

**National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
North Georgia Network Cooperative, Inc.
North Georgia Network Project**

Summary

North Georgia Network Cooperative, Inc. (NGN) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to create a 503 mile fiber optic network ring that will bring broadband access to North Georgia. The proposed action includes installation of 196 miles of core fiber infrastructure and 307 miles of middle mile fiber infrastructure. An additional 174 miles of existing fiber segments will also be incorporated into the new network. The entire length of new core and middle mile infrastructure will be installed via aerial construction, except for an 18 mile section of subsurface installation. There will also be a last mile service area, where connections will be made within 1,000 feet of the new fiber alignment. Installation of the fiber optic network ring will bring broadband access to approximately 245 community anchor institutions. This network, referred to as the North Georgia Network Project (Project), will connect approximately 8,000 end users, and provide broadband connectivity to an additional 16,000 end users in the last mile service area.

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

NGN completed an EA for this Project in December 2010. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes:

- Placing 485 miles of fiber optic cable on existing infrastructure poles within existing county, state, or electric membership cooperative (EMC) rights-of-way (ROWs);

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- Using plowing, open-cut trenching, and directional boring to install approximately 18 miles of underground fiber for the core and middle mile portions of the network within existing county, state, or EMC ROWs;
- Obtaining leased access to approximately 174 linear miles of existing fiber optic strands;
- Extending the fiber aerially or underground within an existing EMC ROW to connect approximately 8,000 end user facilities to the network;
- Installing five prefabricated 12 foot by 28 foot telecommunication buildings on previously disturbed, municipal or county-owned land;
- Installing 39 telecommunications cabinets that are 4 foot by 4 foot on a precast concrete slab within previously disturbed areas of county, state, or EMC ROW; and
- Placing underground prefabricated polymer or concrete hand holes at the beginning and end points of each segment of buried cable and every one to two miles along extended portions of the fiber route.

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:

Frank J. Monteferrante, Ph.D.
Environmental Compliance Specialist
Broadband Technology Opportunities Program
National Telecommunications and Information Administration
U.S. Department of Commerce
Room 2830B
1401 Constitution Avenue, NW
Washington, DC 20230
Tel. 202-482-4208
Fax 202-501-8009
Email FMonteferrante@ntia.doc.gov

Purpose and Need

The purpose of the Project is to create a broadband network in North Georgia that will provide broadband access to approximately 245 community anchor institutions. The Project will also create a last mile service area to connect approximately 8,000 end users and allow broadband connectivity to an additional 16,000 end users. The Project's open network will allow independent service providers to interconnect with and build out their own fiber-optic services to

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end users. The Project area currently has minimal or no access to broadband services. The new network will have a positive impact on businesses, healthcare, public safety, educational institutions, and local communities.

Project Description

Installation of the new fiber optic cabling will occur in Dawson, Fannin, Forsyth, Fulton, Habersham, Hall, Lumpkin, Rabun, Towns, Union, and White Counties. NGN will install 196 miles of core fiber infrastructure and 307 miles of middle mile fiber infrastructure. NGN will also obtain leased access to an additional 174 miles of existing fiber segments that will be incorporated into the new network. The entire core and middle mile networks will be installed via aerial construction, except for an 18 mile section of subsurface installation. All construction for the Project's core and middle mile network will be within existing county, state, or EMC ROW. For all leased segments of the Project, no construction, modifications, or upgrades will occur. The last mile service area is located within 1,000 feet of the fiber alignment.

NGN estimates that the Project will connect approximately 8,000 end users in the last mile service area. Installation for the last mile service area will also be completed within an existing previously disturbed EMC ROW. If the installation to the end-user is an aerial connection, the fiber optic cable will be installed from the existing power pole to the end user (i.e., side of the house where power line is installed). If the installation to the end-user is subsurface, the fiber optic cable will be installed in the existing power line trench. The subsurface power line is generally installed 36 inches or more below grade and the new fiber optic line will be installed approximately 24 inches below grade.

NGN will use two methods to mount the new fiber optic cable on existing infrastructure poles. The first method will add new fiber optic cable to the existing collection of lines. The second method involves removing an existing cable and replacing it with the new cable. NGN anticipates replacing less than 50 power poles for this Project due to either space or integrity issues. The primary method of replacement is to set the new pole directly abutting the existing pole and transfer all of the facilities from the old pole to the new pole. The old pole is then removed and the hole filled with dirt from the new pole hole. Alternatively, the existing pole may be removed first and replaced by a new pole in the same hole. This second method cannot be used in all applications due to the complexity of the structure and telecommunications facilities. If the used pole has sufficient integrity, the pole will be transported to the utility's warehouse/pole yard for reuse at another location. If the pole is unusable, it will be properly disposed. All pole replacement work will be completed within existing ROWs, and NGN does not anticipate the need to add supplementary power poles.

When installing fiber underground, the Project will primarily use the plow method. Other methods will be used if more appropriate for the existing environment. The plow method pulls a 36 inch long metal blade through the ground, making a slit approximately two to three inches wide. The fiber optic cable is connected to the blade, which pulls the fiber through the slit. When subsurface conditions preclude the use of the plow method, NGN will use the open-cut

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trenching method. In general, the depth of the trench will be 36 inches. All construction activities will occur in currently disturbed areas along transportation routes and the ground surface will be restored to its original condition. Directional boring techniques will be used to install conduit underground near certain areas such as the Appalachian Trail crossing along Highway 76 at the Towns/Rabun county line. This method is minimally invasive and leaves virtually no indication that the cabling is present. Directional boring is a steerable trenchless method of installing the underground conduit in a shallow arc along a prescribed bore path by using a surface launched drilling rig.

When buried fiber is needed to connect public and private end user facilities to the network, NGN will use directional boring techniques to ensure that all entrances maintain their current appearance. In areas where the ROW crosses an existing culvert, installation will occur above the culvert along the existing ROW and kept at a minimal depth. At river and stream crossings cable will be run through existing conduit bolted to bridge crossing structures or will be carried across the waterway on existing overhead lines, when available.

Hand holes will be installed at the beginning and end points of each segment of underground-buried cable to connect the underground locations to the aerial cables. Additional hand hole locations will be installed approximately every one to two miles between the beginning and end points of longer fiber optic segments. Underground hand holes are prefabricated polymer or concrete vaults ranging from approximately 1 foot by 2 feet, to 2 feet by 3 feet. The hand holes will be placed 2 to 3 feet below ground level.

There will be five pre-fabricated telecommunications buildings installed for the Project. The buildings will be installed on either a precast concrete slab or existing asphalt. The buildings are approximately 12 foot by 28 foot and will be placed in a 20 foot by 30 foot fenced compound. The building will be unmanned and have power utilities. Power will be brought to the equipment buildings by overhead lines tied to a building mounted connection pole. There will be no ground disturbance required for powering the facilities. Each telecommunications building will be installed on previously disturbed, municipal or county owned land. There will also be 39 telecommunications cabinets installed along the Project route. Each cabinet will be approximately 4 foot by 4 foot in dimension and installed on a precast concrete slab within previously disturbed areas of county, state, or EMC ROW.

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 – Underground and Aerial Installation of Fiber Optic Cable (Preferred Alternative). As discussed previously, this alternative includes installing 196 miles of core fiber infrastructure and 307 miles of middle mile fiber infrastructure, and leasing access to an

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additional 174 miles of existing fiber segments in the Project area. Installation of the fiber optic network ring will bring broadband access to approximately 245 community anchor institutions. Last mile service will be provided by connecting approximately 8,000 end users that are located within 1,000 feet of the fiber route. This alternative also includes installation of telecommunications buildings and cabinets.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist. Under the no action alternative, there would be minimal or no broadband coverage in the targeted underserved and unserved areas in North Georgia. The 245 community anchor institutions and 8,000 end users would continue to operate without adequate high-speed broadband access. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

Alternatives Considered But Not Carried Forward. During the planning, design, and development of the NGN infrastructure Project, alternative routes were considered. However, alternative routes would be more costly due to material costs and labor for pole replacement activities and the potential for increased land disturbing activities. Another alternative involved establishing agreements with non-NGN affiliates. These agreements would require leasing and maintenance fees in exchange for pole mounting locations. This alternative would hinder the execution of the Project and could potentially become cost-prohibitive. Additionally, NGN considered constructing the network entirely on existing overhead lines. However, this option was not selected as there were areas of the network where utility pole infrastructure was not physically available or was inaccessible to NGN, adding construction costs and time for negotiating ROW access. Upon further analysis of the NGN infrastructure routing alternatives, the aforementioned options did not meet the requirements for successful implementation of the Project and the preferred alternative was carried forward.

Findings and Conclusions

The EA analyzed existing conditions and environmental consequences of the preferred 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. Cumulative impacts were also evaluated.

Noise

Construction activities related to the Project will result in a temporary and localized increase in ambient noise. Installation of new fiber optic cable on existing poles, subsurface locations along disturbed ROWs, and the operation of that cable will not create a new, continuous source of noise. Therefore, this project will have only negligible short-term impacts on noise and no long-term impacts on noise in the area.

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Air Quality

Use of heavy diesel equipment during construction will temporarily increase air pollutant and greenhouse gas emissions (e.g., nitrogen oxides, carbon monoxide, sulfur oxides, particulate matter). The use of this construction equipment will be short term and the emissions will be similar to those currently generated by vehicles traveling along the Project route. Fugitive dust emissions may occur from installation along unpaved ROWs and staging areas. BMPs (e.g., watering down unpaved ROWs) will be implemented during construction, as necessary, to mitigate short term impacts on air quality. No significant air impacts will occur during long-term operation and maintenance of the network. Accordingly, no significant adverse impacts on air quality are expected as a result of this Project.

Geology and Soils

No ground disturbance is expected in locations where aerial fiber will be replaced on existing poles. However, some ground disturbance will occur if existing utility poles are replaced or during conduit and fiber installation via plowing, trenching, and boring activities. Disturbed soil will be restored to its original condition. All construction activities, including underground fiber optic cable installation and prefabricated telecommunications buildings and cabinets, will be placed in previously disturbed areas along existing ROWs. Furthermore, all construction activities will incorporate a BMP plan derived from the Field Manual for Erosion and Sediment Control in Georgia. Based on these considerations, the Project will not result in significant adverse impacts on geology and soils.

Water Resources

Construction activities for this Project will occur in previously disturbed areas along existing ROWs and roadways. At river and stream crossings, fiber will be installed using either subsurface directional drills, cable installed through existing conduit bolted to bridge crossing structures, or on existing overhead poles that span the water resource. In areas where the ROWs cross an existing culvert, buried cable will be installed above the culvert. These methods are intended to avoid impacts on adjacent water resources. Additionally, the NGN Project area does not impact Georgia's coastal zone management area. All construction activities will incorporate a BMP plan derived from the Field Manual for Erosion and Sediment Control in Georgia. Through implementation of appropriate BMPs, no significant adverse impacts on water resources will occur as a result of this Project.

Biological Resources

NGN conducted visual and pedestrian surveys and a desktop review of the Project route. The surveys revealed no endangered or threatened plant or animal species within the Project area. Furthermore, no habitat for listed species was identified within the Project area and all construction activities will occur on previously disturbed areas and along existing ROWs. On November 19, 2010, the U.S. Fish and Wildlife Service (USFWS) determined that the Project is not expected to significantly impact protected species or critical habitat. The U.S. Forest Service (USFS) was also consulted and provided the total mileage of the fiber route through the Chattahoochee National Forest (CNF). On July 22, 2010, the USFS responded that no

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significant impacts were expected because activities will occur along existing Department of Transportation ROWs within the boundaries of the CNF. According to boundary maps maintained by the USFWS and USFS, the Project footprint is entirely outside any published boundaries for wilderness areas. Based on these analyses, no impacts on biological resources are anticipated.

Historic and Cultural Resources

All core and middle mile portions of the planned network will be located within previously disturbed ROWs and utility easements. The plow method used to install underground cable results in minimal disturbance. Based on this assessment, NGN concludes that the Project will result in no impacts to any archaeological sites. Resource investigations completed during the Project planning process concluded that no properties listed, eligible for, or potentially eligible for the National Register of Historic Places (NRHP) will be adversely affected by the Project. In addition, NGN has indicated that bridges identified as sensitive structures will not be used to install cable across water features in the Project area. Instead, these water bodies will be crossed via directional drilling or aerially on existing poles that span the waterway. Based on these analyses, NGN concluded that the Project will have no impacts on historical resources. The Georgia SHPO concurred with this determination in a letter dated October 26, 2010. NGN also consulted with the USFS and the National Park Service (NPS) to identify any potential Project impacts to archaeological sites and historic structures under their jurisdiction. The NPS deferred comments to the USFS. On June 29, 2010, the USFS stated that the Project will have no adverse impacts on historic properties.

NTIA notified twelve tribes of the Project through the Tower Construction Notification System, and four tribes responded. Those tribes either expressed no interest in the project, or received the additional information requested. If any archaeological remains or resources are discovered during construction, NGN will immediately cease Project activity and notify the appropriate federal Agency and Tribe. No adverse effects on historic and cultural resources are expected to result from this Project.

Aesthetic and Visual Resources

The NGN network will cross the Appalachian Trail along Highway 76 at the Rabun and Towns county line. At this location, NGN will use directional boring techniques to install conduit beneath an existing parking lot. The Project corridor will be situated entirely along existing roadways; wilderness areas of the CNF will not be impacted by the network. Hand holes will be buried with lids nearly flush to the ground, colored to blend with vegetation, and likely become camouflaged by leaf litter and vegetation. NGN consulted with the USFS and the National Park Service (NPS) on this portion of the Project. No objections were received from either agency, and the USFS will issue a Special Use Permit to NGN for underground boring at the Appalachian Trail crossing.

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Although the planned network will cross rivers and streams in a few locations, the Project route comes no closer than three miles to the Chattooga River, a designated Wild and Scenic River in Georgia. This Project will have no significant adverse impacts on aesthetic or visual resources.

Land Use

Very minor impacts on land use may occur during installation of new fiber optic cable on existing poles and in shallow trenches along previously disturbed ROW. However, these impacts will be temporary. Operation of the installed cable to provide broadband services will have no long-term impact on land use in the Project area. Based on this evaluation, the Project will not have significant impacts on land use.

Infrastructure

Installation of new fiber optic cable on existing poles and in shallow trenches along previously disturbed ROW will not negatively impact infrastructure in the Project area. In the long term, Project implementation will enhance infrastructure in the area, and broadband service deployment is expected to increase productivity and spur job creation. Accordingly, no adverse impacts on infrastructure are anticipated as a result of this Project.

Socioeconomic Resources

Community stakeholders in the region anticipate using the network as a springboard for the development of more robust healthcare services, richer educational opportunities, more effective literacy programs, stronger workforce development initiatives, and more innovative job creation endeavors. The NGN network will have significant beneficial impacts on socioeconomic resources in the Project area.

Human Health and Safety

The installation of new fiber optic cable on existing poles and in trenches along previously disturbed ROWs will not negatively impact the health and safety of Project construction personnel or the general public. During Project implementation, NGN and its partner companies will follow provisions in a Project-specific safety manual to ensure a safe work environment and safe vehicular traffic in the active construction areas. Operation of the broadband network services will not negatively impact human health and safety in the Project area. Instead, beneficial impacts to human health are anticipated through expansion of regional broadband services and community health services. This Project will have no significant short-term adverse impacts, and will have beneficial long-term impacts, on human health and safety.

Cumulative Impacts

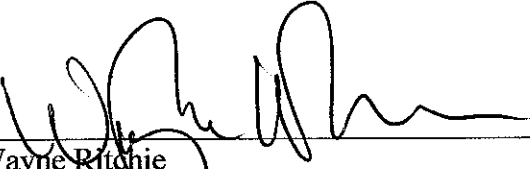
As described above, the Project will not have significant adverse impacts on any of the environmental resource areas evaluated in the EA. No cumulative impacts to the environment were identified or are anticipated.

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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:



Wayne Ritchie
Chief Administrative Officer
Office of Telecommunications and Information Applications
National Telecommunications and Information Administration

12/20/2010

Date