National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Contact Network, Inc., South Central Mississippi Broadband Infrastructure Project

Summary

Contact Network, Inc., applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install 840 miles of new fiber. The new fiber will connect approximately 316,000 households and 56,000 businesses, and 202 community anchor institutions (CAIs). The new network will consist of a hybrid of aerial and buried fiber. Approximately 200 miles of existing commercial fiber will also be leased and integrated with the new fiber. The proposed action passes through seventeen counties in Mississippi, and is referred to as the South Central Mississippi Broadband Infrastructure Project (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to Contact Network, Inc., 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 is driven by 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.

Contact Network, Inc. completed an EA for this Project in February 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 through seventeen counties in Mississippi;
- Installing the 840 mile network in existing transportation or utility rights-of-way (ROWs);
- Installing approximately 395 miles of fiber (47%) aerially by attaching to existing poles, replacing poles when necessary;
- Installing approximately 445 miles of buried fiber (53%) via plowing, trenching and directional boring;

- Installing 32 new points of interconnection, in the form of prefabricated concrete telecommunication huts, along the Project route; and
- Leasing 200 miles of existing commercial fiber.

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 south central Mississippi. The Project will deploy fiber in areas where, to date, it has not been economically feasible to install telecommunications infrastructure. The new middle and last mile infrastructure will pass through seventeen counties, providing opportunities associated with broadband technology to 316,000 households and 56,000 businesses, and 202 CAIs. It also will provide multi-gigabit broadband access to public school districts, regional hospitals, public safety organizations (first responders), and state agencies, allowing enhanced services and educational opportunities.

Project Description

The Project involves installing 840 miles of new fiber, leasing 200 miles of existing commercial fiber, and establishing 32 telecommunication hut sites throughout south central Mississippi. The network will include both buried and aerial fiber. Approximately 47% of the fiber will be installed on existing poles and 53% will be buried via trenching, plowing, or directional boring. Construction will take place within transportation and utility ROWs.

Contact Network, Inc. will install approximately 395 miles of aerial fiber optic cable along the Project route. Aerial construction methods may vary along the route based on field conditions. In some cases, a bucket truck equipped with a hydraulic basket lifting system will be used to affix the fiber cable to the utility pole. Where field conditions limit the use of bucket trucks, the fiber will be installed using static installation. Static installation involves workers on the ground lashing the cable to the utility pole. During aerial installation, metal hardware attachments will be used to hang cable on the existing wood utility pole that carries existing power and telecom cables. If necessary, deteriorated wooden poles located along the roadside would be replaced in kind. It is estimated that fewer than 5% of the poles will require replacement. Poles requiring replacement will be replaced by the utility pole owner, and the old pole will be disposed of by the owner. It is anticipated that these poles would either be refurbished by the owner or disposed of in a municipal landfill.

Approximately 445 miles of buried fiber optic cable will be installed along the Project route. Buried cable will be placed at a minimum depth of 30" in soil and a minimum of 36" under drainage ditches. Buried cable will be installed by plowing, trenching, or directional boring. The plowing machine moves slowly along the alignment, plowing a line in the soil, while also placing the cable. When trenching, a machine moves slowly along the alignment digging a trench approximately 6" wide. The cable is then placed in the trench. Both methods require some soil disturbance and backfilling on top of the new cable. When crossing driveways and roads, cable will be buried by directional boring. Directional boring may also be used at river and stream crossings. 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.

To avoid impacts on waterways, cable will either be attached to an existing bridge, attached aerially to existing utility poles, or installed under the waterway via directional boring. Ditches or other non-jurisdictional drainage features may be crossed using trenching depending on field conditions.

In addition, 32 telecommunication hut sites will be established along the Project route. The telecommunication huts are 8' wide by 8' long by 9' tall prefabricated buildings. Installation of the huts requires small scale site grading, placement of a 10' by 20' gravel pad, placing the building, and pulling cable to the building. A privacy fence may be constructed around the huts in any areas where required. The hut sites will be established on developed lands along the Project's fiber route.

The cable installation method at CAIs will be based on the configuration and availability of existing utility infrastructure at the facilities. The preferred method is to use existing conduit, from the edge of the property line to the telecom closet. If existing conduit is not available, aerial installation or directional boring will be used. The cables will terminate at the CAIs and connect to their communications equipment.

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.

Alternative 1 – Hybrid Fiber Installation (Preferred Alternative). As noted in the Project Description, this effort will include installation of approximately 840 miles of new fiber, leasing 200 miles of existing commercial fiber, and establishing 32 telecommunication hut sites. The new fiber optic cable will be installed aerially on existing pole lines and buried via trenching, plowing, and directional boring along the Project route.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in south central Mississippi. Under the no action alternative, new fiber 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 related to other alternatives being considered.

Alternatives Considered But Not Carried Forward. Contact Network, Inc. considered the alternative of installing an all-aerial network. Along portions of the Project route, there are segments where utility poles require lease agreements that are too stringent, or existing poles were not available and installation of new poles was not permitted. Therefore, buried cable is required in some areas and full aerial installation was eliminated from further consideration. The roadway ROW along some portions of the fiber route will be too narrow and already contains existing underground utilities, with little to no space to accommodate new buried cable. Thus, aerial cable is required in some areas and full underground installation was eliminated from further consideration. Contact Network, Inc. also considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because it would not support the broadband widths required to meet the data transfer needs of the key anchor institutions in the study area.

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 [GHG], 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 as a result of using construction equipment. Noise created by machinery used during installation will be temporary and localized in nature. To reduce noise impacts, construction activities will comply with local

ordinances concerning noise, may be limited to specific work hours, and construction equipment will be equipped with noise attenuation devices. 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 associated with the proposed construction activities and with operation and maintenance activities. Fiber optic cable installation will result in negligible fugitive dust emissions because trenching, plowing, and directional boring techniques result in only minor disturbance of the ground surface. It is possible that a limited number of poles may need to be replaced along the Project route, which would cause negligible impacts to soils. There will also be negligible fugitive dust emissions resulting from the site preparation for the 32 new telecommunication huts. A short-term minor increase in the use of fossil fuel and associated GHG emissions will occur as a result of Project construction, amounting to the release of approximately 8,815 metric tons of equivalent CO_2 emissions – an amount well below the Council on Environmental Quality's guidance of a presumptive effects threshold of 25,000 metric tons. BMPs will be used to control fugitive dust during the construction phase of the Project. Additionally, all construction vehicles will be maintained in good operating condition to minimize exhaust emissions. Maintenance and repair vehicles would be operated occasionally during long-term network maintenance activities and these vehicles would receive regular maintenance. HVAC systems required for operation of the interconnection huts will use the latest green refrigerant technology. Based on implementation of the BMPs, construction of the planned network is not expected to have significant adverse impacts on air quality. Also, no significant impacts to air quality are expected from operation and maintenance activities.

Geology and Soils

The Project's fiber route will be installed in utility and roadway ROWs. The cable will be installed in these locations to, among other considerations, minimize impacts to geologic and soil resources. Trenching, plowing, and directional boring techniques result in very minor, temporary disruption of the soils. For segments of cable that will be installed overhead, there is potential that existing poles will have to be replaced. Replacement poles would be placed either in the same location or adjacent to or as near as possible to the existing pole, thereby limiting the amount of ground disturbance. The 32 telecommunication huts will be established on developed lands either alongside major roadways or within city limits. Installation of the huts will require minor grading for the construction of a 10' by 20' pad. The total soil disturbance for all hut construction activities will be less than 0.2 acres. Erosion control measures and BMPs will be implemented for all construction activities. Consequently, the Project is not expected to result in significant adverse impacts on geology or soils.

Water Resources

Project construction activities could result in minor impacts on water resources within the Project area. The Project's fiber route will cross 16 major rivers and 148 perennial streams. Whenever these waterways are encountered, the cable will be attached to an existing bridge, attached aerially to existing utility poles, or installed under the waterway via directional boring. BMPs

will be used to minimize soil erosion into nearby water bodies. A portion of the Project area is underlain by a sole source aquifer. The Project is not expected to require deep excavation and would therefore not impact groundwater wells or aquifers. In a letter dated January 11, 2011, the U.S. Environmental Protection Agency (EPA) determined that the Project it is not expected to cause a significant impact to the aquifer system. However, the EPA recommended BMPs, such as containing construction debris, be implemented to protect the aquifer system. With implementation of the identified protection measures, no impacts to groundwater are anticipated.

The fiber route will cross floodplains. However, neither overhead cable nor underground cable will impede the flow of water during a flood or affect flood storage capacity. The telecommunication huts are sited outside of any flood-prone areas. Therefore, the Project will not impact identified floodplains.

Contact Network, Inc. is coordinating with the U.S. Army Corps of Engineers (USACE) to determine the Project's potential impacts on wetlands. Wetlands will be avoided, to the extent feasible, and compensatory mitigation will be required for any unavoidable impacts. If required, mitigation will be provided in one or more of the study area river basins in a bank designated by the USACE. Specific mitigation ratios and mitigation sites are being determined through the USACE permitting process. By avoiding construction in waterways, implementing erosion and sediment control BMPs, and providing compensatory wetlands mitigation, Contact Network, Inc. will be able to construct the network with no significant adverse impacts on water resources.

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 roadway and utility ROWs. The gopher tortoise, a threatened species, can be found within roadway or utility ROWs and has the potential to be impacted by the Project. The U. S. Fish and Wildlife Service (USFWS) provided information concerning potential occurrences of the gopher tortoise and its burrows in six of the study area counties (Covington, Forrest, Jefferson Davis, Jones, Marion, and Walthall Counties). Through continued consultation with the USFWS, conservation measures, such as pre-construction burrow surveys and worker training, were developed to avoid impacts to this species and its burrows. In a letter dated December 2, 2010, the USFWS made a determination that the Project may affect, but is not likely to adversely affect the gopher tortoise. Also, the proposed action would have no significant impacts on the bald eagle because it will not require tree clearing or construction of large structures that would alter the view sheds of bald eagles or obstruct flight paths. Should any bald eagles or their nests be observed during implementation of the project, Contact Network, Inc. will notify USFWS and the Mississippi Department of Wildlife, Fisheries, and Parks (MDWF&P) to determine the BMPs that would be implemented to further avoid impacts to the bald eagle.

Contact Network also coordinated with MDWF&P regarding potential impacts on biological resources. In a letter dated October 20, 2010, the MDWF&P recommended additional protective

measures, such as herbicide application methods, to prevent impacts to species of concern. In addition, the MDWF&P is currently conducting surveys of the Oldfield Mouse and Florida Harvester Ant. The MDWF&P requested that Contact Network, Inc. inform them if they encounter these species during construction activities. Because Contact Network, Inc. will implement and monitor BMPs during construction activities, the MDWF&P determined that the Project would likely pose no threat to listed species or their habitat. Based on this analysis and following the guidance of the USFWS and MDWF&P, Contact Network, Inc. will be able to construct the fiber network with no significant adverse impacts on biological resources.

Historic and Cultural Resources

On September 27, 2010, a consultation initiation letter, including a detailed project description, was sent by NTIA to the Mississippi Department of Archives and History, State Historic Preservation Officer (SHPO). Following the initiation letter, Wilbur Smith Associates (consultant to Contact Networks, Inc.) performed a cultural resources review and study for the proposed project to identify listed or eligible historic resources located within the area of potential effects (APE). The study included a records check for historic structures, conducted on October 5 and 8, 2010 at the Department of Archives and History. The records check did not identify any previously recorded resources and confirmed that the locations of the proposed telecommunication huts did not fall within any designated historic districts. An architectural historian also performed a field review of each hut location during the week of October 11, 2010, to identify any unrecorded historic resources with the APE of the proposed huts. No unrecorded historic resources were identified during this field review. A records check at the Department of Archives and History was also conducted on October 11 and 25, 2010, to determine if any archaeological sites had been previously recorded within the proposed buried cable routes. The archival research identified one site (Rice Creek – 22LK543) located near the proposed buried sections of the Project. This site was documented in 2001 and is marked as ineligible on the site form. Concurrent with the hut location field review, a registered professional archaeologist inspected the primary locations where the buried cable is proposed to evaluate the likelihood of any intact archaeological sites being located in the APE, which was determined to be very low.

On December 2, 2010, representatives of Wilbur Smith Associates had a telephone conversation with a Staff Archaeologist at the Department of Archives and History. The Staff Archaeologist requested revised maps for the Project at the scale of 1:24,000. In a letter dated December 6, 2010, Wilbur Smith Associates sent the requested maps to the Department of Archives and History. In a letter dated December 17, 2010, the Department of Archives and History concurred that no known architectural resources listed or eligible for listing in the National Register of Historic Places are likely to be affected. The Department of Archives and History also concurred with most of the findings regarding the potential impacts to archaeological resources – but found three sites (22Hi629, 22Hi653, and 22Hi851) to be directly within the project area. As a result, the Department of Archives and History indicated that these sites needed further evaluation with a Phase I survey before earth disturbing work could proceed. In a letter dated January 11, 2010, Wilbur Smith Associates notified the Department of Archives and History that the Project design team was able to adjust the route to the opposite sides of the roadway in order to avoid impacting the three known sites identified by the Department. Wilbur Smith Associates enclosed a new

map for these routes and requested concurrence that with the alternate routes, the project would have no effect to any known archaeological resources. In a letter dated February 11, 2011, the SHPO stated that because Contact Network, Inc. had modified the Project route, no known architectural or archeological resources listed in or eligible for listing in the National Register of Historic Places (NRHP) are likely to be affected.

Through the Tower Construction Notification System, NTIA provided Project details to seven tribes interested in the Project's geographical location (south central Mississippi). Of the seven tribes notified, one tribe requested additional information regarding the Project. After reviewing the additional information, the tribe responded that there would be no known impact to religious, cultural, or historical assets. The tribe also 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.

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 commenting agencies, 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 by burying the cable underground or attaching it to existing utility poles along major roadways. 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. None of the telecommunication huts will be located in historic areas or areas with scenic viewsheds. There are no national parks, state parks, wildlife refuges, or national forests located in the Project area. 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 transportation or utility ROWs. The 32 telecommunication huts will be established on developed lands along the Project's fiber route. The Project will not impact any prime or unique farmland. Installation of the broadband network does have the potential to attract future development. These developments could change the land use by converting unused or rural land to commercial, residential, or industrial development – and would have to be implemented in a manner consistent with local land use plans. These potential land use changes could encourage economic development beneficial to south central Mississippi. Therefore, the Project will have no significant adverse impact on land use.

Infrastructure

Project construction activities will result in a temporary interruption of traffic flow along the Project route. These interruptions are short-term and will subside when installation of the fiber is complete. The telecommunication huts will be placed along the Project route where they will be connected to existing power sources. The huts will be equipped with an energy efficient heating, ventilating and cooling system that will use the latest green refrigerant technology. 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 south central Mississippi and will have no significant impacts on infrastructure.

Socioeconomic Resources

The Project will provide improved communications infrastructure to residents who do not have access to broadband services in south central Mississippi. The network will also benefit these communities by providing broadband capabilities to 202 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 have no significant impacts on socioeconomic resources.

Human Health and Safety

Several potentially hazardous waste sites were identified in the study area. However, because the cable will be installed in existing transportation and utility ROWs, contact with contaminated soil or water is unlikely. Prior to construction, a health and safety plan and training program will be developed. The plan will address topics such as worker safety and visibility; traffic control and safety for drivers; equipment operation; proper personal protective equipment (PPE); hazardous materials identification and handling; environmental hazards; accident prevention; emergency procedures; and basic first aid and first responder techniques. Installation of fiber optic cable has specific safety procedures and best practices that should be used by all personnel who handle, pull, install, splice, terminate, test, or trouble shoot cables. The two major safety issues are proper disposal of the glass strands created by cutting and trimming the fiber, and the cleaning chemicals and adhesives used in installations. A project safety officer will be appointed, whose role will be to monitor and enforce all safety procedures. Safety rules will be posted during installation and reviewed regularly with all onsite personnel. With implementation of the protection measures, the Project will not generate any significant adverse worker or traffic-related health or safety issues. Further, the Project will provide broadband service to rural health care facilities and public safety entities. The broadband will provide enhanced emergency and medical services and improve human health and safety throughout the Project area. The Project will have long-term positive impacts on the health and safety of the study area communities.

Cumulative Impacts

As described above, the Project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. Potential indirect and cumulative impacts of

the proposed project include population growth and secondary development. Such beneficial impacts are consistent with the purpose and need of the Project. Also, future growth and development, and any associated changes in land use patterns and densities could be managed through local zoning ordinances and land use planning. 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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