

**National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Oklahoma Office of State Finance, Oklahoma Community Anchor Network (OCAN)**

Summary

The Oklahoma Office of State Finance (OSF) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install approximately 1,005 miles of new fiber optic cable. The new middle mile infrastructure will connect approximately 940,000 households, 56,000 businesses, and 1,100 community anchor institutions (CAIs). The new network will include installation of fiber optic cable underground within existing rights-of-way along city streets. The proposed action passes through 59 counties in Oklahoma, and is referred to as the Oklahoma Community Anchor Network Project (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to OSF, through BTOP, as part of the American Recovery and Reinvestment Act (ARRA). The funding must be obligated and the Project completed within three years. This timeline will comply with the laws and regulations governing the use of this ARRA grant funding.

BTOP supports the deployment of broadband infrastructure in unserved and underserved areas of the United States and its Territories. As a condition of receiving BTOP grant funding, recipients must comply with all relevant Federal legislation, including the National Environmental Policy Act of 1969 (NEPA). Specifically, NEPA limits the types of actions that the grantee can initiate prior to completing required environmental reviews. Some actions may be categorically excluded from further NEPA analyses based on the specific types and scope of work to be conducted. For projects that are not categorically excluded from further environmental review, the grant recipient must prepare an Environmental Assessment (EA) that meets the requirements of NEPA. After a sufficiency review, NTIA may adopt the EA, use it as the basis for finding that the project will not have a significant impact on the environment, and issue a finding of no significant impact (FONSI). Following such a finding, the BTOP grant recipient may then begin construction or other activities identified in the EA as the preferred alternative, in accordance with any special protocols or identified environmental protection measures.

OSF completed an EA for this Project in March 2011. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes:

- Installing approximately 1,005 miles of fiber along various existing state, city, or county rights-of-way (ROWs) via trenching, with approximately 15% installed via horizontal boring;
- Installing 15 new prefabricated hut structures along the Project route, within the existing ROWs; and
- Providing fiber drops to 32 CAIs from the middle mile backbone.

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Based on a review of the analysis in the EA, NTIA has 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 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 BTOP website (www2.ntia.doc.gov/) and the following contact:

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Purpose and Need

The purpose of the Project is to bring affordable broadband service to unserved and underserved communities in Oklahoma. The Project will deploy fiber in areas where, to date, it has not been economically feasible to install telecommunications infrastructure. The middle mile infrastructure will pass through 59 counties, providing opportunities associated with broadband technology to 940,000 households, 56,000 businesses, and 1,100 CAIs.

Project Description

The Project involves installing 1,005 miles of middle mile fiber and establishing 15 hut sites throughout Oklahoma. The network will include buried fiber. Approximately 85% of the fiber will be installed via trenching and 15% via horizontal boring. Construction will take place within public highway ROWs, along established electrical distribution or telecommunication cable routes. No cable will be constructed outside the public highway ROW.

Approximately 854 miles of underground fiber optic cable installed via trenching, along the Project route. Approximately 151 miles of buried fiber optic cable will be installed via horizontal boring. Horizontal boring will be used for installation in urban areas to minimize disturbance of surface features, such as driveways, city streets, county roads, highways, railroads, streams, culverts, and where any critical habitat has been identified. Underground vaults will be installed at approximately 1,500-foot intervals along the backbone and anchor routes within the ROWs. The fiber cable backbone and anchor extents will run through conduit

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in a trench measuring 4 inches wide by 6 feet deep. The trenching of any streams, creeks, or rivers will be avoided during construction of this Project. Fiber will be installed within a segment of US 70, over a portion of Lake Texoma in Marshall and Bryan Counties, via conduit on a one-mile bridge structure where trenching or boring are not feasible.

In addition, the Project will build 15 prefabricated huts along the backbone route, within the highway ROW. The huts are 30 feet long x 12 feet wide x 11 feet high and will house the State's telecommunications equipment. They will be installed on concrete foundations at designated locations adjacent to fiber optic cable vaults and will require clearing an area of approximately 1,100 square feet. Minor excavation will be required to run conduit housing the fiber connections from the cable vaults to the huts. In addition, electrical wire will be run from the existing utility infrastructure to provide power to the huts. OSF will install a 50 kilowatt propane generator in each hut to provide back-up power, as needed. The generator will also run for 30 minutes once a week for testing and maintenance. The designated prefabricated huts will be established at highway interchanges or intersections located within city limits. Fiber drops will be terminated at designated CAIs through established utility access points into the building. Inside CAI buildings, networking equipment, such as patch panel, design wave division multiplexing (DWDM), optical gear, and an uninterrupted power supply will be installed.

Alternatives

The EA includes an analysis of the alternatives for implementing the Project to meet the purpose and need. NTIA also requires that an EA include a discussion of the no action alternative. The following summarizes the alternatives analyzed in the EA.

Underground Fiber Installation (Preferred Alternative). As noted in the Project Description, this effort will include installation of approximately 1,005 miles of cable and 15 hut sites.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in Oklahoma. Under the no action alternative, new middle mile infrastructure would not be constructed. Many rural communities would continue to be unserved or underserved with respect to broadband internet access. Additionally, broadband services would not be provided to CAIs in the Project area. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

Alternatives Considered But Not Carried Forward. OSF considered the alternative of installing an all-aerial network. An all-aerial network would be too susceptible to severe weather conditions, such as icing, that can break the cable and render the system inefficient and not economical to maintain and sustain operations. This alternative would also increase the total cost of the Project and was therefore eliminated from further consideration. OSF also considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because of the high cost and limited internet connection speeds.

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Findings and Conclusions

The EA analyzed existing conditions and environmental consequences of the preferred alternative and the no action alternative in 11 major resource areas, including Noise, Air Quality (including greenhouse gases [GHGs]), 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.

Noise

This Project will have no impacts on noise during long-term operation. However, short-term increases in ambient noise levels are expected during the construction period. Noise created by machinery used during installation will be temporary and localized in nature. To reduce noise impacts, construction activities will occur during weekday daylight hours and construction equipment will be equipped with mufflers. Based on these considerations, no significant impacts on noise are expected to occur as a result of Project implementation.

Air Quality

Potential impacts to air quality associated with this Project will be mostly limited to the construction period. Fiber optic cable installation will result in negligible fugitive dust emissions because trenching and horizontal boring techniques result in only minor disturbance of the ground surface. Negligible fugitive dust emissions will result from the installation of fifteen new hut locations. OSF will install a 50kw enclosed backup power generator in each hut. The generator exhaust will be vented to the exterior of the structures. During long-term operation, the generators will contribute negligible air emissions. A short-term minor increase in the use of fossil fuel and associated GHG emissions will occur as a result of Project construction. BMPs will be used to control fugitive dust during the construction phase of the Project. Additionally, all construction equipment and vehicles will be maintained in good operating condition to minimize exhaust emissions. Based on implementation of these BMPs, construction of the planned network is not expected to have significant adverse impacts on air quality.

Geology and Soils

The Project will be installed in previously disturbed public ROWs. The cable will be installed in these locations to, among other considerations, minimize impacts on geologic and soil resources. Both trenching and horizontal boring techniques result in very minor, temporary disruption of the soils. Erosion control measures and BMPs will be implemented before, during, and after construction activities. In a letter dated January 24, 2011, the U.S. Fish and Wildlife Service (USFWS) addressed potential impacts to karst features in the area and identified BMPs for erosion and sediment control in the areas with sinkholes, springs, and streams that drain into subterranean caves. Sediment filtering and control of debris and excess materials will be managed in these fragile areas to avoid degradation of sensitive underground habitats. Mitigation notes will be incorporated into project plans to address karst avoidance; should a sinkhole or cave be encountered, all work will cease, a 300-ft no-work zone will be established, and the project will notify the USFWS Department Biologist of the find. With these measures in place, the Project is not expected to result in significant adverse impacts on geology or soils.

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Water Resources

Project construction activities could result in short-term, minor impacts on water resources within the Project area. The Project's fiber route will cross several streams, creeks, and rivers. With the exception of the Lake Texoma crossing, the cable will be horizontally drilled under the channel of all waterways encountered along the Project route. At Lake Texoma on US 70, the fiber optic cable will run through a conduit attached to the bridge. In a letter dated January 24, 2011, the USFWS addressed requirements for ensuring protection of water resources through BMPs for Streamside Management Zones to ensure the establishment of natural vegetated filters, erosion control, and increased filtration adjacent to natural or manmade waterbodies. In addition, as prescribed in the Standard Specifications for Highway Construction, OSF will implement measures to avoid storing chemicals, fuels, and lubricating oils within 100 feet of waterways; maintain a vegetative filtration strip adjacent to streams and wetlands; and re-vegetate all disturbed areas after construction. By avoiding construction in waterways and implementing erosion and sediment control BMPs, OSF will be able to construct the network with no significant impacts on water resources in the Project area.

Biological Resources

The preferred alternative will result in minor impacts on biological resources. Noise and human activity associated with fiber installation are expected to disturb some wildlife species, but these effects will be minor and temporary. Some disturbance to the ground surface and vegetation will also occur during construction activities. This disturbance will be limited to previously disturbed ROWs. In a letter dated January 24, 2011, the USFWS stated that it does not appear that this Project will impact any federally listed species and provided concurrence with a determination of "may affect, but is unlikely to adversely affect" the endangered Black-capped vireo habitat. The USFWS recommended avoidance or minimization of impacts to wetlands/riparian areas and karst areas. The USFWS also recommended avoiding disturbance of any nesting bald eagles and provided measures to avoid impact on any active migratory bird species' nest during nesting season (April through July). OSF will provide USFWS all final plans and decision documents associated with this project. The only habitat expected to be impacted is non-native Bermuda grass present within the mowed ROW. As a result, impacts to terrestrial wildlife and their habitats in general are negligible. Based on this analysis and following the guidance of the USFWS, OSF will be able to construct the fiber network with no significant adverse impacts on biological resources.

Historic and Cultural Resources

In October 2010, NTIA initiated correspondence with the Oklahoma Historical Society, State Historic Preservation Office (SHPO). In November 2010, OSF submitted an initial Cultural Resources Study Report to the OK SHPO. In December 2010, OSF met with the OK SHPO and State Archaeologist to discuss an appropriate methodology for identifying historic properties within the APE. Two historic sites and one archaeological site, likely eligible for NRHP listing, were identified within the project's APE.

In a letter dated January 19, 2011, the SHPO responded indicating that there were no known historic and cultural resources in the Project area and to contact the Oklahoma Archaeological Survey regarding prehistoric resources. In a letter dated January 25, 2011, the Oklahoma

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Archaeological Survey responded confirming the three known prehistoric locations within the project area that were identified during OK Highways Cultural Resource Program field inspections conducted from December 15, 2010 to January 7, 2011. The State Archaeologist confirmed that after a review of the Cultural Resource Assessment and field survey, there were three sites of interest within the ROW; two historic properties (NRHP eligible) and one prehistoric archaeological site. It was recommended that horizontal boring take place in these areas, at a depth of 5 feet for a length of 2,000 feet. In addition, the cable will be placed in conduit on the inside of the southernmost steel beam of the NRHP eligible Roosevelt Bridge over Lake Texoma on US 70 in a location not readily visible on elevation views. The cable will be installed via a 4-inch wide trench at the NRHP eligible Chaplin House, and the trench will be backfilled and vegetated, resulting in no impacts to the property.

In a letter dated March 15, 2011, OSF sent the SHPO additional information regarding the 32 proposed CAI sites. This information was sent in response to draft Environmental Assessment (EA) comments from NTIA regarding the NRHP eligibility of these sites along the project route. In a letter dated March 30, 2011, the SHPO stated that after review of the information, a determination was made that the Project should not affect any historic resources listed or eligible for the National Register of Historic Places (NRHP) provided that the activities remain in previously disturbed ROWs. The SHPO concurred that there are no historic properties affected by the project, including the fiber drop points at any of the 32 existing CAIs.

Through the Tower Construction Notification System, NTIA provided Project details to 36 tribes interested in the Project's geographical location (Oklahoma). OSF received responses from twelve tribes that were notified of the Project. Of the twelve tribes, OSF sent copies of the Cultural Resources Study Report to seven tribes that have affiliated lands in the project area. To the other five tribes, OSF sent clarifying letters indicating that the project does not contain tower construction and is not located near their known tribal lands. After reviewing the additional information, one tribe responded and advised of no further interest in consulting on the project. Two of the 36 tribes responded via TCNS that there would be no impact to religious, cultural, or historical assets. Fifteen tribes requested that if any human skeletal remains or any protected Native objects are uncovered during construction, construction should stop immediately, and state and tribal representatives should be contacted. The remaining 8 tribes that were notified provided no additional responses or condition requests to the TCNS notification.

All construction will be restricted to previously disturbed areas. If any cultural material is discovered during construction, the SHPO will be notified immediately and all activities halted until a qualified archaeologist assesses the cultural remains. If any human skeletal remains or protected Native objects are uncovered during construction, construction will stop immediately, and all consulting parties will be contacted. Based on these consultations, guidance from the commenting agencies, and additional protective measures to be implemented by OSF, the Project is not expected to have significant adverse impacts on historic and cultural resources.

Aesthetic and Visual Resources

The Project primarily involves installing fiber optic cable via underground trenching along major roadways. No cable will be installed outside of the public highway ROW. Fiber installation will

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have a short-term, minor, and temporary impact on aesthetic and visual resources due to the presence of construction equipment and limited soil disturbance. To minimize aesthetic and visual impacts, all construction equipment will be removed at the end of the workday. There are no protected lands, national parks, or nature reserves located in the Project area. The fifteen new hut sites are prefabricated buildings that will be installed within the existing ROW. Installation of the new huts will result in minor, long-term impacts to aesthetic and visual resources, but impacts will be minimized through placement of the huts in previously disturbed areas. Accordingly, the preferred alternative is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

Land Use

The fiber will be installed in previously disturbed ROWs. The fifteen new hut sites will be placed on a total of 0.4 acres of land that are within the existing ROW, established at highway interchanges or intersections, and located within city limits. Therefore, the Project will have no significant impact on land use.

Infrastructure

Project construction activities will not interrupt the traffic flow along the Project route. The new huts will be connected to the existing power source and will not have a negative impact on that infrastructure. The Project will improve communications infrastructure and is expected to result in improved transfer of information between CAIs, businesses, and individuals residing within the communities along the Project route. Overall, the Project will have a positive impact on infrastructure in Oklahoma, and will not result in significant impacts to infrastructure.

Socioeconomic Resources

The Project will provide improved communications infrastructure to residents who do not have access to broadband services in Oklahoma. The middle mile fiber backbone will also benefit these communities by providing broadband capabilities to 32 CAIs. An increase in both short-term and long-term employment opportunities are also anticipated as a result of the Project. The Project will have positive impacts on socioeconomic resources, and will not result in significant impacts to infrastructure.

Human Health and Safety

It is unlikely that hazardous wastes will be encountered during Project installation, because most construction will be completed within existing and previously disturbed ROWs. In areas where there are known contaminants, they are contained and are currently in various stages of continuous clean-up and remediation. There are seven known Brownfield sites and five active LUST cases located in the Project area. No fiber optic cable will be constructed near NPL listed sites in the general area.

All construction activities will be conducted by qualified, licensed contractors that will follow specific safety regulations, including the Standard Specifications for Highway Construction and the Manual on Uniform Traffic Control Devices (MUTCD). A plan will be implemented for hazardous materials management, waste management spill prevention and response, stormwater management, and pesticide management. Employees will be trained to promptly contain, report,

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and/or clean up any oil or hazardous material spill. All vehicles will contain portable spill containment and clean up equipment, and will be kept in good working order to prevent oil and fuel leaks. Traffic control will be provided by a certified flagging company or local law enforcement. With implementation of these protocols, the Project will not generate any significant adverse worker or traffic-related health or safety issues. Further, the new fiber will provide broadband service and directly connect medical facilities. The Project will enhance emergency and medical services and improve human health and safety throughout the Project area.

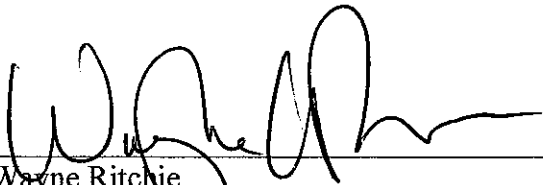
Cumulative Impacts

As described above, the Project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. As such, no cumulative impacts on the environment are anticipated.

Decision

Based on the above analysis, NTIA concludes 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. The analyses indicate that the proposed action is not a major Federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued:



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Date