

**National Telecommunications and Information Agency  
Broadband Technology Opportunity Program  
Finding of No Significant Impact  
South Dakota Network, LLC, Connect South Dakota Project**

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**REVISED – August 2012**

**Summary**

The revised Finding of No Significant Impact (FONSI) is being reissued by NTIA to reflect minor project changes that were documented and analyzed in supplemental Environmental Assessment (EA) documentation. This FONSI is effective as of August 31, 2012, and supersedes the original FONSI issued June 10, 2010.

The South Dakota Network, LLC (SDN), applied to the Broadband Technology Opportunities Program (BTOP) for a grant to use new and existing middle mile telecommunication infrastructure to connect approximately 312 anchor institutions in 93 communities throughout South Dakota. The project is called Connect South Dakota (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to SDN, through BTOP, as part of the American Recovery and Reinvestment Act (ARRA). The funding must be obligated and the Project completed within 3 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 on receiving BTOP grant funding applicants 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 and use it as the basis for finding that the proposed project would 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

An EA for the Project was completed by SDN, in May 2010 and supplemental EA documentation was provided in July 2012 for minor Project changes. NTIA reviewed the original EA and supplemental documentation, determined it is sufficient, and adopted it as part of the development of this revised FONSI, which is effective as of August 31, 2012.

The Project includes:

- Installing underground approximately 140 miles of backbone network and 246 miles of spur routes in existing public rights-of-way,
- Connecting approximately 312 anchor units in 93 communities to the SDN backbone,

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- Using plowing and directional boring to install the fiber line a minimum of 36 inches below the surface of the ground; and,
- Installing 2 prefabricated 12 foot x 20 foot buildings in existing industrial parks and commercial areas. The building would be used for regeneration of transport signals along the fiber routes as well as provide access to specific anchor institutions in the communities.

Based on a review of the analysis in the EA, NTIA has determined that the proposed 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 Environmental Impact Statement (EIS) is not required. The basis for the determination is described in this FONSI.

Additional information and copies of the EA and FONSI are available to all interested persons and the public through the following contact:

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### **Purpose and Need**

The purpose of the Project is to deliver 10 Mbps broadband service to critical anchor institutions within South Dakota. The Project would add backbone capacity to leverage the existing network, and specifically target intercity fiber deployment in areas where fiber has not been placed in the past due to economic infeasibility. It is estimated that approximately 312 community anchor institutions and public safety agencies would be added to the network. This Project would allow SDN to build a scalable platform to deliver higher bandwidth speeds now and into the future to the community anchor institutions across the State.

### **Project Description**

The Project would connect approximately 312 anchor institutions in 93 communities. These institutions would be connected to the existing SDN backbone network by installing approximately 140 miles of backbone network and 246 miles of spur routes. The installation would be located in public rights-of-way along previously disturbed roadway ditches and utility corridors paralleling existing utility lines. The additional sites would be added to the network by

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installing new underground fiber using construction equipment designed for plowing, excavating and directional drilling.

The placement of rural facilities would commence by mid April and extend into late November depending on weather and ground conditions. The operating day would vary but usually would begin an hour after sunrise and ends a couple hours before sunset.

The placement of town/urban facilities can potentially be installed year round but is very dependent on weather conditions and town/urban restrictions. In recent years, a normal project commencement has been in March and extended into late December to early January. The normal operating day would comply with local city ordinances related to noise with the average day starting around 8:00 am and ending around 6:00 or 7:00 pm.

Fiber installation in rural areas would utilize both plowing and directional boring techniques. A typical plowing blade, which is not more than 2-3 inches in width, acts like a knife during plowing causing minimal temporary disruption to the landscape. Directional boring would also be used to minimize the disruption to the landscape. The depth of the cable would be a minimum of 36 inches. The placement of the cable would be approximately in the same vertical location as the existing cable, and should eliminate the need for subsurface testing. Potentially significant environmental or historic sites would be avoided, eliminating the possibility of adverse effects.

Plowing and directional boring techniques would be used to install the cable in town/urban areas and when entering buildings. A typical plowing blade for this application is not more than ½ to 1 inch in width and does minimal temporary disruption to the landscape. Directional boring would also be used to minimize the disruption to the landscape. A small ground level hand hole would be placed at the building. Coming up out of the hand hole would be a 1¼ inch riser that would connect to the LB transition box. A 1¼ inch diameter hole would be drilled through the outside wall of the building where the cable would be feed inside the building. The depth of the cable would be a minimum of 24 inches.

Two 12 foot x 20 foot prefabricated buildings are proposed for the Project. These buildings are planned to be placed within existing industrial parks and commercial areas on the outskirts of the towns of Vermillion and Lake Preston. These buildings would be used for regeneration of transport signals along the fiber routes, as well as provide access to specific anchor institutions in the communities. The prefabricated buildings would have an exposed aggregate exterior that would blend with the existing landscape. The building would be secured to a floating slab requiring minimum excavation and grading to create a level surface.

### **Alternatives**

NTIA requires that an EA include a discussion of the no action alternative. The no action alternative provides a baseline against which the effects of the proposed action may be

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compared. Under the no action alternative, the proposed action would not be implemented and the site-specific impacts associated with the proposed Project would not occur in the Project area. In addition, this EA evaluated the preferred alternative, and eliminated a second alternative that would use aerial fiber installation rather than ground installation. Installing underground cable was chosen as the preferred alternative, and this FONSI addresses the findings related to that alternative.

*Alternative 1 – Underground Cable Placement (preferred alternative).* This construction method allows cable to easily be rerouted in the event an environmental concern is identified. If potential environmental issues are discovered, and when rerouting the proposed fiber optic cable line, mitigation can be accomplished without causing other more serious problems. SDN would consider rerouting the fiber optic cable, and work with the appropriate agencies, to achieve minimal impact to the environment. Additionally, through the use of directional boring, several sensitive environmental issues can be avoided by routing the cable under identified sensitive areas. All existing cable is installed underground, primarily for protection from the elements.

*No Action Alternative.* Under the no action alternative, SDN would not build a fiber cable platform to deliver higher bandwidth speeds now and into the future to the community anchor institutions across the State. All existing property would remain as it presently exists, and no construction or installation of new equipment would occur. The no action alternative served as the baseline for assessing the impacts of the alternatives.

*Alternatives Considered But Not Carried Forward.* SDN considered aerial construction and determined that it would not be a feasible alternative, since the cable is susceptible to severe weather including icing that can break the cable or poles resulting in network outages. In addition, SDN does not currently operate any equipment needed to maintain or repair an overhead cable infrastructure.

### **Findings and Conclusions**

The EA analyzes existing conditions and environmental consequences of the preferred alternative. The resource areas analyzed included Noise, Air Quality, Geology and Soils, Aesthetic and Visual Resources, Water Resources, Biological Resources, Historic and Cultural Resources, Land Use, Infrastructure, Socioeconomic Resources, and Human Health and Safety.

Implementation of the preferred alternative in support of the proposed action is not likely to result in any recognizable environmental impacts and does not involve any unusual risks or impacts to sensitive areas.

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***Noise-***

In implementing the preferred alternative, neither the placement of the buried fiber optic cable nor the operation of the cable to provide data transmission would create any new sources of noise, similar to the no action alternative.

***Air Quality-***

In implementing the preferred alternative, neither the placement of the buried fiber optic cable nor the operation of the cable to provide data transmission would create any new sources of emissions into the air, similar to the no action alternative.

***Geology and Soils-***

In implementing the preferred alternative, the placement of buried fiber optic cables would not alter the soil content or otherwise impact soils. No long term differences between the no action alternative and preferred alternative were found.

***Aesthetic and Visual Resources-***

There are two prefabricated, single story buildings proposed for the project. These buildings are planned to be placed in developed areas on the outskirts of town within industrial parks and commercial areas. The prefabricated buildings have an exposed aggregate exterior that blends with the existing landscape and existing commercial buildings. The buildings would not be located in the vicinity of any protected areas, state parks or national parks. The preferred alternative would not have recognizable impacts to aesthetic and visual resources.

***Water Resources-***

Since the methods for construction included in the preferred alternative are in accordance with SDN's Storm Water Pollution Prevention Plan (SWPPP), the Project would have minimal or no impact to water resources.

SDN has developed and put into place a SWPPP as part of the National Pollution Discharge Elimination System permit for Storm Water Discharges Associated with Construction Activities. SDN would follow all the Best Management Practices set forth in the SWPPP in order to maintain erosion and sediment controls.

SDN applied to the Army Corps of Engineers through the South Dakota Regulatory office and obtained the appropriate permits to implement the preferred alternative. The Army Corps of Engineers determined, concerning requirements under Section 404 of the Clean Water Act, that of the four permit applications submitted only two permits were required. The two required

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permits were subsequently issued. A determination of “no permit required” was issued for the other two crossings.

Based upon the responses obtained from the commenting agencies no significant long term effects were identified. By following the guidance of the commenting agencies, SDN would be able to implement the preferred alternative in a fashion that would have results similar to the no action alternative.

***Biological Resources-***

In accordance with section 7(c) of the Endangered Species Act, as amended, 16 U.S.C. 1531 et seq., SDN obtained, from the U.S. Fish and Wildlife Service, a list of federally Threatened and Endangered Species that may be present within the Project area. The potential species that were determined by the USFWS to be potentially impacted during construction under the preferred alternative are:

1. Whooping Cranes – Should construction occur during spring or fall migration, the potential for disturbances to whooping cranes exists. Disturbance (flushing the birds) stresses them at critical times of the year. There is little that can be done to reduce disturbance besides ceasing construction at sites where the birds have been observed. The whooping cranes normally do not stay in any one area very long during migration.
2. Topeka Shiners - Erosion and sediment runoff could impact national threatened and endangered species such as the Topeka Shiner by burying the shiners eggs and changing the clarity and temperature of the water. The USFWS included recommendations for implementing Best Management Practices to minimize potential impacts to the listed species. These are addressed in the SWPPP that would be used in implementing the preferred alternative.

The USFWS recommends SDN remain vigilant for Whooping Cranes during construction in the spring and fall months when these birds would be migrating. Also, SDN would follow all the Best Management Practices set forth in the SWPPP in order to maintain erosion and sediment controls, and avoid construction activities during the spawning period (May 15 to July 31) of the Topeka Shiner within the Big Sioux, Vermillion and James River watersheds.

Based on the responses obtained from the commenting agencies no significant long term impacts to biological resources were identified relative to implementation of the preferred alternative. SDN, in a letter to NTIA dated June 9, 2010, agrees to abide by all the requirements stated in the U.S. Fish and Wildlife Service letter dated November 23, 2009.

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***Historic and Cultural Resources-***

Based on the results of an Archeological Cultural Resources Record Search and Assessment Report, NTIA determined that the preferred alternative would not have an adverse effect on archaeological sites or historic properties within the Project area.

The report was then forwarded to the South Dakota State Historic Preservation Office (SHPO) for review and comment. The South Dakota SHPO concurred with NTIA's determination that the preferred alternative would not have an adverse effect on archaeological and historical property sites provided SDN adheres to three (3) stipulations. The stipulations include:

1. All eligible and unevaluated sites are avoided by all construction activities including all staging and borrow areas.
2. Provide any additional information concerning the identification of historic properties by other consulting parties, such as the identification of Traditional Cultural Properties.
3. Activities occurring in areas not identified in the Project description would require the submission of additional documentation pursuant to 36 CFR part 800.4.

SDN has agreed to the stipulations and sent a written agreement to NTIA for their records. NTIA also forwarded a copy of the Project description to the Tribal Historical Preservation Office (THPO) and other potentially interested tribal entities for review and comment. No responses from the tribal organizations have been received as of April 28, 2010.

Should the proposed construction inadvertently encounter buried cultural deposits, SDN and its contractor would halt construction in that vicinity and immediately contact the staff at the State Historical Preservation Center in Pierre, SD, to assess the significance of the discovery.

***Land Use***

No potential land use impacts were identified related to implementation of the preferred alternative.

***Infrastructure***

The communications infrastructure would be extended to those locations served by the proposed Project. Other than these communication infrastructure improvements, the preferred alternative would not have any impacts to other infrastructure located within the Project area.

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***Socioeconomic Resources***

The no action alternative would have an adverse impact to the communities involved in this Project, since new and/or improved broadband services would not be provided.

Implementing the preferred alternative would offer new and/or improved broadband access to rural schools and libraries, government facilities and medical facilities. 16 critical anchor institutions are in 13 low income counties in South Dakota. 11 critical anchor institutions serve 9 tribes. In these rural, low income and tribal locations, the new and/or improved bandwidth would have positive impacts on healthcare, education, economic opportunities, and public safety for these populations by helping to attract or retain businesses, providing new and enhanced access to educational resources, providing better public safety services through coordinated actions and training among public safety agencies, providing better access for existing and new health services, and providing required access speeds to permit telecommuting and/or new Internet based businesses. In addition, the Project provides a greater level of funding to the rural areas of South Dakota, and would have a positive impact on the ability of small communities and schools to remain viable.

***Human Health and Safety***

Through enhanced connectivity, the rural health care facilities and their patients would have access to more advanced and specialized services from larger medical institutions without having to travel outside their local communities. This service would greatly improve the speed at which medical images can be transferred and reviewed. These improved capabilities would have a positive impact on the rural areas in which the Project serves. The construction activities associated with the preferred alternative would have minimal to no impact on this resource.

Due to the construction activities taking place in ditches and utility corridors along highways and roads, SDN and its contractors would not be located directly in the path of traffic. This also reduces the impact to vehicles traveling on the highways and roads, since there would be no need to close or re-route traffic lanes. SDN and its contractors would comply with Federal Highway Administration (FHWA) requirements and the Manual on Uniform Traffic Control Devices to promote highway safety and efficiency by providing warning and guidance to all elements of traffic. SDN and its contractors who are exposed either to traffic or to construction equipment within the work area would be required to wear highly-visible safety apparel during both daytime and nighttime activities, that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear". SDN and its contractors would comply with OSHA Regulation 29 CFR 1926, that requires the contractor to have in place an accident prevention program that provides regular inspections of jobsites, materials and equipment. As a result of these actions that would be part



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of the preferred alternative, health and safety impacts to the workers would be avoided to the extend possible.

Since there are no known Brownfield sites located within the proposed Project area, the preferred alternative would have no impacts to human health and safety from this source.

**Cumulative Impacts**

Although cumulative impacts were not specifically addressed in the individual resource impact analysis, impact reviews by state and federal agencies indicated that any negative impacts associated with the preferred alternative would be minimal and temporary in nature, and cumulative impacts would be no greater than those that would occur under the no action alternative.

The enhanced connectivity in underserved and unserved rural areas would have a major positive impact to medical services, education and local economies over the long-term.

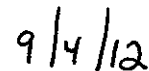
**Decision**

Based on the above analysis, NTIA concludes that with the BMPs and environmental protection measures proposed for implementing the Project using the preferred alternative, the construction and operation of the Project would 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 significantly affecting the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued:



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Date