

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Summary

Independent Optical Network NewCo, Corp. (ION), applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install new fiber to connect last mile service providers and 125 community anchor institutions (CAIs) to an existing backbone network operated by ION. The new network will be a hybrid of aerial and buried fiber, with approximately 1,300 miles of backbone and 200 miles of spur routes. The proposed action passes through 79 communities in upstate New York, as well as areas in Vermont and Pennsylvania, and is referred to as the ION Upstate New York Rural Broadband Initiative (Project).

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

ION completed an EA for this Project in January 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 throughout upstate New York, and in areas of Vermont and Pennsylvania;
- Installing 1,308 miles of fiber backbone and 200 miles of spur routes;
- Installing the network as primarily aerial fiber on existing pole lines, and replacing poles when necessary;
- Installing buried portions of the fiber network in existing road rights-of-way (ROWs) and utility easements via plowing and directional boring methods.

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

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 provide and improve middle mile broadband service to unserved and underserved communities in upstate New York and parts of Vermont and Pennsylvania. The Project will deploy fiber in areas where, to date, it has not been economically feasible to install telecommunications infrastructure. The Project will add backbone capacity to ION's existing network and will enable connectivity for other last mile providers in rural portions of New York. Approximately 125 CAIs and public safety agencies will be added to the network. The extended fiber backbone will reach more than 72 towns with a combined total population of 574,765, including 237,364 households, and 39,502 businesses.

Project Description

The Project will install a network of aerial and buried fiber throughout upstate New York, and areas of Vermont and Pennsylvania. The Project involves installing 1,308 miles of middle mile fiber backbone to increase ION's existing telecommunications infrastructure. In addition, the Project will install 200 miles of spur routes to connect last mile service providers and CAIs to the backbone network. The Project route will parallel existing utility lines. ION will install all new cable in existing public ROWs along previously disturbed roadway ditches and utility corridors.

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Along most of the planned network route, ION will place aerial fiber optic cable on existing pole lines. Aerial cable will be installed by placing a supporting cable strand in the telecommunications space on the pole and lashing new fiber to the supporting strand. Placing the new fiber optic cable on existing pole lines will not result in any ground disturbance. Minimal ground disturbance will result when any replacement poles are installed.

In rural areas where cable is to be buried, ION will use plowing and/or directional boring techniques to install the cable. A plowing blade, no more than 3 inches wide, acts like a knife slicing a narrow trench into which the new underground cable will be placed. No new conduit will be installed when using this method. After cable installation, the trench will be immediately backfilled with soil disturbed by the plow blade and the area will be reseeded. Directional boring will also be used to install underground cable. 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. An area of approximately 60 square feet will be disturbed when boring to install the fiber optic cable. Once the fiber is installed, the area will be backfilled, packed, and seeded. In rural areas, the new fiber optic cable will be placed at least 36 inches below ground surface and at approximately the same depth as the existing cable.

Plowing and directional boring techniques will also be used to install underground cable in town or urban areas and when entering buildings. However, in these areas, the plow will be equipped with a blade not more than one inch wide to minimize ground disturbance. The new fiber optic cable will be placed at least 24 inches below ground and at approximately the same depth as the existing cable. A small ground level hand hole will be installed where the cable needs to be accessed and also at each building connected to the network. Cable will extend from the hand hole riser, through a 1.25-inch hole drilled through the outside wall of the building, and into the CAI. End user telecommunications equipment will not be provided as part of this Project.

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 1,508 miles of cable (1,308 miles of middle mile fiber backbone and 200 miles of spur routes). The new fiber optic cables will be installed both underground and on aerial pole lines, as appropriate for each location along the planned network route. In locations where existing utilities are buried, the cable will be buried to conform to local construction practices.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in upstate New York and parts of Vermont and Pennsylvania. Under the no action alternative, a new fiber network would not be constructed. Many rural communities would continue to be unserved or underserved with respect to broadband internet access.

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Additionally, new or improved broadband services would not be provided to rural schools and libraries, and government and medical facilities 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. ION considered the alternative of installing a wireless telecommunications network. However, wireless technology is not feasible for this network because hills, valleys, and tree clutter in the Project area make it difficult to propagate a wireless signal. In addition, middle mile networks require a significant amount of bandwidth capacity that cannot be met using a wireless solution. Wireless networks also have a greater potential for interference from other spectrum users and signals are affected by weather conditions.

ION also considered installing an all-aerial network. This alternative was not considered viable because the severe weather in the Project area can cause icing that will break the cable or poles and cause network outages. An all-underground fiber installation was also considered, but the rocky and mountainous terrain along the Project route limits ION's ability to place cable underground. There are also numerous historic sites, burial grounds, and wetlands that would be negatively impacted if ION buried cable along the entire Project route.

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.

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 lessen noise impacts, construction activities will occur during daylight hours in rural areas and within normal business hours in urban areas. 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 optic cable installation will result in negligible fugitive dust emissions because plowing and directional boring techniques result in only minor disturbance to 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. Construction of the planned network is not expected to have significant adverse impacts on air quality.

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Geology and Soils

The Project will be installed in public ROWs, paralleling existing utility lines, along previously disturbed road way ditches and utility corridors. The cable will be installed in these locations to, among other considerations, minimize impacts to geologic and soil resources. In locations where replacement or new poles are required, a small amount of earth will be disturbed for pole placement. Both plowing and directional boring techniques result in very minor, temporary disruption to the soils. Consequently, the Project is not expected to result in significant impacts on geology or soils.

Water Resources

Project construction activities could result in minor impacts on water resources within the Project area. To address these potential impacts, appropriate measures will be taken to control erosion and sediment discharge. ION developed a Storm Water Pollution Prevention Plan (SWPPP) outlining BMPs for erosion and sediment controls to address these potential impacts.

Several agencies were contacted during Project planning to determine permitting requirements for crossing rivers, streams, and freshwater emergent wetland areas. ION corresponded with the United States Army Corps of Engineers (USACE) to apply for a Nationwide Permit 12. On May 19, 2010, ION requested a permit for an aerial crossing of the Lackawaxen River at one location in Pike County, Pennsylvania. A second permit application was submitted on May 19, 2010, to cross the Delaware River at one location between Sullivan County, New York and Pike County, Pennsylvania. In this location, the fiber cable will be routed through an existing duct attached to the bottom of an existing bridge. As recommended by USACE, ION also contacted appropriate State environmental agencies and local offices to identify any additional Project requirements related to water resources.

Based upon the responses obtained from the USACE and relevant State agencies, no significant long-term effects were identified. By following agency guidance and BMPs outlined in the SWPPP, ION will be able to construct the network with little or no impact 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 largely limited to previously disturbed roadway ditches and utility corridors. ION conducted consultation with the U.S. Fish and Wildlife Service (USFWS) and relevant State agencies regarding biological effects of the Project. In a letter dated June 8, 2010, the Pennsylvania Department of Conservation and Natural Resources made a no impact anticipated determination. In a letter dated June 2, 2010, the Pennsylvania Fish and Boat Commission stated that no adverse impacts are expected from the Project. In correspondence dated September 21, 2010, the USFWS acknowledged receipt of ION's no effect or significant impact determination and stated that no further consultation is required for this Project as currently planned. In a letter dated June 14, 2010, the Pennsylvania

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Game Commission indicated that Project construction could impact the bald eagle (*Haliaeetus leucocephalus*). A bald eagle nest is located near the Project route, where the Lackawaxen River enters the Delaware River. To avoid impacts on the bald eagle, the Pennsylvania Game Commission recommended that no construction or fiber cable installation activities be conducted within 1,000 feet of the bald eagle nest during nesting season (i.e., December 1 to August 1). ION will avoid construction in this area during the timeframe specified. Based on these analyses and following the guidance of the commenting agencies, ION will be able to construct the fiber network with no significant adverse impacts on biological resources.

Historic and Cultural Resources

A detailed project description was provided to the New York, Pennsylvania, and Vermont State Historic Preservation Offices (SHPOs) for review and comment. In a letter dated April 27, 2010, the New York SHPO stated that the Project will have no effect on cultural resources on or eligible for inclusion on the National Register of Historic Places. In a letter dated June 17, 2010, the Pennsylvania SHPO stated that, although there are historic and archeological resources near the Project area, Project activity will have no effect on such resources. In a letter dated January 18, 2011, the Vermont SHPO stated that the undertaking will have no adverse effect on any historic properties and requested detailed plans for section 4a of the Project when they are available. ION will continue to work with these agencies and keep them informed of the final network design, build schedule, and final route selection.

Through the Tower Construction Notification System, NTIA provided Project details to twenty-one tribes interested in the Project's geographical location (i.e., New York, Vermont and Pennsylvania). There were no objections from Tribes regarding the Project. Out of the six tribes that responded to the notification, five expressed no interest. The sixth tribe, the Oneida Indian Nation, stated that there was no documentation for the presence of cultural or sacred properties within the Project area. The Oneida Indian Nation also requested that a protocol be developed to keep them informed of Project activities and address their concerns on an ongoing basis. ION agreed to these terms and will advise this tribe if there is any deviation from the current Project plan and any anticipated impact to historically or culturally significant tribal resources.

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 involves attaching fiber optic cable to new and existing aerial pole lines and burying fiber in public ROWs. Installation of Project infrastructure is not expected to significantly impact long-term aesthetic and visual resources because the Project route parallels existing utility lines and follows previously disturbed roadway ditches and utility corridors. The Project 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 during installation activities. Accordingly, the preferred alternative is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

Land Use

This Project will be conducted in previously disturbed roadway ditches and utility corridors. No land use changes will occur as a result of Project implementation. Therefore, the Project will have no significant impact on land use.

Infrastructure

The Project will improve communications infrastructure and is expected to result in improved transfer of information between public health, safety, and other government agencies; schools; businesses; and individuals residing within the communities along the Project route. The Project will have a positive impact on infrastructure in upstate New York, and parts of Vermont and Pennsylvania.

Socioeconomic Resources

The Project will provide improved communications infrastructure to rural residents who lack access to broadband services in Upstate New York and some in parts of Vermont and Pennsylvania. The ION middle mile fiber backbone will also benefit these rural communities by directly connecting over 100 CAIs including libraries, community colleges, State University of New York sites, correctional facilities, county government buildings, the Griffiss Business and Technology Park, health clinics, and mental health facilities. The Project will have positive impacts on socioeconomic resources.

Human Health and Safety

Project construction activities will take place in ditches and utility corridors along highways and roads; ION and its contractors will not work in the path of traffic. There will be no need to close or re-route traffic lanes, which will reduce impacts to vehicular traffic. ION and its contractors will promote highway safety and efficiency by warning and guiding all vehicular and pedestrian traffic. ION and its contractors who are exposed either to traffic or to construction equipment within the work area will wear high-visibility safety apparel. ION and its contractors will also implement an accident prevention program during Project construction. With implementation of these protocols, the new fiber build will not generate any significant adverse worker or traffic-related health or safety issues.

The preferred alternative will offer higher bandwidth connectivity to rural health care facilities in the states of New York, Vermont, and Pennsylvania. Through this enhanced connectivity, rural health care facilities will have access to larger medical institutions in their state. This improved connectivity will allow the remote medical facilities to provide better treatment to their patients by improving the access to specialized physicians located in major cities. Additionally, the Project will greatly improve the speed at which medical images can be transferred and reviewed. Broadband connections through the planned ION network will provide the opportunity for public safety agencies to upgrade their communications infrastructure and ensure better service and safety to the general public. In these ways, the Project will have a positive impact on human health and safety.

Cumulative Impacts

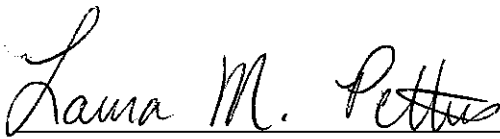
National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
ION NewCo, Corp., ION Upstate New York Rural Broadband Initiative

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.

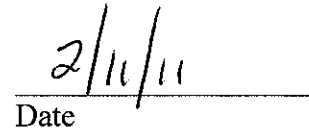
Decision

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:



Laura M. Pettus
Senior Communications Program Specialist
Office of Telecommunications and Information Applications
National Telecommunications and Information Administration


Date