

**National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
JKM Consulting, Inc., Broadband for the East Alabama Region Project**

Summary

JKM Consulting, Inc. (JKM Consulting) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install approximately 87 miles of new fiber, utilize 90 miles of existing cable, and collocate equipment on six existing towers. While the new network will be a hybrid of aerial and buried fiber, most of the fiber will be installed underground by open trenching or directional boring. The new network will directly connect 91 community anchor institutions (CAIs) and provide service to the region's last mile service providers. The proposed action passes through four Alabama counties, and is referred to as the Broadband for the East Alabama Region (BEAR) Project (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to JKM Consulting, 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.

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

The Project includes:

- Installing a hybrid broadband network of aerial and buried fiber in Calhoun, Talladega, Clay, and Randolph Counties in Alabama;
- Installing 87 miles of new fiber in existing rights-of-way (ROWs);
- Installing approximately 27 miles of fiber aerially by attaching to existing poles;

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- Installing approximately 60 miles of buried fiber by open trenching or directional drilling;
- Attaching fiber to existing poles or bridges, or directional boring for water crossings;
- Utilizing 90 miles of existing cable along the route;
- Directly connecting 91 CAIs through existing fiber lines and providing service to the region's last-mile service providers; and
- Mounting antennae on six existing towers and/or installing associated equipment in existing equipment cabinets at the tower sites.

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 high-speed broadband service within the Project area is inadequate. This Project will address the need for modernizing infrastructure and provide a foundation for long term economic stability and prosperity within these rural communities. The purpose of the Project is to bring affordable broadband service to unserved and underserved communities within four counties in Alabama: Calhoun, Talladega, Clay, and Randolph. The Project will deploy fiber in areas where, to date, it has not been economically feasible to install telecommunications infrastructure. The areas served by the Project include approximately 52,612 households, 3,707 businesses, and 91 CAIs, including educational institutions, government agencies, libraries, medical facilities, and emergency services. Without the new fiber, affordable broadband options at the needed bandwidth would not be available to many of the residents and businesses.

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Project Description

JKM Consulting will install approximately 87 miles of new fiber, utilize 90 miles of existing cable, and collocate equipment on six existing towers. The new network will connect 91 CAIs and last-mile service providers. The majority of the fiber network will be buried via trenching or directional boring, while the remaining portion of the route will be installed aerially. Fiber optic cable will be installed across streams and rivers either by directional boring or hanging the cable on existing bridges or poles. In urban areas, aerial installation will be used where underground installation is not feasible and existing poles are in place to accommodate the new fiber optic cable. Construction will take place in previously disturbed areas within existing public ROWs.

The majority of the fiber route will be installed underground, in existing ROWs, by open trenching or directional boring. When trenching, a 2 inch wide by 6 inch deep trench is opened by the plow. The trencher then automatically lays the fiber cable and re-fills the trench with the removed soil. Directional boring will be used to cross roadways, where aerial installation is not feasible, and bodies of water, such as wetlands, streams, or rivers. This method involves drilling a horizontal cable pathway from one access point along the route to another, installing conduit to house the cable, and then pulling the cable back through the conduit. Boring will begin at least 50 feet away from the edge of the resource, and tree roots will be avoided. The fiber optic cable will also be installed at least 60 inches below these resources, and floodplains will be avoided, to the greatest extent possible. If necessary, bore pits will be excavated at least 50 feet away from the edge of the sensitive resource to avoid direct impacts. Aerial installation will be used along portions of the route where underground installation is not feasible and existing poles can accommodate the new fiber optic cable.

The CAIs supported by the Project have existing conduit or will install new conduit within the building to the meeting point of the new fiber. The CAIs will be responsible for providing the interior equipment and connecting to the new fiber. Fiber will be run through the conduit to the interior equipment room. This Project will require no attachments to these structures.

In addition, the Project will install new antennae at six existing tower locations in Clay County (Bull Gap, Highland, and Lineville towers), Jacksonville (Chimney Peak), and two water towers in Clay County. All required equipment will be installed in existing equipment buildings or on the existing towers. JKM Consulting will use existing access roads to transport the new equipment to the tower sites.

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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.

Hybrid Underground and Aerial Fiber (Preferred Alternative). As noted in the Project Description, this effort will include installation of approximately 87 miles of new fiber. The network will directly connect up to 91 CAIs and last mile service providers. The new fiber optic cable will be installed aerially on existing pole lines and buried via open trenching and directional drilling.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in these four rural counties. Under the no action alternative, new fiber would not be constructed. These 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. JKM Consulting considered the alternative of installing an all-aerial network. This alternative relies solely on the cooperation of local power and cable providers for access to existing poles, which may create construction delays. Therefore, this alternative was eliminated from further consideration. An alternative that utilizes more underground conduit may be able to adequately address the project purpose and need, but would require additional underground construction work and likely require greater permitting and agency consultation. Consequently, an alternative network configuration that uses more underground conduit was eliminated from further consideration due to the increased potential for construction delays and environmental impacts compared to the Preferred Alternative. JKM Consulting also considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because of the inability to provide the capacity or speed needed to fully meet the purpose and need, and the greater potential for ground disturbance and associated environmental impacts.

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, 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.

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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. 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 limited to the construction period. Fiber installed underground via trenching and directional boring will result in minor disturbance of the ground surface. A short-term minor increase in the use of fossil fuel and associated greenhouse gas (GHG) emissions will occur as a result of Project construction, but the emissions will be below established thresholds. Construction of the planned network is not expected to have significant adverse impacts on air quality.

Geology and Soils

The Project's fiber route will be installed primarily underground using trenching techniques. This method will produce a narrow, shallow slit or trench that creates minimal ground disturbance. All fiber optic cable will be installed within existing ROWs along existing roads. No soil will be disturbed at the tower sites. Appropriate best management practices (BMPs) will be implemented to prevent sedimentation and erosion impacts in the Project area, including seeding and laying straw on disturbed areas. Consequently, the Project is not expected to result in significant adverse impacts on geology or soils.

Water Resources

Project construction activities are not expected to impact water resources. JKM Consulting alerted the U.S. Army Corps of Engineers (USACE) of all planned water crossings. The USACE and the Alabama Department of Transportation require that all bodies of water be crossed either aerially or via directional bore. To cross under water resources, such as wetlands, streams, rivers, lakes, and ponds, JKM Consulting will install the fiber using directional drilling. Specifically, for river and stream crossings, horizontal directional drilling will begin and end on upland areas at least 50 feet away from the wetland or upland boundary. The USACE issued a Nationwide Permit Authorization, dated December 10, 2010, for the Project.

Fiber optic cables will be placed primarily along roads within existing utility ROWs. JKM Consulting will install the majority of the fiber in a trench approximately six inches deep. This shallow trench will not to adversely affect groundwater flows. Therefore, no significant direct or indirect impacts to groundwater resources are anticipated. There are no coastal management zones within the Project area. Therefore, no impacts to coastal management zones are anticipated. No National Wild and Scenic Rivers are located within the Project area. There is potential for a temporary increase in stormwater discharge during construction, but appropriate BMPs will minimize erosion, sedimentation, and turbidity in receiving waters. By avoiding

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construction in waterways, and implementing erosion and sediment control BMPs, JKM Consulting will be able to construct the network with no significant adverse impacts on water resources.

Biological Resources

The preferred alternative may result in minor impacts on biological resources. Some disturbance to the ground surface will occur during construction activities, but this disturbance will be limited to existing ROWs and previously disturbed areas. Horizontal directional drilling will be used to install the fiber optic cable beneath the root zone of woody vegetation.

JKM Consulting consulted with the U.S. Fish and Wildlife Service (USFWS) regarding biological resources. In a letter dated October 29, 2010, the USFWS provided information on federally-listed or proposed, threatened or endangered species, or critical habitat known to occur in the Project area(s). The USFWS also concluded that, based on information provided by JKM Consulting, no further consultation is required under Section 7 of the Endangered Species Act (ESA). The following avoidance measures will be implemented by JKM Consulting along the project route.

- All streams will be crossed using directional drilling methods or by attaching fiber to existing bridges or poles.
- Best construction techniques will be used to minimize erosion.
- Directional boring will begin at least 50 feet away from the edge of the water resource and tree roots will be avoided.
- Gray bat (*Myotis grisescens*) – The USFWS will be contacted prior to commencing construction activities on two bridges along Choccolocco Creek and a survey for the gray bat will be conducted. JKM Consulting will work with the USFWS to determine how best to proceed for these two bridge crossings.

Based on this analysis and implementation of the recommended protective measures, JKM Consulting will be able to construct the network with no significant adverse impacts on biological resources.

Historic and Cultural Resources

JKM Consulting engaged the East Alabama Regional Planning and Development Commission (Commission) to analyze the archeological and architectural resources within the Project's area of potential effect (APE). In September 2010, the Commission submitted an initial cultural resource evaluation to the State Historic Preservation Officer (SHPO) at the Alabama Historical Commission. In a letter dated September 24, 2010, NTIA initiated formal consultation with the SHPO, and provided them a detailed summary of the Project. In a response dated October 6, 2010, the SHPO determined that the Project will have no effect on any known cultural resources listed on or eligible for the National Register of Historic Places. However, the SHPO requested that if artifacts or archaeological features are discovered during construction, all work shall cease

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and their office shall be notified. Thus, the Project will not have significant adverse impact on historic properties or archeological resources.

Through the Tower Construction Notification System (TCNS), NTIA provided Project details to 10 tribes interested in the Project's geographical location (Alabama). JKM Consulting received responses from 9 tribes that were notified about the Project. Four of the 9 tribes responded via TCNS that there would be no impact to religious, cultural, or historical assets and requested that the SHPO and the Tribe be notified in cases of new ground disturbance or in the event of unanticipated discoveries. Five other tribes requested additional information on the Project. JKM Consulting provided additional information to these tribes, as requested. After review of the additional detail, two tribes requested that, in the event of inadvertent discovery of archaeological artifacts and/or historic resources, JKM Consulting cease all activity in proximity to the discovery location and notify the Tribe's Tribal Historic Preservation Office (THPO). An additional tribe requested that JKM Consulting contact the Federal Communications Commission (FCC) regarding mounting equipment on existing towers. JKM Consulting is currently in coordination and must complete FCC requirements and obtain appropriate permits and licenses regarding mounting and operating equipment on existing towers. To date, no response has been received from the other two tribes to which JKM Consulting sent additional information. The remaining tribe originally notified of the Project through TCNS has not yet responded.

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 and guidance from the SHPO, the Project is not expected to have significant adverse impacts on historic and cultural resources.

Aesthetic and Visual Resources

The Project involves attaching fiber optic cable to existing utility poles and burying the cable underground in existing ROWs, and installing antennae on six existing towers. Fiber installation will have a short-term, minor, and temporary impact on aesthetic and visual resources due to the presence of construction equipment and limited soil disturbance. Towers are not uncommon to the area's landscape. These towers have been in place for many years and have completed all required local planning and zoning permitting. The effects of viewing an additional antenna on these towers will have minimal impact on local aesthetics.

Approximately 14 miles of the fiber route will be installed both aerially on existing poles and underground within the existing ROW along State Highway 77 that runs through the Talladega National Forest. Two antennae will also be installed on the Bull's Gap and Highland Towers within the forest. JKM Consulting consulted with the U.S. Department of Agriculture – Forest

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Service (USDA-FS), Talladega Ranger District regarding these proposed Project activities. In a letter dated January 12, 2011, the Talladega Ranger District provided information on the special uses program and the required permitting process. JKM Consulting will obtain a special use permit from the USDA-FS prior to conducting any work within the forest boundaries. Accordingly, the Project is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

Land Use

The Project's fiber route will be installed in existing ROWs and equipment will be collocated on six existing towers. There will be no change in the existing land use due to the aerial and underground fiber installation. Therefore, the Project will have no significant adverse impact on land use.

Infrastructure

The Project will improve communications infrastructure and is expected to improve the transfer of information between CAIs, businesses, and individuals residing within the communities along the Project route. The Project's aerial fiber route will be attached to existing utility poles resulting in no change to the existing utility infrastructure. Existing buried utilities will be identified, located, and avoided. All existing roadways will be crossed either aerially or underground by horizontal directional drilling. The majority of the work will be conducted within existing ROWs off of existing pavement; therefore minimal effects on traffic are anticipated. No access roads will be constructed for the collocation of equipment on the six existing towers. Overall, the Project will have a positive impact on infrastructure within Calhoun, Talladega, Clay, and Randolph counties in Alabama, and is not anticipated to result in significant impacts on infrastructure.

Socioeconomic Resources

The Project will expand the region's existing fiber optic networks within four counties in Alabama. The project will create jobs, provide greater broadband access for educational institutions, upgrade public safety infrastructure, and advance health care innovation in unserved and underserved areas. Additional benefits include affordable broadband access for local consumers and businesses. The Project will have positive impacts on socioeconomic resources, and is not anticipated to result in significant impacts on socioeconomic resources.

Human Health and Safety

Potentially hazardous materials or waste sites were not identified along the Project route. Therefore, no impacts are anticipated along the fiber route. BMPs for workplace safety will be implemented to protect workers and the public along the Project route. Contractors will adhere to all federal, state, and local safety and health laws and regulations under the applicable Occupational Safety and Health Administration (OSHA) and Department of Transportation (DOT) guidelines to ensure compliance with proper safety and installation procedures. With

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implementation of these protection measures, the Project will not generate any significant adverse worker or traffic-related health or safety issues.

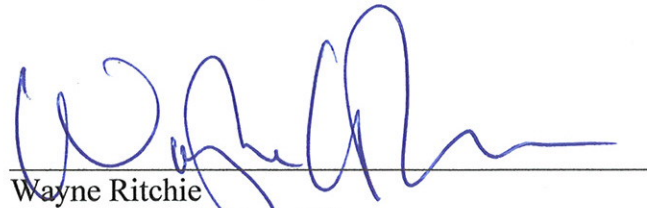
Cumulative Impacts

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, identified protective measures, and planned consultation studies, 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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