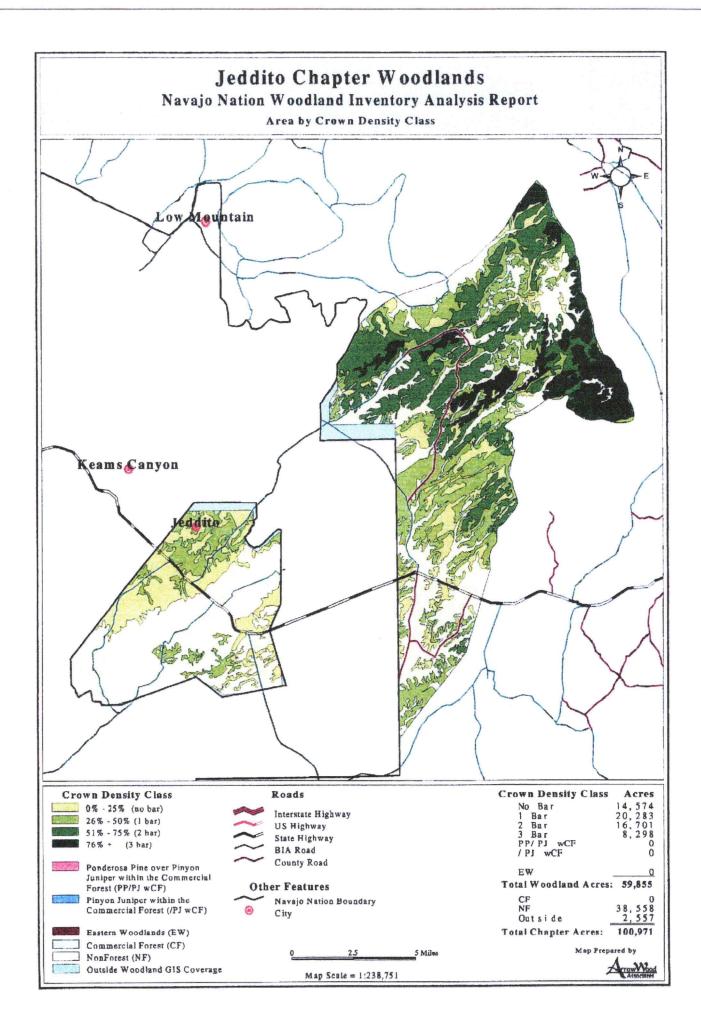
easurement by Species	Mavajo Woodland Inventory Analysis (1986-1991 measurement) Stand and Per Acre Product Volume Summary Table by Species LOW MOUNTAIN Chapter 4 Plots
Volume a Volume Merchantable Top e — Cubic Feet per Acre —	Area Volume Pt. Cubic F Àcre Cubic F
7 539.66 8 108.17	78.47 539.66 17.48 108.17
5 647,84	95.95 647.84

All volumes are net.

Stand and per Acre Product Volume Summary Table by Species -- LOW MOUNTAIN Chapter

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11/99 40:02 s LLC	All Volume Live & Dead	27.87 67.10 53.90 53.90 102.72 402.24
Date:10/11/99 Time:16:40:02 ArrowWood Associates LLC		L A
T T AKNOOD AS	Total Woodland Wood Dead folume Dead fithin Tree Trees Volume	
ÅLTO	Total P Dead Wood Volume Within Live Trees	0.01 1.91 4.48 2.39 7.40 26.28
	Green Volume (Live Trees)	27.86 65.18 68.74 51.50 92.67 69.99 69.99
	All Yolume Live & Dead	7.10 13.41 27.23 54.28 67.23 86.59 255.87
	Woodland Dead Tree Volume	
	Non-Commercial Woodland Dead Wood Yolune Dead Within Tree Live Trees Volume	0.00 0.74 0.74 2.28 11.49 9.47 24.99
	Green Volume (Live Trees)	7.09 12.43 26.49 52.00 55.74 77.11 230.88
ement)	All Volune Live & Dead	73.51 185.07 174.30 53.04 180.71 57.21 723.87
1991 measurer Class	oodland Dead Tree Volume	
Mavajo Woodland Inventory Analysis (1986-1991 measurement) Per Acre Volume Summary Table by Diameter Class Chapter Databook Chapter - JEDDITO 11 Plots	Commercial Woodland Dead Wood Dead Volume Dead Within Tree Live Trees Volume	0.03 3.97 2.65 6.89 6.89 2.86 29.13
	Green Volume (Live Trees)	73.48 181.10 161.57 50.39 173.82 54.35 54.74
Mavajo Woodland I Per Acre Volume S: Chapter Databook Chapter - JEDDITO 11 Plots	Diameter Class	Seed/Saplings 3 - 5.9" 6 - 8.9" 9 - 11.9" 12 - 15.9" 16 - 19.9" 20" and up Chapter Totals

JI Plots --- Per Acre Volume Summary Table by diameter Class

1

Mavajo Woodland Inventory Analysis Stand and Per Acre Product Volume S 11 Plots	Inventory tre Product	Analysis (198 t Volume Summ	1986-1991 measurement) mmary Table by Species	urenent) · Species	Mavajo Woodland Inventory Analysis (1986–1991 measurement) Stand and Per Acre Product Volume Summary Table by Species JEDDITO Chapter 11 Plots				Arrowi	Date Time Dod Assoc	Date:10/11/99 Tine:16:54:57 ArrorWood Associates LLC
Species	Trees Per Àcre	Quadratic Mean Diameter (inches]	Basal Area Sq. Ft. Per Acre	Total Volume Cubic	Total Volume Volume Merchantable Top Cubic Feet per Acre —	Board Foot Volume per Acre Scribner	Annual Met Growth Cubic Feet per Acre per Year	Cords per Acre	Line Posts Per Acre	Corner Posts per Acre	Christuas Trees per Acre
Juniper Pinyon	40.04 168.55	8.96 4.51	30.67 28.34	173.20 240.95	169.90 232.34		0.88 3.35	2.25	1.76	2.92	19.35
Chapter Totals	208.60	5.36	59.01	414.16	402.24		4.23	5.30	1.76	2.92	19.35

All volumes are net.

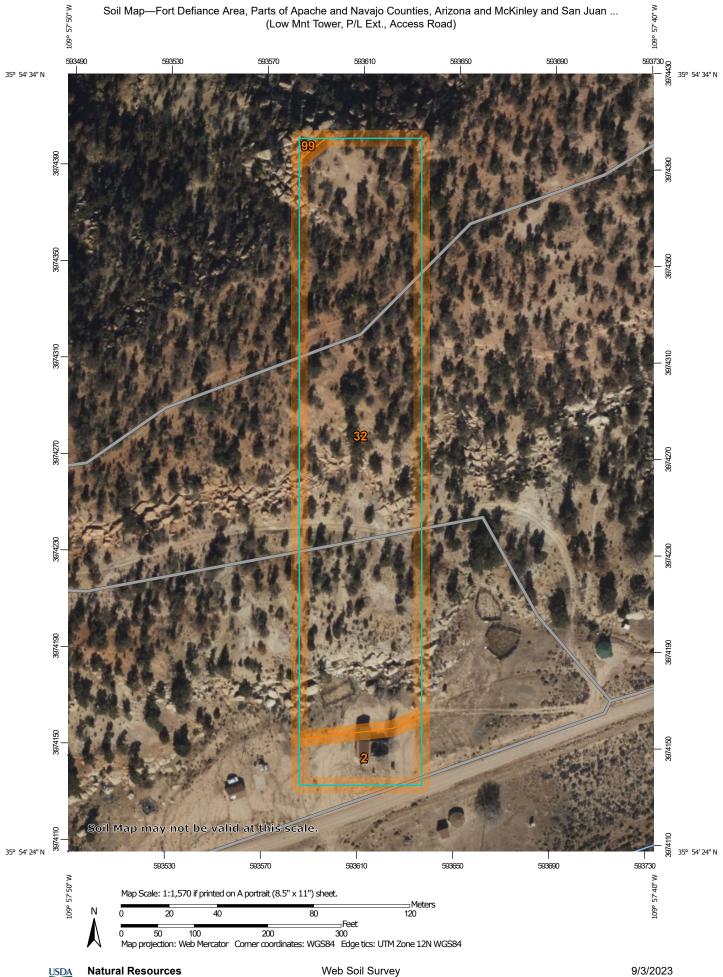
Stand and per Acre Product Volume Summary Table by Species -- JEDDITO Chapter

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Appendix F – Soil Map



Conservation Service

	MAP L	EGEND		MAP INFORMATION	
Area of I	nterest (AOI)	100	Spoil Area	The soil surveys that comprise your AOI were mapped at	
	Area of Interest (AOI)	٥	Stony Spot	1:24,000.	
Soils	Sail Man Unit Dalveana	0	Very Stony Spot	Warning: Soil Map may not be valid at this scale.	
~	Soil Map Unit Polygons Soil Map Unit Lines	\$	Wet Spot	Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil	
ĩ	Soil Map Unit Points	\triangle	Other	line placement. The maps do not show the small areas of	
_	I Point Features		Special Line Features	contrasting soils that could have been shown at a more detailed scale.	
(0)	Blowout	Water Fea	atures		
×	Borrow Pit	\sim	Streams and Canals	Please rely on the bar scale on each map sheet for map measurements.	
*	Clay Spot	Transport		Source of Map: Natural Resources Conservation Service	
1.1		+++	Rails	Web Soil Survey URL:	
\diamond	Closed Depression	~	Interstate Highways	Coordinate System: Web Mercator (EPSG:3857)	
X	Gravel Pit	\sim	US Routes	Maps from the Web Soil Survey are based on the Web Mercato	
0 0 0	Gravelly Spot	\sim	Major Roads	projection, which preserves direction and shape but distorts	
0	Landfill	~	Local Roads	distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more	
٨.	Lava Flow	Backgrou	nd	accurate calculations of distance or area are required.	
عليه	Marsh or swamp	No.	Aerial Photography	This product is generated from the USDA-NRCS certified data a of the version date(s) listed below.	
\propto	Mine or Quarry			Soil Survey Area: Fort Defiance Area, Parts of Apache and	
0	Miscellaneous Water			Navajo Counties, Arizona and McKinley and San Juan Counties	
õ	Perennial Water			New Mexico	
Š	Rock Outcrop			Survey Area Data: Version 23, Sep 1, 2022	
+	Saline Spot			Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.	
т ::	Sandy Spot			Date(s) aerial images were photographed: Oct 20, 2021—Dec	
	Severely Eroded Spot			11, 2021	
0	Sinkhole			The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background	
Š	Slide or Slip			imagery displayed on these maps. As a result, some minor	
ø	Sodic Spot			shifting of map unit boundaries may be evident.	



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Aquima-Hawaikuh complex, 1 to 5 percent slopes	0.3	8.4%
32	Evpark-Vessilla-Arabrab complex, 1 to 25 percent slopes	3.1	91.3%
99	Rizno-Tekapo family-Rock outcrop complex, 2 to 45 percent slopes	0.0	0.4%
Totals for Area of Interest		3.4	100.0%





Appendix G – Navajo Nation EPA Clean Water Act Consultation & Evaluation on Water Impacts



JONATHAN NEZ PRESIDENT MYRON LIZER VICE PRESIDENT

November 6, 2020

Elrena Mitchell Americas Communications

> RE: Clean Water Act Consultation for NTUA Tower Site, Low Mountain South, Navajo County, Arizona

Dear Ms. Mitchell:

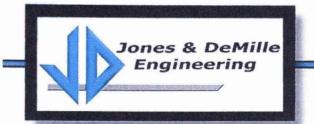
This is in response to the September 29, 2020 request from Americas Communications on the referenced consultation. NTUA proposes to construct, operate, and maintain a communications tower within the Low Mountain Chapter.

Based on document review, there are no waters of the U.S. near the proposed construction site meaning there is no required coverage under the CWA Section 404 Dredge & Fill permit (so no 401 WQ Certification required). The proposed total surface disturbance is below 1.0 acre so there is also no coverage required under the CWA Section 401 NPDES Construction General Permit.

If you have any questions, please contact me at (928) 871-7185 or at patrickantonio@navajo-nsn.gov.

Sincerely,

Patrick Antonio, Principal Hydrologist Navajo EPA – WQ/NPDES Program



infrastructure professionals

September 21, 2020

CORPORATE

1535 South 100 West Richfield, UT 84701 435.896.8266

50 South Main, Suite 4 Manti, UT 84642 435.835.4540

1675 South Highway 10 Price, UT 84501 435.637.8266

45 South 200 West (45-13) Roosevelt, UT 84066 435.722.8267

> 775 West 1200 North Suite 200A Springville, UT 84663 801.692.0219

435 East Tabernacle, Suite 302 St. George, UT 84770 435.986.3622

> 16 East 300 South PO Box 577 Monticello, UT 84535 1.800.748.5275

> > 38 West 100 North Vernal, UT 84078 435.781.1988

⁶ Dear Elrena,

I have evaluated the NTUA South Low Mountain Site (#1030) for potential impacts to waters. The site is located in a flat area atop a ridge, where natural channels do not occur. The proposed power line and access road cross similar terrain on the south facing slope of the ridge; no natural channels occur within or near this area.

There are no jurisdictional channels that would require Section 404 permitting with the Army Corps of Engineers. As no Section 404 permit is necessary, a Section 401 Certification will not be required either.

Please let me know if you have any questions. You can reach me at (435) 893-5203.

Sincerely,

35 75 Jenna

Jenna Jorgensen

JONES & DeMILLE ENGINEERING, INC.

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Appendix H – Low Mountain Resolution

RESOLUTION OF THE LOW MOUNTAIN CHAPTER

RELATED TO COMMUNITY CELLULAR TOWER INSTALLATION SITES, HEREBY SUPPORITING AND APPROVING THE PROPOSED CHAPTER CELL TOWER (2) SITE LOCATIONS AS SELECTED/MODELED BY NAVAJO TRIBAL UTILITY AUTHORITY (NTUA) PLANNING TEAM, SITE (1) LOW MOUNTAIN SOUITH #1030 AND SITE (2) JEEHDEEZ'A #210.

WHEREAS:

- The Low Mountain Chapter is duly certified Chapter of the Navajo Nation (NN) and as such may preserve or promote community interests; AND,
- The Office of the President and Vice President of the NN and the NN Telecommunication Regulatory Commission did announce on April 10, 2020 that the telecommunication service providers including AT&T/Cricket, Cellular One, Choice/NTUA Wireless, Frontier, Naked Mobile, Sacred Wind, T-Mobile, and Verizon Wireless, signed the "Keeping Americans Connected Pledge" to ensure more Navajo students, small businesses and residents have internet access during the COVID-19 pandemic; AND,
- 3. As the Dikos Ntsaaigii-19 outbreak has spread throughout the Navajo Nation and Chapter communities since mid-March or approximately 10 weeks ago, has caused great adverse disruptions of the daily lives of our people that includes educational, medical and what goods and services we had/have sustaining our state of existences and that's not to mention, the total number of 8,684 positive cases of COVID-19 and deaths reaching 431 so it is vitally important for our community people to become and stay connected and the need to construct and install a community Cellular Tower is something very urgent needing immediate attention, decisions or actions; AND,
- 4. The Low Mountain Chapter considers the "New Normal" maybe hard to generalize or to draw a generalize or to draw a general conclusion from the particular instances of the Dikos Ntsaaigii Nahast'eit's'aadah or COVID-19 (the Noval Coronavirus) as we all have come to know, impacting most areas of our lives within our communities, but a lesson is being learned throughout and as indigenous or native Dine people, with our strong belief prayers and hope, a new path can be gotten, we are the reed plant indicative of the ever expansion of the Navajo people; AND,
- 5. The need is there to pay tribute to the Navajo Tribal Utility Authority to step up to assist the Low Mountain Chapter community to perform the required Surveying, Archaeological, Biological, Environmental Assessment, and Rights of Way clearances needed for the two (2) sites once projects have been approved by NTUAW and NTUA; AND,

NOW, THEREFORE BE IT RESOLVED THAT: RELATED TO COMMUNITY CELLULAR TOWER INSTALLATION SITES, HEREBY SUPPORTING AND APPROVING THE PROPOSED CHATPER CELLULAR TOWER (2) SITE LOCATIONS AS SELECTED/MODELED BY NAVAJO TRIBAL UTILITY AUTHROITY (NTUA) PLANNING TEAM, SITE (1) LOW MOUNTAIN SOUTH #1030 AND SITE (2) JEEHDEEZ'A #210.

C-E-R-T-I-F-I-C-A-T-I-O-N

PAGE TWO: RESOLUTION - NTUA LOW MOUNTAIN CHAPTER

We, hereby certify that the foregoing resolution was duly considered at a duly called Low Mountain Chapter Meeting in Low Mountain, (Arizona), Navajo Nation, at which a quorum was present and that same was passed by a vote of $\underline{03}$ in favor, $\underline{--}$ opposed, and $\underline{01}$ abstained on this $\underline{30^{H}}$ day of $\underline{14u}$, 2020.

Motioned By: Herman Ben	
Seconded By: Reger George	
Ben Gonnie, Chapter President	Roger B. George, Chapter Vice-President
proche	eller
Rose Ann Charley, Char	ter Secretary/Trasurer

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Appendix I – Cultural Resources Compliance Form (CRCF)



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



Appendix J – Archaeological Report



"Appendix J – Archaeological Report" was redacted, per Section 304 of the National Historic Preservation Act and 36 CFR § 800.11(c).