Finding of No Significant Impact

Santa Fe Indian School Pueblo Education Network (NT22TBC0290054)

Lead Federal Agency

U.S. Department of Commerce:
National Telecommunications and Information Administration

Cooperating Agencies

U.S. Department of Interior:
- Bureau of Land Management – Rio Puerco and Socorro Field Offices
- Bureau of Indian Affairs – Zuni, Southern Pueblos, Ramah Navajo Agencies, and Southwest Region
- National Park Service – El Morro and El Malpais National Monuments
- U.S. Fish and Wildlife Service

U.S. Department of Transportation:
- Federal Highway Administration

U.S. Department of Defense:
- U.S. Army Corps of Engineers-Alburquerque District

U.S. Environmental Protection Agency

National Telecommunications and Information Administration 1401 Constitution Ave., NW Washington, DC 20230

FINDING OF NO SIGNIFICANT IMPACT

NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

TRIBAL BROADBAND CONNECTIVITY PROGRAM

SANTA FE INDIAN SCHOOL PUEBLO EDUCATION NETWORK

OVERVIEW

This document serves as the Finding of No Significant Impact (FONSI) for the following Proposed Action (also referred to as Project) awarded by the National Telecommunications and Information Administration (NTIA). NTIA and cooperating agencies including the Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA) Southwest Region, Zuni, Southern Pueblos and Ramah Navajo Agencies, US Fish and Wildlife Service (FWS), National Park Service (NPS), US Army Corps of Engineers (USACE), Federal Highway Administration (FHWA) and the Environmental Protection Agency (EPA) have completed the sufficiency review of the recipient's Environmental Assessment (EA) and have determined that the project will not have a significant impact on the environment. The FONSI contains information related to the review.

Recipient Name:	Santa Fe Indian School (SFIS)
Grant Project Name:	Santa Fe Indian School Pueblo Education Network (PEN)
Grant Award No.	NT22TBC0290054
Program Location:	Pueblos of Acoma, Zuni, Isleta and Navajo Nation Ramah Chapter

PROGRAM SUMMARY

The NTIA awarded a grant for the SFIS PEN, through the Tribal Broadband Connectivity Grant Program (TBCP), as authorized by the Consolidated Appropriations Act, 2021, Division N, Title IX, Section 905(c), Public Law 116-260, 134 Stat. 1182 (Dec. 27, 2020) (Act). TBCP provides new federal funding for grants to eligible entities to expand access to and adoption of: (i) broadband service on Tribal Land; or (ii) for programs that promote the use of broadband to access remote learning, telework, or telehealth resources during the COVID-19 pandemic. The SFIS PEN and proposed activities are scheduled to occur in New Mexico.

The Project will include the construction of a 324-mile-long broadband line with appropriate infrastructure (regeneration sites and hand-holes) that traverses federal, state, and Tribal lands. Communities include: the City of Albuquerque, Pueblo of Isleta, Village of Los Lunas, City of Belen, City of Socorro, Village of Magdalena, Pueblo of Acoma, City of Grants, and the Pueblo of Zuni.

The SFIS completed an EA for this Project in May 2024. NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI. The EA addresses measures to protect and preserve significant natural, environmental, and historical resources along and within primarily road rights of way (ROW). Mitigation and

conservation measures, along with inadvertent discovery plans will minimize impacts to both known and unknow natural and cultural resources.

The 324-mile SFIS PEN Project crosses multiple Tribal, federal, and state lands in New Mexico. As a result, the following governing entities were invited and agreed to become Cooperating Agencies in an effort to solicit agency input through the NEPA Interagency review process, conducted in the fall of 2023 through the spring of 2024. The environmental review and permitting actions received coverage under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) on February 16, 2023. The following agencies are listed as Cooperating Agencies and Participating Agencies.

- Cooperating Agencies:
    - BIA, Ramah Navajo, Southern Pueblos, Zuni Agencies and Southwest Region
    - BLM, Socorro and Rio Puerco Field Offices
    - FHWA
    - NPS, El Malpais and El Morro National Monuments
    - USACE, Albuquerque District Regulatory Branch
    - US EPA
    - USFWS, New Mexico Ecological Services

- Participating Agencies:
    - Bureau of Indian Education
    - Sevilleta National Wildlife Refuge
    - New Mexico Department of Transportation (NMDOT)
    - Pueblo of Acoma
    - Pueblo of Isleta
    - Pueblo of Zuni

Based on a review of the analysis in the EA, the NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA have determined that the Project, implemented in accordance with the preferred alternative, and incorporating best management practices (BMPs) and protective measures identified in the EA, will not result in any significant environmental impacts. Therefore, the preparation of an Environmental Impact Statement (EIS) is not required. The basis for this determination is described in this FONSI.

Additional information and copies of the Executive Summary of the EA and FONSI are available to all interested persons and the public through the NTIA website (https://broadbandusa.ntia.gov/funding-programs/documentation-and-reporting) and the following contact:

Amanda Pereira Environmental

Program Officer
Office of Internet Connectivity and Growth (OICG)
National Telecommunications and Information Administration
U.S. Department of Commerce Room 4874
1401 Constitution Avenue, NW
Washington, DC 20230

PROJECT PURPOSE AND NEED

The purpose of the project is to provide high-speed accessible and reliable Internet, necessary in rural and Tribal communities, which will meet the Federal Communication Commission's (FCC) benchmark 25/3 standards to ensure underserved students have equitable access to education and potential future employment opportunities. The SFIS PEN closes the broadband infrastructure gap and connects educational facilities in Tribal communities including the Pueblo of Isleta, Pueblo of Acoma, and the Pueblo of Zuni, while connecting participating anchor institutions in the City of Albuquerque, Village of Los Lunas, City of Belen, City of Socorro, Village of Magdalena, and City of Grants. The Santa Fe Indian School is a Tribally controlled education institution that serves approximately 700 Native American students per year from the 19 Pueblos, Navajo and two Apache Tribes of New Mexico.

Furthermore, the purpose of the project is to:

- Connect NM Tribal communities using a cost-effective regional approach.
- Increase Tribal participation in the global digital economy.
- Provide Tribal residents, businesses, and anchor institutions with reliable high-speed Internet.
- Create a private education network connecting Tribal schools (pre-K through 12th grade) and libraries to each other, and to national research and education networks.
- Connect NM rural community entities such as the Proposed Funded Service Area (PFSA) State Education Network (SEN), NM State Agencies, the federal government, tribes, and private businesses.
- Centralize cybersecurity and network operations by sharing cost and expertise.
- Increase enrollment in online classes.
- Increase education attainment, including increasing the pursuit of post-secondary degrees.
- Create student research opportunities.
- Develop historical and cultural activities through Tribal libraries.
- Provide workforce training to Tribal members.
- Increase Tribal job opportunities.

PROJECT DESCRIPTION

The SFIS PEN seeks to address its student's education disparities by 1) constructing a Middle Mile Fiber Optic Network, and 2) connecting educational facilities to a regional Internet exchange in Albuquerque, NM. This network constructs a 324-mile broadband line traversing through the following Tribal communities and local municipalities: the City of Albuquerque, Pueblo of Isleta, Village of Los Lunas, City of Belen, City of Socorro, Village of Magdalena, Pueblo of Acoma, City of Grants, and the Pueblo of Zuni.

The SFIS PEN proposes to build and install an approximate 324-mile broadband line containing a Single Mode SMF-28e cable encased with a 1 ¼-inch High Density Polyethylene conduit. Installation of the broadband line includes directional boring (ASTM F1962-22), vibratory plowing, and trenching at a minimum depth of 36 inches from the surface (depending on soil and site conditions). Additional depth may be necessary to avoid existing utilities, major waterways, or highways. Related infrastructure implementation of fiber optic boxes or vaults ("hand-holes") is to facilitate fiber placement and storage area needs for future potential cable damage and repair efforts. The SFIS PEN aims to extend Internet

connectivity to educational facilities situated along the Middle Mile Fiber Optic Network, to be accomplished by installing Network Management and Monitoring System components, including customer-edge route and switch components, as well as provider-edge route and switch components, in each of these facilities. Upon completion of the proposed project, 400 Gigabits per second is the estimated top-end network capacity. This is the result of over 40 optical channels installed at 10 Gigabits per second, via Dense Wavelength Division Multiplexing technologies and lambda-banding strategies. With future augmentation of equipment, the PEN has scalability potential of estimated speeds of 1.6, 4, or 16 terabits (TB) per second.

The Project will incorporate buffer zones to protect various natural, environmental, and historic resources. The width of the 324-mile line will be 20-feet from the centerline with a total width of 40-feet. Disturbances are anticipated to occur within 10-feet of the 40-foot total ROW width. Three (3) regeneration sites and one (1) cabinet are proposed within the project area footprint at the following locations: 1) New Mexico Tech Grad site location (fiber only), 2) location within Acoma Pueblo on the corner of Anzac Rd. and Airport Rd., 3) Zuni Pueblo along Hwy 53 across BIA-12, and 4) Acoma Pueblo near the 'Ranch House' coordinates with lat/long coordinates of 34.473564 -107.614533. Fiber optic regeneration sites are broadband shelters that provide efficiency, performance, and enhance data signals of the proposed project where two ends of the fiber optic line are spliced together. Regeneration sites will require a 50-foot by 50-foot ROW footprint. This area accommodates prefabricated buildings, concrete foundation, utility connections, and security fencing. Placement will follow Tribal and local municipal specifications where applicable. The selection of regeneration sites was selected on pre-disturbed NMDOT ROW and Tribal ROW areas with minimal vegetation and geological issues. Cabinet sites will require a 25-foot by 25-foot ROW footprint, supporting each cabinet's installation on concrete foundations, utility connections, and fencing. ROW acquisition for these sites will comply with applicable Tribal and municipal standards.

The project will require coordination with multiple jurisdictions to secure necessary rights-of-way across Tribal, state, and federal lands, including areas managed by the New Mexico Department of Transportation (NMDOT), Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA) Southern Pueblos Agency, Ramah Navajo Agency, Zuni Agency, and the National Park Service (NPS).

ANALYSIS OF ALTERNATIVES

The SFIS PEN EA includes an analysis of the alternatives for implementing the project to meet the purpose and need. NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA conducted a review of the recipient's analysis of alternatives for implementing the project to meet the purpose and need, including a review of the "no action" alternative, where applicable. Each alternative was evaluated for impacts against the "no action" alternative and impacts from other alternatives, as a component of selecting the preferred alternative. The following summarizes the alternatives analyzed in Section 5, Analysis of the Environmental Impacts, of the EA.

ALTERNATIVE 1 (PREFERRED ALTERNATIVE)

(ALTERNATIVE A IN THE EA)

The Proposed Action and preferred alternative is the construction of a 324-mile-long broadband line with appropriate infrastructure (regeneration sites and hand-holes) that traverses federal, state, and Tribal lands. Communities include: the City of Albuquerque, Pueblo of Isleta, Village of Los Lunas, City of Belen, City of Socorro, Village of Magdalena, Pueblo of coma, City of Grants, and the Pueblo of Zuni.

The Proposed Action pathway will encompass a 'buffer zone' for protection of various natural, environmental, and historical resources. This proposed project area is defined as: the total length of the PEN (324-miles) with a width of 20-feet from the centerline of the broadband fiber line (40-feet total width). Anticipated potential disturbance occurs within 10 feet of the 40-feet total width. The proposed project area utilizes NMDOT ROW within private ownership as well as public lands administered by the BLM, USFWS lands, NPS operated El Morro and El Malpais National Monuments, BIA Southern Pueblos Agency, BIA Ramah Navajo Agency, and BIA Zuni Agency. The NMDOT Standard Specifications for Highway and Bridge Construction (2019) will govern the construction of the proposed project. The broadband fiber optic installation for the proposed project occurs at a minimum depth of 36-inches from the surface via directional boring, vibratory plowing, and trenching (depending on soil and site conditions). Utilization of the directional boring method occurs in areas where water features are present and locations where the proposed path intersects a major roadway. All staging areas, construction activities, and related construction equipment storage will occur within the proposed project area.

Three (3) regeneration sites and one (1) cabinet are proposed within the project area footprint at the following locations: 1) New Mexico Tech Grad site location (fiber only), 2) location within Acoma Pueblo on the corner of Anzac Rd. and Airport Rd., 3) Zuni Pueblo along Hwy 53 across BIA-12, and 4) Acoma Pueblo near the 'Ranch House' coordinates are 34.473564 -107.614533. The purpose of fiber optic regeneration sites are broadband shelters that provide efficiency, performance, and enhance data signals of the proposed project where two ends of the fiber optic line are spliced together. The regeneration sites have an approximate footprint of 50 feet (length) by 50 feet (width) and sit on a concrete foundation, connected to local electricity and are enclosed with a chain link fence. Construction of a regeneration site requires site preparation including removal of vegetation, grading, tamping, trenching, and concrete slab installation adhering to NMDOT and FHWA specifications dependent on ROW jurisdiction. These sites allow for regeneration of fiber optic signals along the full length of the proposed project. The selection of regeneration sites was selected based on pre-disturbed NMDOT ROW and Tribal ROW areas with minimal vegetation and geological issues. Additionally, connection points called 'hand-holes' are placed every 1,750 feet (approximately), which allow access for maintenance of the fiber optic and storage for future potential cable damage and repair efforts. After review, there are minimal effects to overall environmental resources within the boundaries of the proposed project area. Soil and some geologic features will experience minimal effects due to directional boring (at a depth of 36 inches) for the broadband line. Related construction activities will not affect biological resources due to the implementation of conservation measures described in the EA. The implementation of an inadvertent discovery plan and cultural monitors are precautions implemented while performing the above-mentioned installation methods near known cultural resources and historic structures. It is understood that vibration and/or seismic activity may affect the core and veneer and adobe structures near historic and archaeological resources. As a mitigation measure, special precautions, such as beginning

the vibratory plow at the slowest speed possible to gauge the ground and soil conditions; then potentially increase speeds if conditions permit. Additionally, directional drilling beneath water features and roadways may not affect surrounding biological resources (species and habitats). Refer to Section 5 of the EA, for full environmental analysis.

The following are detailed pathways of the Proposed Project Area:

The proposed project pathway originates at the Big Byte Data Center in Albuquerque, NM. From Big Byte, there is a short lateral connection to the UNM Albuquerque GigaPoP (ABQG) at H5 Data Center. The fiber path then utilizes an existing pathway following Central Ave. eastward towards Interstate 25 (I-25) within the NMDOT ROW. The fiber path travels approximately 9.0 miles south on I-25, exits at Highway (Hwy) 47, and continues south entering Isleta Pueblo.

The fiber path travels along established and previously disturbed roads (including I-25, Highways (47, 147, 314), BIA Tribal roads (33, 40, 55, 60, 54, 71, 70, Moonlight Dr. SW, 102 and 100), and other residential streets through Isleta Pueblo. The fiber route has been adjusted in Isleta since the time of the initial public review; however, the proposed project continues to follow previously disturbed roads. While in Isleta Pueblo, the fiber path includes boring underneath the Rio Grande River. The fiber path exits Isleta Pueblo and continues south on I-25 for approximately 59 miles traversing through Bureau of Land Management (BLM) lands, Valencia County, Socorro County, private lands, and enters the City of Socorro. While in Socorro, the path travels south along California St., Abeyta Ave., Bernard, Fisher Ave., Garfield Ave., Reservoir Rd., Molina Hill Rd., Spring St., then Aspen. The path travels around the Firefighter Training Academy, to Canyon Rd., then onto Bravo Rd. through unnamed roads within Water Canyon and exits to Hwy. 60.

The fiber path continues west along Hwy. 60 for approximately 25 miles through the Village of Magdalena. In this area, the path travels through Socorro County, BLM lands, State Land Office (SLO) lands, and various private lands. The fiber path continues west until Montosa Ranch Rd. between milepost (MP) 99 and MP 100, where the path now travels north. The path continues to Montosa Ranch Rd. until it intersects Double H Ranch Rd. In this area, the path crosses through Socorro County, SLO, BLM lands, and private lands until it reaches the southern boundary of the Pueblo of Acoma.

Through the Pueblo of Acoma, the path travels along established, disturbed roads including Montosa Ranch Rd., Double H Ranch Rd., Martin Rd., Red Lake Rd., Indian Service Route 21, Indian Service Route 37, Indian Service Route 38 or Haak'u Rd., Pinsbaari Drive (with laterals at Knots Landing and Sky City Drive), Pueblo Rd., US Route 66, and Anzac Rd. The path continues west on I-40 towards Grants, NM. While in Grants, NM the path travels along existing roads, sidewalks, and utility corridors including US Route 66, West Santa Fe Ave., South 5th Street, San Jose Drive, and Hwy. 53. From Hwy. 53, the path travels south on Ice Caves Rd. through Cibola County, BLM, SLO, EL Morro and El Malpais National Monuments, Ramah Navajo Indian Reservation, Zuni Pueblo, and various private lands. The proposed 324-mile PEN fiber path ends in the Pueblo of Zuni, where it will connect Zuni Elementary School, High School, Head Start Building, and the Governor's Office.

With the PEN route concluding in Zuni Pueblo, the only practicable alternative is to follow the existing Highway 53 ROW into Zuni Pueblo, which requires crossing through designated National Park Service managed El Morro and El Malpais National Monuments. Rerouting along I-40 west and then south down Highway 602 would add significant costs due to increased mileage to the project. Moreover, collocation on existing aerial fiber lines through both Monuments was assessed, but the additional weight of the fiber line would increase the load on existing power poles and require upgraded pole installation, therefore, collocation would not be feasible. Based on these reasons, utilization of

underground utility ROW through El Morro and El Malpais is the only practicable alternative for providing high speed fiber to Zuni Pueblo education facilities.

Refer to Final EA Figure 1 for the overall map of the proposed project area. Appendix A-1 and B include the overall proposed project area (Alternative A) and the Public Land Survey System (PLSS) information collected for the proposed project area.

ALTERNATIVE 2

(ALTERNATIVE B IN THE EA)

Alternative B describes the practical alternative routes considered for the PEN. The alternative route traverses through federal, state, and Tribal lands, specifically: Zuni Pueblo, City of Grants, Acoma Pueblo, Laguna Pueblo, City of Albuquerque, Pueblo of Isleta, Los Lunas, Belen, and Socorro. Alternative B requires the proposed long-haul fiber optic cable and related hand holds to be installed within Highway 53 to reach Zuni Pueblo, a major participating Indian Tribe supporting the project. Alternative B would be installed within the NMDOT ROW easement that bisects NPS boundaries in El Morro and El Malpais national monuments, similar to the Proposed Action. Appendix A-2 displays the alternative PEN path (Alternative B), with respect to the proposed PEN (Alternative A).

Reasons why Alternative B was NOT the selected alternative:

- Installation of fiber optic line may exceed federal grant funding timelines.
- Currently, Laguna Pueblo was not amenable to the project crossing their lands.
- Various Tribal communities along the alternative PEN path already possessed Internet services for their respective educational facilities.
- Additional environmental analysis is required for alternative route and impacts to fiber installation within NMDOT pre disturbed areas that may affect soil resources, wetlands, points of diversion, mineral resources, and biological resources.

Similar to the Proposed Action, Alternative B would require ROW access across federal, state, and Tribal lands. For long-haul fiber, a ROW of approximately 10 feet (5 feet from the centerline) is required, with additional ROW footprints of 50’x50’ for regeneration sites and 25’x25’ for cabinet sites and hand holds at approximately 1,750’, where applicable. All siting and collocation infrastructure would need to comply with Tribal and local jurisdictional requirements.

Installation of the broadband fiber line for this alternative incorporates the same methods described in Alternative A. Additionally, aerial collocation on existing power lines and power poles remains a possibility. However, the additional weight of the actual fiber line would increase the load on existing power poles, therefore, collocation would not be feasible and require upgraded pole installation. Ideally, the application of this collocation concept would occur in areas where procurement of a ROW was not feasible.

Potential effects on these environmental resources and considerable cooperation among many federal agencies, state agencies, local municipalities, and Tribal communities is not feasible at this point due to time constraints and funding timeline of the project. As a result, Alternative A better represents the overall goal and ideal timeline of the PEN installation.

NO ACTION ALTERNATIVE

The No action alternative was also considered. This alternative represents conditions as they currently exist. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives considered.

The No Action Alternative (Alternative C, in the EA) describes the neutrality of the proposed project. No construction activities will occur through this alternative. Impacts such as potential loss of employment, education, and telehealth services would negatively affect these communities. These negative impacts are inconsistent with the Tribal Broadband Connectivity Program and other investments in the Inflation Reduction Act to bridge the digital divide and uphold the federal government's trust responsibility with Indian Tribes.

The No Action Alternative is not recommended as the preferred alternative since minimal environmental impacts from Alternative A greatly outweigh the benefits put forth by Alternative C. The no action alternative does not provide for the Tribal benefits outlined in the Purpose and Need.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

The Santa Fe Indian School did not present any additional alternatives for consideration, other than those previously discussed.

FINDINGS AND CONCLUSIONS

The recipient's EA analyzed existing conditions and environmental consequences of the preferred alternative, other alternatives, and the no action alternative for potential impacts in the major resource areas of Noise, Air Quality, Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use, Infrastructure, Socioeconomic Resources, and Human Health and Safety. The results of the analysis are summarized in the table below:

Resource Area	Preferred Alternative	Alternative 2	No Action Alternative
Noise	No Significant Impact	No Significant Impact	No Impact
Air Quality	No Significant Impact	No Significant Impact	No Impact
Geology and Soils	No Significant Impact	No Significant Impact	No Impact
Water Resources	No Significant Impact	No Significant Impact	No Impact
Biological Resources	Less Than Significant with BMPs and protective measures incorporated	Potential for less than Significant Impact	No Impact

Resource Area	Preferred Alternative	Alternative 2	No Action Alternative
Historic and Cultural Resources	Less Than Significant with BMPs and protective measures incorporated	Potential for less than Significant Impact	No Impact
Aesthetic and Visual Resources	No Significant Impact	No Significant Impact	No Impact
Land Use	No Significant Impact	Potential for less Than Significant Impact	No Impact
Infrastructure	No Significant Impact	No Significant Impact	No Impact
Socioeconomic Resources	Beneficial Impact	Beneficial Impact	Negative Impact
Human Health and Safety	Beneficial Impact	Beneficial Impact	Negative Impact

The sections that follow provide a brief narrative for those resource areas indicated in the table above and provide a summary of the results of required consultation with the appropriate agency or agencies.

NOISE

During installation of the proposed project, there will be an average level of construction sound from various heavy equipment utilized for directional boring, vibratory plowing, and trenching activities. Construction will only occur during regular hours of the day at a maximum of 1 to 2 days in a specific area, depending on site conditions. Residents within the following Tribal communities and local municipalities will be temporarily affected: the City of Albuquerque, Pueblo of Isleta, Village of Los Lunas, City of Belen, City of Socorro, Village of Magdalena, Pueblo of Acoma, City of Grants, and the Pueblo of Zuni.

Ongoing coordination efforts throughout the construction of the project between SFIS, Tribal communities, and local municipalities will ensure community members are aware of the project and its potential noise disruptions. For biological resources with noise sensitivities, the following conservation measures will be implemented to avoid direct or indirect impacts to surrounding species and habitats.

- Construction activities and related noise will occur outside of breeding season to minimize effects on the noise sensitive the Yellow-billed Cuckoo and Southwestern Willow Flycatcher.
- Construction activities (and related noise) in known owl locations will only occur during daylight hours to the Mexican Spotted Owl.

No significant or long-term impacts associated with noise are anticipated.

AIR QUALITY

During the construction and installation phase of the proposed project, minimal air quality impacts are anticipated. Exhaust from heavy equipment and various construction vehicles are anticipated. To preserve acceptable normal air quality within the specific construction area along the proposed path on any given day, the following BMPs would be implemented:

- All active construction areas including on-site haul roads and contractor use areas would be effectively stabilized by applying water, chemical suppressants, and/or other reasonable measures to reduce dust emissions.
- The contractor would not be permitted to dispose of construction materials by burning.
- The contractor would not operate equipment and vehicles that display excessive exhaust emissions while operating, until corrective repairs/adjustments are made to reduce such emissions to acceptable levels. Unnecessary idling of diesel-powered construction equipment would be minimized.

Continued coordination amongst the local municipalities and Tribal communities will occur to ensure residents are aware of the project and potential air quality issues. There may be short term minor impacts to air quality during construction, however no significant and no long-term impacts are anticipated.

GEOLOGY AND SOILS

The proposed project traverses several New Mexico counties across the American southwest. Mountainous features with predominant lowlands form basins, fault-bounded troughs, and trenches that encompass a variety of elevation ranges. The geology across the region is dynamic with 137 soil types present. Given that the proposed project occurs within pre-disturbed areas, it is not anticipated that there will be significant long-term impacts to geology and soils.

According to the Web Soil Survey (WSS) results, approximately 1,479.3 acres of soil (81 acres classified as Prime or other important Farmland) will potentially be affected. This is potential farmland identified by soil type, not usage, and there is no land use conversion anticipated from the current use. To ensure the smallest footprint is affected and environmental resources are preserved, the following BMPs are recommended during the construction phase:

- Ranchers would be notified of pending construction activities to avoid any impacts or harassment to cattle grazing operations.
- Potential land disturbances would be limited to areas identified for construction.
- Identify and avoid areas with visibly unstable slopes and local areas with potentially unstable slopes.
- Consider environmental factors (i.e., groundwater conditions, precipitation, slope angles, and geologic structure) that can cause overall slope instability.
- Minimize the amount of land disturbance. If site conditions allow for directional drilling, perform this method and minimize vegetation removal when possible.
- When directional drilling occurs, properly dispose of any excess soil at an approved disposal site.
- To protect farmland areas, implementation of silt fences and/or straw waddles would be implemented in the possible event of leakage from construction equipment.
- All areas disturbed by construction shall be replanted and stabilized with approved vegetation through seeding, hydro mulching, and other effective means immediately upon completion of construction activity.
- Use construction BMPs properly to minimize soil erosion. BMPs depend on site-specific conditions. Appropriate BMPs for soil erosion and sediment control will be determined based on the needs of each site location. However, the following BMPs will be utilized, as appropriate:
    - All surface disturbing equipment should be inspected and cleaned prior to coming onto public lands.

- Construction sites should be monitored for the life of the project for the presence of invasive/noxious weeds. If found, the nearest BLM Field Office will be notified and determine the best method for the control of the particular weed species.
- All seed shall be certified noxious weed free.
- Areas will be monitored to determine the success of revegetation, the presence of invasive/noxious weeds, and will be reseeded if necessary.

WATER RESOURCES

Natural waterways within the boundaries of the proposed project will not be altered in any manner during construction. Prior to construction, the federal cooperating agency, USACE, will be notified and related permitting will be obtained. Upon approval, the construction will proceed with the utilization of BMPs and other methods, if necessary or requested by USACE or Tribal communities. The goals of the BMPs are to protect water resources from spillage and potential contamination from construction equipment or other means. Based on the evaluation of water resources within the proposed project area, some immediate BMPs can be identified to reduce impacts on water resources:

- Flagging of wetland boundaries.
- All water features will be directionally bored under to avoid impacts.
- Construction materials would not be stockpiled in areas where they can be washed away by stormwater volumes and discharges.
- Construction material should be used to backfill trenches or disposed of in a manner that will not impact waterways.
- Any spills occurring from heavy equipment or other vehicles within the identified construction zone will be cleaned up immediately and disposed of at an approved facility.
- The proposed construction occurring in floodplain areas will be strategically designed to minimize adverse effects on all water sources (above and below ground).
- Continued monitoring and photo documentation will be collected before, during, and after construction has occurred.
- All areas disturbed by construction shall be replanted and stabilized with approved vegetation through seeding, mulching, and other effective means immediately upon completion of construction activity.

A Congressionally authorized levee in the Pueblo of Isleta for the Rio Grande fiber crossing and fiber crossing a water conveyance structure in Escondida, NM will both require a Section 408 permit from the USACE. Another Congressionally authorized structure near Socorro will be crossed, but will not require 408 permitting due to the fiber being attached to an existing bridge. Section 408 permitting is currently being undertaken by SFIS with the USACE.

Additionally, the proposed project does not include altering, diverting, or withdrawing water from surface or ground water sources. There would be no potential effects to water quality in the immediate vicinity, nor contributions to degradation of downstream waterbodies. In areas along the proposed project area where water is present, proper construction techniques are utilized so natural drainage patterns remain unaffected. Trenching or plowing in water features (wetlands, ponds, rivers) is not an option; therefore, directional drilling with additional depth is the primary construction method to be deployed in these areas. Utilization of BMPs seeks to reduce any potential effects to adjacent channels. No significant impacts to water resources are anticipated from construction activities.

BIOLOGICAL RESOURCES

According to the IPaC report gathered for the proposed project, threatened, and endangered species exist within the proposed project area. The effect determinations of each of these species are found in Table 10 of the EA and it is determined that the proposed action is "Not likely to adversely affect" all species listed in the report with a letter of concurrence received from the US Fish and Wildlife Service (USFWS) New Mexico Ecological Field Offices on May 20, 2024. Additionally, the proposed project does not interfere within known critical habitat locations. Since the original IPaC pull, the Monarch Butterfly was proposed to be listed as threatened and the Suckley's Cuckoo Bumble Bee was proposed to be listed as endangered under ESA. It is unknown when either of these proposed species would be formally listed under the ESA. In the event that either of these species are formally listed during project construction, the NTIA Environmental Program Officer made ESA effect determinations for both species. The NTIA Environmental Program Officer made a no effect determination for the Monarch Butterfly since little to no milkweed populations would exist in the more arid New Mexico road ROW. A no effect determination was also made for the Suckley's Cuckoo Bumble Bee since no known population of this bumble bee has been observed in New Mexico for multiple years. Otherwise, No existing species were uplisted or downlisted since the 2024 IPaC list and all ESA effect determinations remain valid.

The proposed action also abides by rules and regulations set forth by the USFWS, including the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. If a bald or golden eagle is encountered, any effort to move or approach it will be discouraged and appropriate regulatory authorities would be engaged with.

No significant impacts are anticipated to biological resources because of the proposed action. Immediate conservation measures during the construction phase of the proposed project include:

Species	Approximate Habitat Location(s) near the Proposed Action Area	Conservation Measure
New Mexico Meadow Jumping Mouse	• Wherever found within riparian communities along the Rio Grande.	Work within suitable habitat occurs outside of the active/breeding season. The active season of this species occurs in mid-May to late October in the lower elevations along the Rio Grande. Work within or adjacent to this species' habitat will occur outside of its active season.
Mexican Spotted Owl	• Outside of PEN footprint along Ice Caves Rd. Location approx. 1.29 miles north of PEN.	Identification of suitable forested (or canyon) nest/roost habitat for the owl will occur prior to project implementation. If nest/roost habitat identified, work within suitable nest/roost habitat will not occur during the owl's breeding season (Mar. 1 – Aug. 31), as construction noise and human presence disrupts breeding behavior. Efforts to avoid tree and/or vegetation removal within any type of potential owl habitat will occur.
Southwestern Willow Flycatcher	• Rio Grande corridor from Los Lunas to Socorro	Work within 0.25 mi. of suitable riparian habitat occurs outside of the breeding season (May 1 – Sep. 1) as construction noise disrupts breeding behavior.
Yellow-billed Cuckoo	• Rio Grande corridor from Los Lunas to Socorro	Work within 0.25 mi. of suitable riparian habitat occurs outside of the breeding season (May 1 – Sep. 1) as construction noise disrupts breeding behavior.
Rio Grande Silvery Minnow	• Outside of PEN footprint along Broadway Blvd. near Isleta Pueblo.	The construction occurring near the Rio Grande involves a directional bore approximately 8 ft. below the bed of the river, which alleviates any surface water disruptions that could harm this species habitat, breeding season, or feeding. To avoid potential impacts to the Rio Grande silvery

	Location approx. 1 mile west of PEN. • Rio Grande corridor from Los Lunas to Socorro	minnow's spawning activities and to sensitive life stages, boring activities underneath the Rio Grande will occur outside of April 15 to September 1. The use of sediment control devices (such as silt fencing) during construction will prevent eroded soil from transporting off the construction site to surrounding rivers or streams (NMDOT Specifications for Highway and Bridge Construction – 2019; Section 604.3.6).
Zuni Bluehead Sucker	• Outside of PEN footprint along Ice Caves Rd. near Ramah. Location approx. 0.84 miles NE of PEN.	The construction occurring within the range of the Zuni bluehead sucker involves crossing of multiple water bodies and directional boring approximately 8 ft. below the bed of these water bodies, which alleviates most surface water disruptions that could harm this species' habitat, breeding season, or feeding. To avoid the smothering of Zuni bluehead eggs, sediment-generating activities will not occur within 0.25 miles of the Rio Pescado and Zuni River during the species' spawning season (late April to early June) or appropriate measures (i.e., silt fences, etc.) will be taken to eliminate any potential siltation of these rivers due to project activities.
Pecos Sunflower	• Outside of PEN footprint along McBride Rd. in Grants. Location approx. 0.34 miles SW of PEN.	Pre-construction habitat assessment surveys to identify potential habitats will occur. If potential habitat identified, directional boring would occur at a depth where no roots are present (a minimum of 5 feet) to avoid the disturbance of potential Pecos sunflower habitat.
Zuni Fleabane	• Wherever found in mountainous areas of Western NM, particularly in Grants, Ramah, and Zuni areas.	Pre-construction habitat assessment surveys to identify potential habitats will occur. If potential habitat identified, directional boring would occur at a depth where no roots are present (a minimum of 5 feet) to avoid the disturbance of potential Zuni fleabane habitat.
Mexican Wolf (Experimental Population)	• Wherever found in areas south of NM Interstate 40	Work occurring within identified suitable habitats (south of I-40) within the proposed action area will occur outside of breeding season (February to March). Road avoidance behavior is a characteristic of this species. If species encountered, construction would halt until species is out of range of proposed action area.
Mexican Wolf	• Wherever found in areas north of NM Interstate 40	Work occurring within identified suitable habitats (north of I-40) within the proposed action area will occur outside of breeding season (February to March). Road avoidance behavior is a characteristic of this species. If species encountered, construction would halt until species is out of range of proposed action area.
Mexican Wolf	• Within Sevilleta National Wildlife Refuge and El Malpais	Work occurring within identified suitable habitats (within Sevilleta NWR and El Malpais) within the proposed action area will occur outside of breeding season (February to March). Road avoidance behavior is a characteristic of this species. If species encountered, construction would halt until species is out of range of proposed action area.

HISTORICAL AND CULTURAL RESOURCES

NTIA will fulfill its obligation to take into account the effects of the undertaking on historic properties through the implementation of a Programmatic Agreement (PA). This PA has been developed by NTIA, in consultation with the New Mexico State Historic Preservation Office, Pueblo of Zuni, Pueblo of Acoma, Navajo Nation, Advisory Council on Historic Preservation and other stakeholders, to allow for a phased process to identify, evaluate, assess, and avoid, and/or mitigate project effects on historic properties. The primary purpose of the PA is to phase Section 106 review of the project due to the proposed fiber route traversing multiple federal and state land jurisdictions. The PA stipulates a process whereby the fiber route is divided into seven phases, by land jurisdiction, and the following must be completed prior to construction:

- Each identified phase of construction shall be reviewed under a process that complies with 36 CFR 800.4 to 800.6.
- No construction of a project phase will commence until review is concluded under the terms of the PA, including the mitigation of any adverse effects to historic properties.
- Work activities associated with the project will be subject to cultural and ceremonial event schedules that will be prescribed in the work planning and installation contractor phases of the project.

Prior to the initiation for the Section 106 process and development of the PA, public outreach and general project updates have been communicated by SFIS to numerous stakeholders within the region. On February 7, 2025, letters were sent to stakeholders initiating consultation under Section 106 of the National Historic Preservation Act.

On February 10, 2025, a draft PA was sent to all consulting parties for their review and input. Comments from consulting parties were received and integrated into a revised draft PA. All consulting parties were invited to a PA meeting wherein comments and revisions to the PA were discussed. A second revision and comment period with a finalized draft PA was initiated on March 21, 2025.

The Area of Potential Effect (APE) for the SFIS fiber optic cable route includes all locations of project related ground disturbing activities and is defined as the width of the construction ROW plus any additional areas for staging or access.

As stipulated in the PA, SFIS shall conduct a Records Check of the APE to identify areas that have been previously surveyed and any previously identified historic properties within a quarter mile buffer of the APE. Special consideration is given to consult with Tribal leaders and the Tribal Historic Preservation Office (THPO) for identification efforts on T*ribal lands* as defined in 36 CFR 800.16(x) as well as the identification of Traditional Cultural Places (TCPs) and Properties of Religious and Cultural Importance throughout the entirety of the APE.

Based on the results of the Records Check, and in consultation with identified consulting parties, SFIS shall undertake additional identification measures that may include pedestrian and/or field survey. Should historic properties be identified within the APE, the Signatories to the PA have agreed on a process to apply avoidance measures to avoid adverse effects. If avoidance measures are not adequate, the PA stipulates the development of a treatment plan with proposed minimization and mitigation measures.

SFIS conducted early outreach and formal consultation with the Pueblos and their respective leadership and designed the project route in a way that best avoids culturally sensitive areas. SFIS proposes to construct fiber primarily via directional drilling, a construction method that results in minimal ground disturbance and, as such, has a low potential to affect historic properties. However, should NRHP properties be present in the APE, the PA identifies a process whereby historic properties, Traditional Cultural Places, and Properties of Religious and Cultural Importance are identified and avoided through measures that may include diverting fiber away from a cultural resource, employing aerial fiber on existing poles to avoid ground disturbance, or directionally drilling to depth that avoids archaeological deposits. .

SFIS's proposed fiber route includes T*ribal lands* of the Pueblo of Acoma, Pueblo of Isleta, Navajo Nation, and Pueblo of Zuni. NTIA and SFIS engaged the THPOs and other formally consulted Tribal leaders to determine how best to identify Tribal cultural resources. Cultural resources (sites, objects, landscape, or structures) are not typically documented among Tribal communities. In the event a cultural resource is identified during the implementation of the PA, NTIA will consult with the appropriate Tribal authority on avoidance or mitigation measures.

As stipulated in the PA, and as a condition to the NTIA grant award, SFIS will be subject to an inadvertent discovery plan during all construction. In the event cultural resources are discovered during construction, the plan directs the construction project manager to immediately identify appropriate law enforcement authorities, NTIA, ACHP, appropriate SHPO/THPO, and federal land managing agency, if applicable, within 48 hours of the discovery.

Cultural preservation through formal Tribal consultation and engagement and continued communication has been integrated throughout the proposed PEN project from planning through construction. Formal joint federal agency consultation meetings have occurred with the Pueblos of Acoma, Zuni and Isleta Tribal Councils and Governors in June and November 2023 as well as May 2024. Conversations will continue with Pueblo leadership throughout this project. In consideration of the previous conditions and Tribal monitoring, it is anticipated that there will not be significant impacts to cultural resources.

AESTHETIC VISUAL RESOURCES

Within the path of the proposed project, there are two national monuments: El Malpais National Monument and El Morro National Monument; in addition, there are two national scenic/historic trails: the Continental Divide National Scenic Trail and the El Camino Real de Tierra Adentro National Historic Trail. The construction methodology (directional drilling) and installation of the proposed project will not cause significant impacts to the operations of these resources. This proposed project area length is 324-miles with a width of 20-feet from the centerline of the broadband fiber line (40-feet total width). Anticipated potential disturbance occurs within 10-feet of the 40-feet total width.

The proposed project introduces immediate, short-term impacts to the environment, depending on construction vibratory plow or directional boring methodologies. This is mitigated through revegetation processes according to NMDOT standards and regulations. Class C (Hydroseeding) will be the process during revegetation. The proposed project area crosses the following NMDOT Revegetation Zones: 1 (NM Plateaus and Mesas) and 5 (Southern Desertic Basins, Plains, and Mountains). These zones dictate the seed mixes utilized for revegetation. This process will occur after the installation of the PEN.

Additionally, all construction activities are confined to the defined boundaries (40-feet total width and 324-mile length). Given these factors and mitigation measures, there will be no long-term impacts to Aesthetic Visual Resources as a result of the proposed action.

LAND USE

During the installation of the proposed project, minimal effects to land use is anticipated.

For areas within Federal Cooperating and Participating Agency (BLM, BIA Zuni, Southern Pueblos and Navajo Ramah Agencies, NPS, USACE, FHWA, and NMDOT) lands, authorizations and ROWs would be secured prior to commencement of construction. At the time of federal NEPA review, it is unknown the actual duration of the ROW lease per jurisdiction, but would be anywhere from 10-30 years. Negotiations will occur with respective land management agencies on the ROW lease duration during permitting.
Estimated mileage for the proposed project's ROW land needs are provided below:

- BLM (Total Miles = approx. 11.52)
    - Socorro Field Office ~ 5.69 mi.
    - Rio Puerco Field Office ~ 5.83 mi.
- National Park Service (Total Miles = approx. 8.28)
    - El Malpais ~ 6.27 mi.
    - El Morro ~ 2.01 mi.

- BIA (Total Miles = approx. 106.89)
    - Ramah Navajo Agency ~ 4.03 mi.
    - Zuni Agency ~ 23.13 mi.
    - Southern Pueblos Agency ~ 79.73 mi.
        - Acoma Lands: 68.66 mi.
        - Isleta Lands: 11.07 mi.
- All State Lands (Total Miles = 19.60)
    - State Game and Fish ~ 0.42 mi.
    - State Lands ~ 12.55 mi.
    - Sevilleta Wildlife Refuge/I-25 Corridor ~ 6.63 mi
- Private Lands (Total Miles = 161.30)

All coordination among federal, state, local entities, and Tribal communities will continue throughout the duration of the proposed project. It is not anticipated that there will be significant or long-term impacts to land use as a result of the proposed action.

INFRASTRUCTURE

The proposed project, which includes a broadband fiber network cable and associated infrastructure improvements, will provide high-speed Internet services to primarily underserved Tribal and rural communities. The associated infrastructure includes fiber optic regeneration sites, a cabinet site, and hand-holes. There will be three (3) fiber optic regeneration sites, and one (1) cabinet site locations located along the length of the proposed project, at a maximum distance of approximately 120 km. (~74.5 miles). Two regeneration and one cabinet locations require a new building for housing all the cables and electrical network components. The Pueblo of Acoma will have one regeneration site and one cabinet site, and Zuni Pueblo will have one regeneration site. These new buildings will be within the proposed project area footprint. The third regeneration site location will be housed in an existing building in Socorro, NM (New Mexico Tech Grad Site).

Hand-holes will be placed at every 1,750 feet (approx.) along the length of the proposed project, depending on site characteristics. These hand-holes provide access points for maintenance and inspection purposes. The installation requires minimal excavation for the dimensions of the handhole, within the boundaries of the proposed project area footprint. The installation of the proposed project (broadband fiber network cable and associated infrastructure) would not create any hazardous waste that could affect surrounding communities or natural resources. The outcome of the installation is to provide a more effective, efficient, and reliable Internet service for underserved Tribal education facilities. Impacts associated with improvements to the local infrastructure would be of benefit to Tribal communities. No significant impacts to infrastructure are anticipated.

SOCIOECONOMIC RESOURCES

The proposed project would create positive effects from the introduction of high-speed Internet to disadvantaged and underserved Tribal communities and anchor institutions along the proposed project area. It is anticipated this proposed project will provide high-speed Internet services to support projected population increases and employment growth in

the long-term. In the short-term, the proposed project will stimulate local and Tribal economies with projected potential benefits:

- Provide employment research, training, and opportunities at the educational facilities connected to the SFIS PEN.
- Education opportunities for community members.

The accessibility to the proposed high-speed Internet services within the identified underserved Tribal communities would assist job creation and long-term economic growth and future opportunities for Tribal members. There are potential socioeconomic resource benefits to Tribal communities as a result of the proposed action.

HEALTH AND HUMAN SAFETY

There are two National Priority List (NPL) sites identified near but not within the proposed project area. According to the EPA, the Cal West NPL site possesses no unacceptable human exposure pathways and determined the site is under control for human exposure. Additionally, the Eagle Picher Carefree Battery NPL site possesses no unacceptable human exposure pathways and was determined the site is under control for human exposure. Therefore, the proposed action would have no impact on human health and public safety.

There are no hazardous substances or any factors that would generate adverse health issues for community members within the proposed project area. During construction, factors such as falling, tripping, construction equipment failure, or natural wildlife predators will temporarily pose an issue for workers within the proposed project area. After construction is completed, there will be no threats or potential residual effects to human health and safety. Traffic management plans will be implemented, as needed, to ensure worker and pedestrian safety. Beneficial effects will include telehealth and enhanced emergency management communication ability. No negative impacts are anticipated from the construction and resulting fiber services.

CUMULATIVE IMPACTS

Upon review and evaluation, as indicated in this document and conveyed within the EA, there are no significant cumulative impacts on the following resources: land surface, vegetation, wildlife, surface water, groundwater, wetlands, air quality, soils, and cultural resources. There are anticipated positive impacts to socioeconomic conditions and human health and safety for the Tribal communities and local municipalities because of the proposed action.

In consideration of other reasonably foreseeable actions occurring withing the region, it is determined that this construction project will not cause significant impacts or contribute to the cumulative impacts of actions within the area.

Within the project areas and APE, there will be ongoing cultural resource surveys and investigations prior to construction. However, these survey methodologies will not cause effects that would cause negative cultural resource concerns due to appropriate Pueblo and/or Tribal monitoring.

Overall, there are no major impacts anticipated that affect natural and cultural resources and surrounding environment. As described throughout this FONSI, the project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. As such, no cumulative impacts to the environment are anticipated.

PUBLIC COMMENT

NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA conducted a public comment period for the EA. Public notice was placed in the *Albuquerque Journal*, a local newspaper of general circulation. The notice of the proposal and EA was also posted on NTIA's website for national exposure. The notice described the proposed project and comment process and provided guidance on where to view the document and federal points of contact. The comment period began on June 15, 2024, and concluded on July 14, 2024. No comments were received by NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA.

MITIGATION MEASURES

The following mitigation measures apply to this project:

- All surface disturbing equipment should be inspected and cleaned prior to coming onto public lands. This is especially important for vehicles from out of state or if coming from a weed infested area.
- If fill dirt or gravel is brought onto public lands, the source must be noxious weed free.
- Construction sites should be monitored for the life of the project for the presence of Invasive/Noxious weeds (includes maintenance and construction activities). If weeds are found, the Socorro Field Office will be notified and it will determine the best method for the control of the particular weed species.
- All seed shall be certified noxious weed free. Areas will be monitored to determine the success of re-vegetation, the presents of invasive/noxious weeds, and will be reseeded if necessary.
- All seed, hay, straw, mulch, or other vegetation material transported and used on public land for site stability, rehabilitation, or project facilitation shall be certified noxious weed free of all reproductive parts upon the passage of a weed free law in the state of New Mexico. All baled feed, pelletized feed, and grain used to feed livestock shall also be certified as free of noxious weed seed.
- Consider livestock quarantine, removal, or timing limitations in invasive/noxious weed-infested areas.
- Ranchers and farmers will be coordinated with prior to construction to avoid any disruptions to cattle grazing.
- It is recommended that all vehicles, including off-road and all-terrain, traveling in or out of weed-infested areas should clean their equipment before and after use on public land.
    - NM Noxious Weed List Updated June 2020: https://www.emnrd.nm.gov/sfd/wp-content/uploads/sites/4/Weed-List-memo-and-weed-list-2020.pdf
- Directional drilling beneath water features and roadways to help avoid and minimize impacts to surrounding biological resources (species and habitats).

- No construction of a project phase will commence until review is concluded under the terms of the PA, including the mitigation of any adverse effects to historic properties.

- Work activities associated with the project will be subject to cultural and ceremonial event schedules that will be prescribed in the work planning and installation contractor phases of the project.

- Should historic properties be identified within the APE, the Signatories to the PA have agreed on a process to apply avoidance measures to avoid adverse effects. If avoidance measures are not adequate, the PA stipulates the development of a treatment plan with proposed minimization and mitigation measures.

- SFIS will be subject to an inadvertent discovery plan during all construction. In the event cultural resources are discovered during construction, the plan directs the construction project manager to immediately identify appropriate law enforcement authorities, NTIA, ACHP, appropriate SHPO/THPO, and federal land managing agency, if applicable, within 48 hours of the discovery.

- The implementation of an inadvertent discovery plan and cultural monitors are precautions required during installation methods near known cultural resources and historic structures. It is understood that vibration and/or seismic activity may affect the core and veneer and adobe structures near historic and archaeological resources. As a mitigation measure, special precautions such as beginning the vibratory plow at the slowest speed possible to gauge the ground and soil conditions; then potentially increase speeds if conditions permit.

- All work within the specific construction area along the proposed path on any given day would cease if any federally listed species were observed by the Contractor. Depending on the location where the species was observed, the USFWS and/or Tribal officials would be notified immediately.

- SFIS will work with NPS to broadcast an NPS specific seed mix for revegetation purposes across El Malpais and El Morro National Monuments.

DECISION

NTIA, BLM, BIA Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA conclude that constructing and operating the project as defined by the Preferred Alternative, identified BMPs, and protective measures, will not require additional mitigation. A separate mitigation plan is not required for the project. This NEPA decision is intended to cover all cooperating agencies' respective authorizations. The analyses indicate that the Preferred Alternative/Proposed Action is not a major federal action that will significantly affect the quality of the human environment. NTIA, BLM, BIA, Southwest Region, Zuni, Southern Pueblos and Navajo Ramah Agencies, FWS, NPS, USACE, FHWA and EPA have determined that preparation of an EIS is not required.

Issued on August 11, 2025, by:

AMANDA PEREIRA

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Date: 2025.08.11 09:57:08 -04'00'

Amanda Pereira

Environmental Program Officer
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Washington, DC 20230

The FONSI was completed in accordance with the Executive Order 14154, Unleashing American Energy (Jan. 20, 2025}, and Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025}, require the Department to strictly adhere to the National Environmental Policy Act (NEPA}, 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994} and 14096 (Apr. 21, 2023}. Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility.

The BIA Southwest Region verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The [Office] has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

The BIA must meet its responsibility to review and approve actions on Tribal lands held in trust for the benefit of the Tribe. The BIA and Tribe determine if a proposed project might significantly impact Tribal and adjacent lands. The federal action required is for BIA approval of the proposed ROW grant. Approximately 4.03 miles of fiber would be installed within Ramah Navajo Chapter lands requiring a BIA Ramah Navajo Agency ROW authorization.

Issued on [Month, Date, Year], by:

ERMALINDA HENIO Digitally signed by ERMALINDA HENIO
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Ermalinda Henio

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Ramah, NM 87321

The FONSI was completed in accordance with the Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility.

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The BIA must meet its responsibility to review and approve actions on Tribal lands held in trust for the benefit of the Tribe. The BIA and Tribe determine if a proposed project might significantly impact Tribal and adjacent lands. The federal action required is for BIA approval of the proposed ROW grant. Approximately 79.73 miles of fiber would be installed within the Pueblos of Isleta and Acoma requiring a BIA Southern Pueblos Agency ROW authorization.

Issued on [Month, Date, Year], by:

MAUREEN BROWN

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Date: 2025.07.24 14:20:10 -06'00'

Maureen Brown

Superintendent
Bureau of Indian Affairs
Southern Pueblos Agency
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The FONSI was completed in accordance with the Executive Order 14154, Unleashing American Energy (Jan. 20, 2025}, and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025}, require the Department to strictly adhere to the National Environmental Policy Act (NEPA}, 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994} and 14096 (Apr. 21, 2023}. Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility.

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The BIA must meet its responsibility to review and approve actions on Tribal lands held in trust for the benefit of the Tribe. The BIA and Tribe determine if a proposed project might significantly impact Tribal and adjacent lands. The federal action required is for BIA approval of the proposed ROW grant. Approximately 23.13 miles of fiber would be installed within Pueblo of Zuni lands requiring a BIA Zuni Agency ROW authorization.

Issued on [Month, Date, Year], by:

LABERTA FARRELL Digitally signed by LABERTA FARRELL
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The FONSI was completed in accordance with the Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility.

The BLM, Albuquerque District Office, verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The office has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

The BLM concurs that this FONSI will not have significant impact on the human environment on BLM-managed land. In a separate document, BLM will write its own decision record for the right-of-way permits stemming from this FONSI.

Issued on July 7, 2025, by:

Sabrina A. Flores

Sabrina Flores

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Issued on [July 10, 2025], by:

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Shawn Sartorius

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Issued on August, 07, 2025, by:

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Matthew T. Miller, P.E., PMP
Lieutenant Colonel, U.S. Army
District Commander

United States Army Corps of Engineers, Albuquerque District
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Albuquerque, NM 87109

National Park Service Decision

Selected Alternative

A small portion of the Santa Fe Indian School Broadband project is within the boundaries of El Malpais National Monument and El Morro National Monument in New Mexico. The Selected Alternative involves placing approximately 6.28 miles of fiber optic cable within El Malpais National Monument and an additional 2.01 miles within El Morro National Monument, all within a 10-foot-wide (ROW) in the existing Department of Transportation ROW along New Mexico State Road 53. The authorization of NPS lands for this use requires a ROW permit.

El Malpais National Monument preserves and interprets the natural and cultural resources of a volcanic wilderness, including the Grants Lava Flow and the Chacoan great house community of Las Ventanas. It is home to one of the best continuous geological records of volcanism, featuring 11 volcanic vents and nine major lava flows, with the oldest dating back over a million years. These lava flows, which are fundamental resources of the park, have created unique biological habitats and cultural landscapes, as well as significant subsurface features like volcanic vents, lava caves, and extensive lava tube systems that support rare cave-dependent organisms. Other fundamental resources include unusual vegetation, including rare kipukas, pygmy conifer forests, and ancient trees and archaeological resources that reflect past cultural activities, particularly related to the Chaco-style community of Las Ventanas. These highlight the connection between historical and contemporary Puebloan communities (Foundation Document, El Malpais National Monument, September 2014).

El Morro National Monument protects Inscription Rock, which features over 2,000 inscriptions, petroglyphs, and pictographs that represent a cultural continuum spanning more than 1,000 years, from Ancestral Puebloans to Spanish explorers and other travelers. Fundamental resources include archaeological resources, including well-preserved pueblo sites atop Inscription Rock, which are among the largest 13th and 14th-century settlements in the American Southwest. The distinctive geology and geography of El Morro is also a fundamental resource, including its natural travel corridor, prominent landmark, and soft sandstone, provided an ideal setting for early inhabitants and travelers to leave their marks (Foundation Document, El Morro National Monument, September 2014).

Santa Fe Indian School submitted a SF-299 application for the ROW permit in April 2024. The application included information to support the use or occupancy of NPS-administered lands within the Monuments to operate and maintain fiber optic cables within a buried conduit. This installation of the fiber optic cable occurs at a minimum depth of 36 inches below the surface via directional boring (ASTM F1962-22), depending on site conditions. The directional boring technique uses a directional boring machine to drill a pilot hole with a drill head then pull the conduit through the pilot hole for installation. The directional boring method is the primary method of installation for the project. There will be no need for staging areas for the project. All construction activities will remain within the defined ROW of the project, which includes the placement of heavy equipment. In addition to the ROW, and SUP will be required for the installation of the fiber optic cable.

National Park Service Authorities

The NPS may issue a ROW permit only on a finding that the ROW is not incompatible with the public interest. 54 U.S.C. § 100902. The Pueblo Education Network aims to develop middle-mile broadband infrastructure for tribes, facilitating participation in the digital economy. This network also connects Tribal PreK-20 schools and libraries to national research and education networks, modernizing education for Native communities. While the project will impact some of the Monuments' resources, those impacts are not expected to be significant. Thus, the NPS has determined that Santa Fe Indian School's broadband project is not incompatible with the public interest. Additionally, ROW permits may only be issued when there is no practicable alternative to the use of lands and waters within a System unit. Alternative locations for the fiber optic cable were evaluated in the SF 299 ROW application and Plan of Operation and Development. After review, the NPS determined that there is no feasible, practicable alternative except through the Monuments. See FEA,

page 6, for a description of why this alternative was considered but dismissed. Thus, the NPS may issue a ROW permit consistent with the statutory authority in 54 U.S.C. § 100902 and NPS policy.

The Selected Alternative will also require Special Use Permits (SUPs) for construction activities on NPS lands. There must be specific authority in the law to allow the type of special park use requested. Here, the SUPs are attendant to the ROW, authorized pursuant to 54 U.S.C. § 100902. SUPs may be issued so long as the activity will not result in derogation of the values and purposes for which the park was established. The purpose of El Malpias is to preserve, protect, and interpret natural and cultural resources that are an integral part of a volcanic wilderness that includes the Grants Lava Flow and the Chacoan great house community of Las Ventanas. (Foundation Document, page 4) The purpose of El Morro is to preserve Inscription Rock, its inscriptions, petroglyphs, and ancestral Puebloan archeological sites, and provides opportunities to experience these resources in their natural setting. (Foundation Document, page 2). The Selected Alternative does not alter the Grants Lava Flow or Chacoan great house community for Las Ventanas. Additionally, there will be no impacts to Inscription Rock at El Morro. The construction activities associated with the installation of the fiber optic cable and conduit will have short-term (days to weeks), small impacts within an existing ROW and disturbed land. Thus, the issuance of SUPs for the Selected Alternative will not result in derogation of the values and purposes for which the Monuments were established. SUPs must also include conditions for using the park that take into consideration safety, resource protection, and normal park visitation. SUPs issued for the Santa Fe Broadband project will include terms and conditions to address these factors, including additional mitigation plans, and reseeding, and archeological monitoring provisions to ensure that impacts to resources are limited.

The Selected Alternative meets the purpose and need of the EA and is expected to fulfil the NPS's statutory mission and responsibilities, considering all the requirements for the issuance of ROW permits and SUPs. The Selected Alternative incorporates all practical means to avoid or minimize environmental harm to Monument resources. NPS permit terms and conditions further ensure that impacts to the Monument resources and values will be minimized. The Selected Alternative will not result in the impairment of Monument resources or values or violate the NPS Organic Act. The NPS approval authority is limited to the actions within the NPS-administered lands.

National Park Service Non-Impairment Prohibition

The Organic Act of 1916 directs the U.S. Department of the Interior and the NPS to manage units “to conserve the scenery, natural and historic objects, and wildlife in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wildlife in such manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (54 U.S.C. § 100101(a)). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which the System units have been established, except as directly and specifically provided by Congress” (54 U.S.C. § 100101(b)(2)). Impairment Definition According to NPS Management Policies 2006, Section 1.4.5, an impairment is an impact that, “in the professional judgment of the responsible NPS manager, would harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.” Section 1.4.5 goes on to state that, “an impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park,
- or identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance.”

Per Section 1.4.6 of the NPS Management Policies 2006, the “‘park resources and values’ that are subject to the non-impairment standard include the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park:

- the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals; appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established."

Non-Impairment Determination for the Selected Alternative

As a cooperating agency under NEPA, the NPS contributed to the Draft and Final EA. The Final EA assessed impacts on noise, air quality, land and water resources, biological and cultural resources, aesthetic and visual resources, infrastructure, socioeconomic factors, and health and safety, summarized in the FONSI above. Following NPS Management Policies (2006), § 1.4.6, NPS has prepared a non-impairment determination for impacts to noise, air quality, water resources, geology, soils, vegetation, biological resources, historic and cultural resources, and viewsheds. Consistent with NPS Management Policies, §1.4.6 and as described in NPS guidance for preparing non-impairment determinations, a non-impairment determination is not made for land use, infrastructure, socioeconomics or health and safety because, under the Organic Act, the NPS does not consider these impact topics to be park resources or values subject to the non-impairment standard. *See Guidance for Non-Impairment Determinations and the NPS NEPA Process*. This information presented here is based on consideration of the Monuments' purposes, an analysis of the environmental impacts described in the EA, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of the NPS Management Policies (2006).

Air Quality

The Selected Alternative will not result in impairment of the Monuments' air quality due to the implementation of best management practices (BMPs) that will control dust and emissions, such as stabilizing active construction areas, prohibiting the burning of materials, and minimizing equipment idling. Additionally, construction activities will only last a few days or weeks, greatly limiting air quality impacts within the Monuments. Although there may be minor adverse changes or impacts to air quality on site during construction, because these are temporary and small, they will not result in impairment.

Geology and Soils, Vegetation

The installation of the conduit and fiber optic cable will result in removal and disturbance to soils and vegetation within a portion of the 10-foot ROW. However, these impacts are not expected to rise to the level of impairment because they are within the existing ROW where soils have already been disturbed, the amount of disturbance is limited to 6.28 miles in El Malpais and 2.01 miles in El Morro, and finally the Selected Alternative includes a reseeding plan which would restore the area that is impacted.

Noise

During the installation of the proposed project, construction noise from heavy equipment will occur within the ROW along the roadway for a maximum of 1 to 2 days or up to a week. Because of the short duration of the noise impacts, the proximity of the noise to an existing roadway, and the conservation measures included to minimize impacts on noise-sensitive biological resources, there will be no impairment of the Monument's soundscape.

Biological Impacts
The Selected Alternative will not impair the Monuments' biological resources, including threatened and endangered species. The US Fish and Wildlife Service (USFWS) concluded that the action is "Not likely to adversely affect" any listed species, as documented in the IPaC report and supported by a letter of concurrence received on May 20, 2024. The Selected Alternative does not disrupt known critical habitats, and an updated species list in June 2025 confirmed that no new species had been added or listings changed, maintaining the validity of the effect determination and USFWS concurrence. Because the Selected Alternative will not adversely impact listed species and because there are specific mitigation measure in place to ensure that there will be no significant impacts to these resources, the Selected Alternative will not result in impairment of biological resources.

Historic and Cultural Resources
Impacts from the project will not result in impairment of the Monument's historic and cultural resources because construction in each Monument will be subject to a review process that complies with 36 CFR 800.4 to 800.6. No construction will begin until evaluations identified in the Programmatic Agreement are completed and any adverse effects to historic properties are mitigated. The project planning incorporates cultural and ceremonial event schedules, and extensive public outreach has been conducted to engage stakeholders, including consultation under Section 106 of the National Historic Preservation Act.

Additionally, the Area of Potential Effect (APE) has been carefully defined to include all ground-disturbing activities, and a Records Check will identify previously surveyed historic properties, with special consideration given to Tribal consultation. Should historic properties be discovered, avoidance measures and treatment plans are stipulated in the project agreement to minimize impacts. Furthermore, the use of directional drilling minimizes ground disturbance, reducing the likelihood of affecting historic properties. Overall, proactive planning and consultation ensure that potential impacts on cultural resources are effectively managed and no impairment will occur.

Viewsheds
The Selected Alternative will not compromise the viewsheds of El Malpais National Monument or El Morro National Monument due to the use of directional drilling for construction. The fiber optic cable will remain hidden from view. The Selected Alternative will result in only temporary disturbances lasting 1 to 2 days or potentially up to a week within the ROW, with disturbances limited to 10 feet from the centerline. These short-term impacts will be addressed through revegetation using Class C (Hydroseeding) techniques, following NMDOT standards and tailored to the specific revegetation zones affected by the project. As all construction activities will be confined to the designated boundaries and appropriate mitigation measures will be implemented, no long-term impacts on the viewshed are expected, and the Monuments' viewsheds will remain unimpaired.

NPS Decision

Under the Selected Alternative, impacts to El Malpais National Monument and El Morro National Monument will occur within an existing, previously disturbed ROW. Impacts are temporary, lasting one to two days up to a week for construction in any specific area. Given the limited geographic scope, short duration of impacts, and the fact that construction will take place within the existing ROW, the NPS has concluded that these activities will not hinder the Monuments from fulfilling their purpose or cause unacceptable impacts or impairment to their resources and values. Additionally, permit terms and conditions will mitigate impacts further, while the Selected Alternative will enhance broadband access for Tribal communities.

Issued on July 21, 2025, by:

BRIAN CARLSTROM

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