

National Telecommunications and Information Administration
Broadband Technology Opportunities Program
Finding of No Significant Impact
NebraskaLink, LLC., NebraskaLink Project

Summary

NebraskaLink, LLC, (NebraskaLink) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to install 450 miles of new fiber optic cable, lease 682 miles of existing fiber and 844 miles of dark fiber, and construct 11 telecommunications hub sites. The new middle mile infrastructure will connect approximately 85,000 households, 8,000 businesses, and 101 community anchor institutions (CAIs). The new fiber-optic cable will be installed underground within existing public rights-of-way (ROWs), and the 11 telecommunications hubs will be constructed in the ROWs or on adjacent private land. The proposed action passes through 15 counties in Nebraska, and is referred to as the NebraskaLink (Project).

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

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

The Project includes:

- Installing a new broadband network of fiber optic cable underground through 15 counties in Nebraska;
- Installing the 450 mile network along various existing, federal, state, city or county ROWs;
- Leasing 682 miles of existing fiber and 844 miles of existing dark fiber; and
- Installing 11 new telecommunications hub sites in ROWs or on private property along the Project route.

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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. In addition, NTIA, NebraskaLink, and NE State Historic Preservation Office (SHPO) entered into a Programmatic Agreement (PA) to manage any potential impacts to historic and cultural resources that are subject to Section 106 of the National Historic Preservation Act (NHPA). 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 Nebraska. 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 deliver broadband service to 15 counties, providing opportunities associated with broadband technology to 85,000 households, 8,000 businesses, and 101 CAIs.

Project Description

The Project involves installing 450 miles of new fiber, leasing 682 miles of existing fiber and 844 miles of dark fiber, and constructing 11 telecommunications hubs across Nebraska. The network will include buried fiber optic cable installed via plow insertion or directional bore. Construction will take place within public highway ROWs, along established electrical distribution or telecommunications cable routes. No cable will be constructed outside the public highway ROW.

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The middle mile infrastructure consists of backbone network lines and will provide broadband service to 250 communities either directly or through connections at CAIs . The majority of the cable will be installed using the static plow, by which caterpillar tractor (or equivalent equipment) pulls a plow through the ROW soil creating a narrow (2-inch) opening, through which cable is placed at a depth of at least 48 inches. A wheel packer follows behind the plow to press the soil back into place and “seal” the cable underground. In areas where surface disturbances must be minimized, the directional drilling method will be used to place cable. Cable route sections where directional drilling will be used include areas near wetlands, streams, protected species habitat, areas of archaeological artifacts, and historic or culturally important resources.

The Project will also include the placement of 11 prefabricated telecommunications hubs, which will be either huts or cabinets along the cable route. The cabinets will be placed within the public ROW and NebraskaLink will obtain the required permits and comply with local ordinances for the construction of these structures. The prefabricated hut buildings will be placed adjacent to the cable route, either in the ROW or on private land acquired by NebraskaLink for the Project. The huts will have a stone aggregate exterior or cement board siding to match the surrounding buildings. They will be approximately 12 x 20 x 8 feet in size, and positioned on 16 x 24 foot concrete pad foundations that meet local building codes. The telecommunications huts will be served by commercial AC power, and be equipped with both battery and on-site generator backup power supply. Depending on the final design, the backup generators and fuel tanks may be mounted on the huts or on separate concrete foundations alongside the huts.

Connection of the backbone network to the 101 CAIs will require trenching or boring between utility access points, and the installation of telecommunications equipment inside the CAI buildings. The Project will not make any structural modifications to the CAI buildings.

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). This Project includes installation of approximately 450 miles of new cable, leasing 682 miles of existing fiber and 844 miles of dark fiber, and constructing 11 telecommunications hubs. Construction will take place within public highway ROWs, along established electrical distribution or telecommunications cable routes. No cable will be constructed outside the public highway ROW.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist in Nebraska. Under the no action alternative, new middle mile 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

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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. NebraskaLink considered the alternative of installing an all-aerial network. An all-aerial network would increase soil disturbance in the areas where existing electrical distribution or telecommunications pole lines do not exist. It would also be too susceptible to severe weather conditions, such as icing, that can break the cable and render the system ineffective and not economical to maintain and sustain operations. This alternative would also increase the total cost of the Project and was therefore eliminated from further consideration. NebraskaLink also considered an all-wireless telecommunications network. However, wireless technology is not a viable alternative because of the comparatively high installation cost and slow internet connection speeds.

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

Short-term increases in ambient noise levels will occur during the Project construction period and during occasional periods of backup generator operation. Noise created by construction machinery used during installation will be temporary and localized, and comparable to typical traffic noise from the adjacent roadways. Long-term noise from the backup power generators installed at the telecommunications huts will occur during testing periods (approximately 15 minutes once every two weeks) and during commercial power outages. Based on these considerations, no significant impacts on noise are expected to occur as a result of Project implementation.

Air Quality

The Project will impact air quality during the construction period, and during testing and operation of the backup generators at the telecommunications huts. Fiber optic cable installation will result in fugitive dust emissions because plowing and directional boring disturbs and exposes surface soils. Similarly, there is potential for dust emission during excavation for the foundations of the telecommunications cabinet and huts. Air quality will also be affected by exhaust emission from delivery vehicles, construction equipment, and by testing and operation of the backup power equipment and stand-by generators at the telecommunications huts.

BMPs, such as watering down construction areas and keeping fuel-burning equipment operations to a minimum, will be used to control air emissions and fugitive dust during the construction phase of the Project. Additionally, all construction equipment and vehicles will be maintained in good operating condition to minimize exhaust emissions. The operation of the generator units

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will contribute negligible air emissions due to their infrequent use. In summary, the Project will cause a short-term, minor increase in the use of fossil fuel and associated greenhouse gas (GHG) emissions, and de minimis fugitive dust emissions from ground excavation is expected. With implementation of BMPs, construction of the planned network is not expected to have significant adverse impacts on air quality.

Geology and Soils

The Project will be installed in previously disturbed public ROWs and adjacent private property. The cable will be installed in these locations to, among other considerations, minimize impacts to geologic and soil resources. Both plowing and directional boring techniques result in minor, temporary disruption of the soils. Erosion control measures and BMPs will be implemented before, during, and after construction activities. BMPs, such as restoration of the construction areas, redressing and resettling disturbed soil, grass seeding, and refilling access holes will be followed throughout the Project. Consequently, the Project is not expected to result in significant adverse impacts on geology or soils.

Water Resources

Project construction activities could result in short-term, minor impacts on water resources within the Project area. The Project's fiber route will cross several streams, creeks, and rivers, including the North Platte River (a tributary of the Platte River). In correspondence dated December 14, 2010, Nebraska Department of Natural Resources (NDNR) noted that the proposed route passes very close to many groundwater wells. To minimize potential impact on groundwater, NDNR recommended that wells be located and avoided. NDNR also noted that the Project crosses in and out of many Surface Water Rights. However, because the construction involves burying cable, and the land will be returned to its natural, pre-construction state, NDNR stated that they have no comment regarding potential surface water impact for the Project. NDNR also recommended that the appropriate Floodplain Administrator be contacted regarding floodplain permits.

In a letter dated December 14, 2010, Nebraska Department of Environmental Quality (NDEQ) recommended that NebraskaLink contact applicable agencies for the following permits: Construction Storm Water Permit, Water Quality Permit, National Pollution Discharge Elimination System (NPDES) Permit, Nebraska Floodplain Permit, Army Corps of Engineers Section 404 Clean Water Act Permit, and Department of the Interior (DOI)/Bureau of Land Management (BLM) Permit for Forest Service Transportation and Utility Systems and Facilities on Federal Lands.

BMPs for the Project include erosion control devices, resettling and redressing all disturbed soil to protect water resources, and reseeded grasses and native plants. In a letter dated, February 17, 2010, RVW, NebraskaLink's contractor, reported that directional boring will be used for all wetland and water crossings, and, wherever practicable entry and exit points for the boring operations will be outside of adjacent riparian areas. Some sections of the cable route have been adjusted to avoid wetlands and surface waters. By implementing industry-standard BMPs and

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re-routing of the backbone cable, NebraskaLink will be able to construct the network with little or no impact on water resources in the Project area.

Biological Resources

The Project will result in minor impacts on biological resources. Noise and human activity associated with fiber installation along the ROWs are expected to disturb some wildlife species, but these effects will be minor and temporary, and comparable to typical roadway traffic noises. Some disturbance to the ground surface and vegetation will also occur during construction activities. This disturbance will be largely limited to previously disturbed ROWs.

In a letter dated December 13, 2010, the U.S. Fish and Wildlife Service (USFWS) recommended that the Project avoid removal or disturbance of vegetation during breeding birds' primary nesting season (April 1 to July 15). USFWS also requested that NebraskaLink survey prairie dog towns for presence of burrowing owls to determine if construction would affect prairie dog towns between March and September. If prairie dog towns are being used by burrowing owls, they should be surveyed by a qualified biologist, marked, and avoided until they are abandoned in the fall. The USFWS concluded that "based on the [Project] information... we do not anticipate any impacts to federally listed species, or their critical habitats." NebraskaLink also consulted with the Nebraska Game and Parks Commission (NGPC) regarding biological resources within the Project area. In correspondence dated December 7, 2010, NGPC recommended NebraskaLink work with them to determine if denning habitat for swift fox is located within the proposed Project route. NGPC requested that construction not occur within 230 meters of an active swift fox den during the natal denning period (April 1 – August 31) and within 100 meters of an active den during the rest of the year (September 1 – March 31). NGPC also requested that NebraskaLink directional bore under stream channels inhabited by Blacknose shine, Finescale Dece, and Northern Redbelly Dace species.

NebraskaLink will follow NGPC's recommendations for BMPs for permanent and temporary construction activities along streams to prevent erosion and sediment control in waterways, and implement other BMPs and mitigation measures requested by other natural resource agencies. Construction activities will be avoided during native fish spawning periods from April 1 to July 31 (construction is preferred during low flow periods from August through October). In the unlikely occurrence that construction activities must occur in the stream channel, adequate flow will be maintained throughout the construction period so to not impede the movement of the aquatic species. Care will be taken to avoid the runoff of contaminants into the waterway during construction by using erosion control structures. Areas disturbed by construction will be quickly re-graded and reseeded with a mix of native grasses and forbs. Based on this analysis and following the guidance of the USFWS and NGPC, NebraskaLink will be able to construct the fiber network with no significant adverse impacts on biological resources.

Historic and Cultural Resources

On October 14, 2010, NTIA, on behalf of NebraskaLink, initiated Section 106 consultation with the Nebraska State Historical Society (SHPO) by sending a letter including a project map and description.

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Following the initiation letter, Nebraska Link's cultural research consultants, Quality Services, Inc., contacted the SHPO and began consultation with the SHPO to determine the area of potential effect (APE) for the project. At the request of the SHPO, on November 10, 2010, NebraskaLink conducted an archeological site and inventory record search including a review of properties listed on the National Register of Historic Places (NRHP). The record search identified 189 archeological sites within one mile of the main proposed fiber optic cable routes. Of these, 26 are within 100 feet of the proposed routes and 13 are immediately adjacent to them, or possibly within the project area of potential effect. Additionally, an alternative route was reviewed that identified within 90 archeological sites located within one mile of the proposed alternative route. No National Historic Landmarks were identified within the project area or a one-mile radius.

Following these record searches and after continued consultation between the SHPO, NebraskaLink, and NTIA, a Programmatic Agreement (PA) was developed to ensure Section 106 compliance requirements as project routes have not been finalized.

On May 2, 2011, NebraskaLink, NE State Historic Preservation Office (SHPO), and NTIA entered into a PA defining the procedures for identifying and mitigating potential impacts of the Project on cultural resources. The PA establishes a review protocol for the Project and states that NebraskaLink will seek SHPO concurrence on the final network design, determination, and route selection. The PA further stipulates that NTIA shall ensure that the terms of the PA are executed prior to initiating any phase of construction of the Project. The PA requires the use of Secretary of the Interior qualified personnel to perform the work; defines NTIA's responsibility to authorize construction; and specifies confidentiality, a protocol for inadvertent discovery of archaeological sites or human remains, dispute resolution, and various administrative provisions.

For each project phase, NebraskaLink will identify where ground-disturbing activities are necessary to bury fiber optic cable as part of this Project. NebraskaLink will also have a qualified archaeologist conduct a historic site and cultural resource records search for the entire Project route, if not already done so. NebraskaLink will compare the location of planned construction work to the areas identified by the SHPO, Tribes, its own records search, and identify potential archaeological resources located within 100 feet of the area of potential effect (APE). NebraskaLink will also conduct an ethnographic study of the APE to assess the likelihood of Project ground disturbance coinciding with areas containing archaeological resources eligible for listing in the National Register of Historic Places (NRHP). The study will include plants and fauna of the Project area, migration of the Assiniboine and Sioux Tribes, and consultations with the SHPO and potentially affected Tribes.

During the course of final design, NebraskaLink will develop maps for each phase of the Project, suitable for use in identifying locations and known conditions of archaeological resources along the backbone route. These maps will indicate Project areas confirmed as sensitive (high potential) for presence of cultural resources, NebraskaLink's plans and route selection to avoid impacts to the resources, and areas exempt from further field review due to low potential for cultural resource presence. NebraskaLink will submit the maps of historic sites and potential

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archeological resources with an accompanying report describing the information gathered to the SHPO and affected Tribes for review. Construction on each route will not begin until concurrence on a 'determination of effect' has been issued by the SHPO, with any mitigation requirements established. Mitigation may include reasonable alternatives to avoid destruction, damage, or removal of identified archaeological resources or historic properties.

Under the provisions of the PA, NTIA may, at its discretion and pending compliance with applicable laws and regulations, and concurrence from the SHPO, authorize NebraskaLink to begin construction of any phase of this Project. As part of the post-award monitoring, NebraskaLink is required to submit written documentation to SHPO, NTIA, and the affected Tribes describing the status and manner in which the terms of the PA are being implemented.

Through the Tower Construction Notification System, NTIA provided Project details to 14 tribes interested in the Project's geographical location (Nebraska). Of the 14 tribes notified, two tribes responded to the notification and requested more information about the project. NebraskaLink sent additional information to these tribes, and after reviewing the additional information, the Fort Peck Tribe, requested (and NTIA agreed to produce) an ethnographic report addressing the history and prehistoric area surrounding the propose site.

All construction will be restricted to previously disturbed areas. If any cultural material is discovered during construction, the SHPO will be notified immediately and activity within 100-foot radius of the discovery 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 the consultations and implementation of the PA, the Project is not expected to have significant adverse impacts on historic and cultural resources.

Aesthetic and Visual Resources

The NebraskaLink Project primarily involves installing buried fiber optic cable within previously disturbed ROWs. There will be no cable installed outside of the public highway ROW. 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. The 11 new hub sites will be installed in the ROWs or on adjacent private property acquired by NebraskaLink. No telecommunications huts or cabinets are planned to be located in or near protected areas, state parks, or national parks. The hut exteriors will be compatible with the existing landscape and surrounding buildings. The cabinets will be located and maintained in the public ROW. Accordingly, the preferred alternative is not expected to have a significant adverse impact on aesthetic and visual resources in the Project area.

Land Use

Nearly all fiber optic cable installed by this project will in previously disturbed ROWs. The 11 new hub sites will be built in the ROWs or on private land acquired by NebraskaLink. A small area, generally 16 by 24 feet, will be used to construct the concrete pad foundation and install 12 x 20 x 8 feet prefabricated huts. All excavated areas will be restored to their original condition.

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There will be minimal short-term effects and no long-term impacts to existing use or zoning of affected areas on farming, tourism, commerce, and development due to the Project. Therefore, the Project will have no significant impact on land use.

Infrastructure

The Project will not adversely impact any existing infrastructure and will add new infrastructure in the form of fiber optic cable and additional broadband capacity. The new telecommunications huts will use commercial AC power, and have on-site backup batteries, generators, and fuel tanks. There are no plans to create new roadways, temporary or otherwise, during the Project. 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 Project will improve communications infrastructure and is expected to result in improved transfer of information between CAIs, businesses, and individuals within the communities along the Project route. Overall, the Project will have a positive impact on infrastructure in Nebraska.

Socioeconomic Resources

The Project will provide improved communications infrastructure to residents who do not have access to broadband services in Nebraska. The middle-mile fiber backbone will also benefit these communities by providing broadband capabilities to 101 CAIs. An increase in both short-term and long-term employment opportunities are expected to result from the Project. Overall, the Project will have net positive impacts on socioeconomic resources.

Human Health and Safety

There are several Brownfields along and near the cable route for the Project. However, because the construction will occur in previously disturbed ROWs, it is unlikely that any contamination will be encountered during installation. If contaminated soil is encountered, NebraskaLink halt construction, notify the proper authorities, and seek appropriate technical advice and assistance with the management of the contaminated project segment.

All construction activities will be conducted by qualified, licensed contractors who will follow specific safety regulations, including the Nebraska Department of Roads (DOR) permit requirements and Rural Utility Service (RUS) 515 Contract, as guidance for providing a safe working environment. Workers will be required to meet OSHA standards for worker visibility, equipment signage, and licensing requirements. Work within urban areas shall maintain safe pedestrian routes. With implementation of these protocols, the Project will not generate any significant adverse worker or traffic-related health or safety issues. Further, the new fiber will provide broadband service and directly connect medical facilities. The Project will enhance emergency and medical services and improve human health and safety throughout the Project area.

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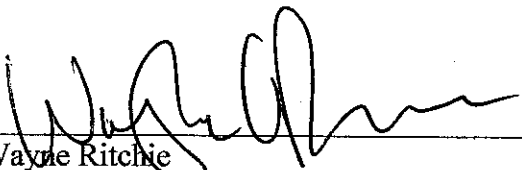
Cumulative Impact

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, the signed PA, 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
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5/17/2011

Date