National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
Zayo Bandwidth, LLC
Connect Anoka County Community Broadband Network

Summary

Zayo Bandwidth, LLC (Zayo Bandwidth), applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install approximately 240 miles of new fiber. The new middle mile infrastructure will connect approximately 145 community anchor institutions (CAIs), and as many as 141,000 households, 11,000 businesses, and an additional 600 CAIs by enabling local internet service providers to utilize the open network. While the new network will be a hybrid of aerial and buried fiber, approximately 71 percent of the fiber will be installed aerially. The proposed action will be conducted primarily in Anoka County, as well as in Isanti and Ramsey Counties in Minnesota, and is referred to as the Connect Anoka County Community Broadband Network (Project).

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

Zayo Bandwidth completed an EA for this Project in May 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 existing utility and infrastructure ROWs through Anoka County, as well as in Isanti and Ramsey Counties in Minnesota;
- Installing approximately 170 miles of fiber aerially by attaching to existing poles;

- Installing, via directional boring, vibratory plowing, or open cut trenching, approximately 70 miles of buried fiber where aerial electrical distribution and telecommunication cable routes are not available; and
- Installing direct broadband connection to 145 CAIs, through either aerial or underground methods, as dictated by existing infrastructure.

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 Minnesota. The Project will deploy fiber in areas where, to date, it has not been economically feasible to install telecommunications infrastructure. The middle mile infrastructure will pass through three counties, providing opportunities associated with broadband technology to 145 CAIs through direct connections, and approximately 141,000 households, 11,000 businesses, and an additional 600 CAIs by enabling local internet service providers to utilize the open network.

Project Description

The Project involves installing approximately 240 miles of middle mile fiber primarily in Anoka County, as well as in Isanti and Ramsey Counties in Minnesota. The network will include both aerial and buried fiber. Approximately 71 percent of the fiber (approximately 170 miles) will be

installed on existing overhead utility infrastructure and approximately 29 percent of the fiber (approximately 70 miles) will be buried via directional boring, plowing, or trenching. Construction will take place within existing utility and infrastructure ROWs. No cable will be constructed outside the ROWs and all installation of connections to buildings will be through either aerial or underground methods based upon existing infrastructure.

Zayo Bandwidth proposes to build a fiber network, with three core ring backbones, each of which will contain distribution routes to the termination sites. Zayo will not construct new buildings or sites. Approximately 170 miles of aerial fiber optic cable will be installed along the Project route. Overhead installation will involve lashing fiber optic cable to a suspension strand located on utility poles, using either the moving reel or stationary reel method. With the moving reel method, the reel-carrying vehicle and/or aerial lift truck is moved along the existing pole line between the cable reel and the suspension strand. With the stationary reel method, cable is pulled into place by hand or with a winch. At this time, Zayo Bandwidth does not expect to replace any poles during construction. In areas where existing roads are not present, such as aerial installations on existing poles in backyard utility easements, the installation will be performed by hand with poles being accessed via climbing.

Approximately 70 miles of buried fiber optic cable will be installed along the Project route. Zayo Bandwidth will bury the cable using directional boring, vibratory plowing, or open cut trenching techniques. Vibratory plowing or directional boring installations will occur in less densely populated areas. Directional boring will be used where a significant number of utility crossings or above-grade obstructions (trees, signage, guardrails, etc.) are present. The open cut trench method may be considered in densely developed areas where there is significant utility congestion. Directional boring will use a surface-launched drilling rig to drill a hole and advance an underground pathway along the designated installation route via an entry point pit and an exit point pit. Conduit and fiber will be pulled through the drilled pathway between these points, approximately 7 feet wide, resulting in some surface disturbance. The vibratory plow will use a vibratory cable plow and a crawler tractor to carry the cable feed system. As the equipment moves forward, the plow cuts a path, approximately 3 to 4 inches wide in the soil and installs the cable at a depth of 36 to 48 inches below grade. As the cable is installed, it will immediately be covered with the soil that was cast aside. Although the cable will be installed in existing ROWs, there will be minimal impact to the surrounding area because the plow is 7 to 8 feet wide. All pavement, sidewalks, impacted lawns, shrubs, and other vegetation removed or damaged during the cable installation will be replaced and/or restored.

The Project will provide direct connections to 145 CAIs throughout the Project area; however, the Project will allow expansion to connect an additional 600 CAIs located along the network route by enabling local internet service providers to utilize the open network. Depending on the existing infrastructure, the cable will be installed at the CAIs either aerially or underground. Installation at the CAIs will use existing access roads or driveways, or will be performed manually on existing poles or via directional boring if no existing access road or driveway is present. The physical penetration of the building will be through an existing conduit or a new

sub-grade or above-grade penetration. The building owner, type of building construction, and proposed installation of the lateral route will determine the specific method for running the cable into the structure.

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 Fiber Installation (Preferred Alternative). The Project, will install approximately 240 miles of middle mile fiber optic cable. Approximately 170 miles of the new fiber optic cable will be installed aerially on existing poles and 70 miles of the cable will be installed underground via directional boring, vibratory plowing, or open cut trenching. The cable will be buried only where aerial electrical distribution and telecommunication cable routes are not available.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in Anoka, Isanti, and Ramsey Counties, Minnesota. Under the no action alternative, new middle mile fiber infrastructure will not be constructed. Many rural communities will continue to be unserved or underserved with respect to broadband internet access. Additionally, broadband services will 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. Zayo Bandwidth considered the alternative of installing an all-aerial network. An all-aerial network will cause greater disturbance of wetlands and other sensitive areas where there is not an existing electrical distribution or telecommunication pole. Therefore, the all-aerial network was eliminated from further consideration. Zayo Bandwith also considered an all underground option. However, the all underground option will result in more extensive soil disruption and site disturbance. This alternative will also increase the total cost of the Project and was therefore eliminated from further consideration. Zayo Bandwidth also considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because it will not provide adequate broadband width to transmit large amounts of data over long distances and is not as reliable as fiber optic technology.

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. Machinery used during installation will create temporary and localized noise. To reduce noise impacts, construction activities will meet MN noise standards, will occur during weekday daylight hours, and construction equipment will be equipped with mufflers and turned off when idling. 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. Direct and indirect impacts to air quality will occur from construction activities of the Project, such as exhaust emissions from machinery and vehicles. However, these emissions will be minor, localized, and temporary. In addition, excavation and earth moving activities will result in localized, temporary, and negligible fugitive dust emissions during the construction of the Project. BMPs will be used to control fugitive dust during the construction phase of the Project, including monitoring construction and traffic activities for dust generation, reducing speeds on unpaved roads, and using water and other dust abatement methods to wet down dust-laden roadways. To minimize exhaust emissions, all construction equipment and vehicles will be maintained in good operating condition and turned off when not needed. 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. However, based on implementation of the BMPs, construction of the Project is not expected to have significant impacts on air quality.

Geology and Soils

The Project will be installed in previously disturbed utility and road ROWs. The cable will be installed in these locations to, among other considerations, minimize impacts to geologic and soil resources. Temporary impacts during the construction of the Project may include soil compaction, alteration in surface water drainage and infiltration due to soil compaction, disruption of agricultural practices, and crop damages during the growing season. Permanent impacts, due to underground construction, should be limited to those areas where installation of a manhole, if any, is required for future access. Underground installation will be accomplished by either directional bore, vibratory plowing, or open cut trenching. In addition, weed control measures will be implemented to prevent the spread of weeds onto adjacent agricultural land during construction of the Project. Erosion control measures and BMPs will be implemented before, during, and after construction activities. Consequently, the Project is not expected to result in significant adverse impacts on geology or soils.

Water Resources

Underground project construction activities could result in short-term, minor impacts on water resources within the Project area; overhead construction will result in no impacts. The Project's fiber route will cross several streams, creeks, and rivers, up to 111 times; 77 aerial crossings and

34 underground crossings (including multiple crossings of any one waterway). For the installation of utility services across Minnesota's Department of Natural Resources (MDNR) administered land and public waters, a License to Cross Permit is required. The Rum River, which is designated as a state wild, scenic, and recreational river, will be crossed four times: two overhead, one underground, and one using an existing conduit along the existing bridge. A Section 10 permit may be required for the crossing of the Rum River that will be utilizing existing conduit attached to the existing bridge.

The aerial portion of the Project will span over the waterbody between existing poles located well away from the banks, or via existing conduit along a bridge. The underground portion of the Project will be crossed via directional boring techniques. Placement of the underground cable will avoid all waterbodies, resulting in no direct permanent or temporary impacts to them. Construction equipment will be located on existing access roads or along previously disturbed upland areas within the existing ROW, outside of any surface water or wetland areas. Therefore, no direct impacts are anticipated.

Standard sediment and erosion control measures identified in Minnesota Pollution Control Agency (MPCA)'s Stormwater Best Practices Manual will be implemented to maintain sound water and soil conservation practices to minimize soil erosion, and protect topsoil and adjacent water resources. Construction will be completed in compliance with U.S. Army Corps of Engineers (USACE), MDNR, and National Pollutant Discharge Elimination System (NPDES) permit requirements, as applicable. A NPDES permit is required for discharge of stormwater generated from construction activities. As a requirement of the NPDES permit, a Stormwater Pollution Prevention Plan (SWPPP), will also be developed to manage stormwater discharges generated during construction activities. Work within 100 feet of any U.S. water will incorporate BMPs to ensure no fill or degradation of waters. In addition, Zayo Bandwidth will implement the following mitigation measures. Orange fencing will identify the extent of work zones; weed-free erosion control mechanisms will be used during storm events; and work zones will be periodically inspected by qualified biologists to ensure BMP practices are being adhered to. Zayo Bandwidth will identify and mark all wetland and waterbody boundaries along the construction corridor prior to construction. In addition, no construction will occur within or immediately adjacent to waterbodies or wetlands, to the extent feasible. Finally, Zayo Bandwidth will establish setbacks to identify safe fueling areas and establish staging areas a sufficient distance from waterbodies and wetlands, when possible or as required by permit conditions.

By avoiding construction in waterways and implementing erosion and sediment control BMPs, Zayo Bandwidth will be able to construct the network with little or no impact on water resources in the Project area. No significant impacts on water resources will occur as a result of implementing the Project.

Biological Resources

The Project 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. This disturbance will be limited to previously disturbed ROWs. In an e-mail dated October 21, 2010, the U. S. Fish and Wildlife Service (USFWS), Twin Cities Ecological Services Field Office, stated that it does not appear that this Project will impact any federally listed species. In another e-mail correspondence dated February 14, 2011, USFWS, Bloomington, MN, concurred and issued a "no effect" determination for the three species identified within the footprint of the Project: gray wolf, higgins eye pearlymussel, and winged mapleleaf.

Blanding's turtle, a state threatened species, is likely to occur within the Project area, as it nests in disturbed areas, such as land under power lines and road shoulders. Therefore, construction of underground portions of the Project will cause temporary disturbance to the habitat of the Blanding's turtle. In a letter dated February 23, 2011, Zayo Bandwidth requested concurrence from the MDNR on mitigation measures for construction around habitat of the Blanding's turtle. In the correspondence, Zayo Bandwidth's proposed mitigation measures included avoiding known habitat during the June nesting season; posting flyers with illustration of the Blanding's turtle to increase awareness among contractors and area homeowners; moving turtles by hand to a safe location; and using silt fencing in construction areas to ensure Blanding's turtle habitat is avoided.

MDNR manages three Wildlife Management Areas (WMAs) and two Scientific and Natural Areas (SNAs) within the Project area. Portions of the new aerial and underground fiber route will cross WMAs, SNAs, and USFWS conservation easements. The project will utilize existing pre-disturbed ROWs and little disturbance will occur to these areas, minimizing any potential impacts to wildlife habitat. Also, areas of moderate, high, and outstanding biodiversity significance, and areas containing known native plant communities potentially supporting rare and unique species, will be avoided by employing directional bore or vibratory plowing techniques, both of which involve less ground disturbance than open cut trenching. Minnesota noxious weed laws as described in Minn. R. Ch. 1505 will be followed, and county weed lists will be observed where they occur. Around bore sites, there will be weed control measures that do not allow for the spread of weeds onto adjacent agricultural land during construction of the Project. In order to mitigate the spread of weeds to adjacent areas, existing vegetated areas that are disturbed by construction will be restored in accordance with MN/DOT standards with respect to seed mixtures, recommended seeding schedules, and erosion control measures before seeding. Restoration will be implemented until a satisfactory percentage of vegetative cover is achieved. In addition, construction equipment will be cleaned prior to exiting one work area to access another.

In addition, the Project may have minimal impacts on the protected bird species identified within the Project Area. Both the overhead and underground portions of the Project may temporarily displace protected birds occurring in the Project Area. Furthermore, because both underground and overhead routes will be placed in existing ROWs, the Project route is not expected to cause habitat fragmentation. Based on this analysis and following the determination of the 'no effect' by USFWS, Zayo Bandwidth will be able to construct the fiber network with no significant impacts on biological resources.

Historic and Cultural Resources

In a letter dated September 14, 2010, NTIA initiated consultation with the Minnesota (MN) Historical Society (SHPO) regarding the Zayo Bandwidth Project. The letter to the MN SHPO from NTIA also included a project description and a map of the Project area. Zayo Bandwidth, through their consultants, Environmental Resource Management (ERM), continued Section 106 consultations with MN SHPO in a letter dated January 4, 2011. In this letter and supporting documentation, Zayo Bandwidth and ERM outlined the project and summarized the research they conducted into historic and cultural resources within the Project area, which included identification of 147 structures and 47 archaeological sites that were previously recorded in the Project area. This included 11 structures listed on the National Register of Historic Places (NRHP), 7 structures and 2 archaeological sites eligible for listing on the NRHP, one structure that is staff eligible, and no properties or archaeological sites with formal determinations of eligibility. In a letter dated February 2, 2011, the MN SHPO responded and issued a no effect determination on aboveground historic properties listed on or eligible for listing in the NRHP. The MN SHPO indicated that they consider the situation with archaeological resources to be different and requested additional information for the portions of the Project proposed for underground installation. Specifically, the MN SHPO stated their expectation that Zayo Bandwidth avoid any of the 47 identified sites, if within the proposed alignment, or to initiate further consultation if the sites cannot be avoided. They also requested additional information about the underground installation methods. The MN SHPO also indicated that they do not consider all ROWs to be previously disturbed, and requested that Zayo Bandwidth engage an archaeologist to conduct an archaeological survey and determine whether the ROWs along the Project route are previously disturbed.

ERM sent a letter to the MN SHPO on February 23, 2011, further summarizing their research regarding archaeological sites and listed and eligible NRHP sites. ERM also provided further information regarding the proposed "pre-disturbed" areas to be used as ROWs of the Project (including under the paved portions of various streets). The MN SHPO responded in a letter dated March 25, 2011, and further requested archaeological consultation for the miles of proposed underground broadband installation to ensure the proposed route and ROW are within "pre-disturbed" ground and that a known (archaeological) site has been properly avoided. The MN SHPO also indicated that the findings presented by ERM are based on engineering plans that were not previously submitted to the SHPO. ERM responded to the MN SHPO in a letter dated April 8, 2011, with additional information, including topographical maps showing exact locations and specific mitigation measures to known archaeological sites in the area. In a letter

dated May 4, 2011, the MN SHPO concurred with the finding of 'no effect' on properties listed in or eligible for listing in the NRHP as well as in reference to cultural resources within the proposed route.

Through the Tower Construction Notification System (TCNS), NTIA provided Project details to 23 tribes interested in the Project's geographical location (Minnesota). Of the 23 tribes, 14 tribes did not express any interest in the Project, and nine responded and requested additional information. Zayo Bandwidth provided additional information to these nine tribes. In response, four of the nine tribes determined that there will be no impact to religious, cultural, or historical assets as the project occurs in previously disturbed areas, and therefore provided no objection. They requested that if any human skeletal remains or any protected Native objects are uncovered during construction, construction should stop immediately, and state and tribal representatives should be contacted. The other five of nine tribes to which additional information was provided did not respond with additional comments.

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 additional protective measures to be implemented by Zayo Bandwidth, the Project is not expected to have significant adverse impacts on historic and cultural resources.

Aesthetic and Visual Resources

The Zayo Bandwidth Project primarily involves installing fiber optic cable on existing utility poles or underground along major road and utility ROWs. Zayo Bandwidth will not install any cable outside of the public ROW. Fiber installation will have a short-term, minor, and temporary impact on aesthetic and visual resources due to the presence of construction equipment, staging areas, and fiber installation. WMAs, SNAs, and USFWS conservation easements are crossed by ROWs within the Project corridor. If necessary, trees and shrubs that were removed during construction will be replaced. Accordingly, the Project is not expected to have a significant impact on aesthetic and visual resources.

Land Use

The fiber route will be installed in previously disturbed ROWs. Due to the small amount of land required for the Project, local land use and zoning categorizations will not be measurably affected. In addition, both overhead and underground routes will be located within existing ROWs that are already designated or used for utility infrastructure. The Project will not affect the overall planned development for the counties and municipalities within the Project area. Therefore, the Project will have no significant impact on land use.

Infrastructure

Project construction activities will result in a temporary interruption of traffic flow along the Project route. These interruptions will be short-term and will subside when installation of the fiber is complete. 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 Minnesota, and is not expected to cause significant impacts on infrastructure.

Socioeconomic Resources

The Project will provide improved communications infrastructure to residents who do not have access to broadband services in Minnesota. The middle mile fiber backbone will also benefit these communities by providing broadband capabilities to 145 CAIs, and potentially an additional 600 CAIs by enabling local internet service providers to utilize the open network. An increase in both short-term and long-term employment opportunities are also anticipated as a result of Zayo Bandwidth's Project. The Project will have positive impacts on socioeconomic resources, and is not expected to cause significant impacts on socioeconomic resources.

Human Health and Safety

It is unlikely that hazardous wastes will be encountered during Project installation, because the fiber will be attached to utility poles or installed underground in existing road and utility ROWs. However, if hazardous waste and subsurface contamination could be encountered, vibratory plowing will be used. If contaminated groundwater and/or soil are encountered during directional boring, the contaminated materials will be handled and disposed of in accordance to state and federal regulations. Appropriate plans will be prepared in advance of construction to handle these unanticipated occurrences, such as, but not limited to, Spill Prevention Control and Countermeasure (SPCC) Plans. Employees will be trained to promptly contain, report, and/or clean up any oil or hazardous material spill.

All construction activities will comply with local, state, and national health and safety standards. All OSHA standards related to the construction of the fiber optic line will be followed. All personnel involved in these activities will be required to use appropriate and recommended personal protective equipment.

Worker and public safety measures for construction activities within or along existing roadways will be conducted in accordance with applicable or appropriate MN Department of Transportation or local jurisdictional standards or guidelines. With implementation of these protocols, the Project will not generate any significant impacts. Further, the Project will provide broadband service and directly connect medical facilities, thus enhancing emergency and medical services and improving human health and safety throughout the Project area.

Cumulative Impacts

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

Decision

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, and protective measures, will not require additional mitigation. A separate mitigation plan is not required for the Project. The analyses indicate that the proposed action is not a major Federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued:

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Date