Environmental Assessment

Piney Woods Fiber Project #7523

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EXECUTIVE SUMMARY

Nexus Systems, Inc. submitted an application to the U.S. Department of Commerce to provide comprehensive community infrastructure to communities throughout the "Piney Hills" Parishes of Louisiana, including Rapides, Grant, Winn, Jackson, and Lincoln. The USDA has designated these five parishes as "Persistent Poverty Parishes" in need of economic development and infrastructure investment. The NTIA awarded a grant to Nexus Systems, Inc. in July 2010 for implementation of the Piney Woods Fiber Project 7523 (Project).

The proposed Project is designed to meet the specific needs of the community end user over a shared fiber optic network that will be installed as part of this Project. The proposed system consists of 100-megabit (MBit) fiber over a wide area network (WAN), 100 MBit internet, and 1 gigabit (GBit) over a WAN to service community anchor institutions. The network will also include a 10 MBit carrier lease to businesses, a 1 GBit carrier lease, and 250 MBit carrier internet to third party service providers. This system is designed to create a public network, public/private network, and a private network.

The infrastructure necessary to support the network system described above consists of approximately 121 miles of fiber optic cable that will be installed in 1.25" conduit located within existing roadway ROW. The proposed Project is intended to close the broadband gap by providing high-speed connection to community anchor institutions, businesses, and residences. The number of expected subscribers projected because of this Project includes approximately 110 community anchor institutions, 1,800 business, and 55,500 households. The 110 community anchor institutions include 67 public schools, 18 public libraries, 13 medical service facilities, two two-year colleges, 7 public safety entities, and three four-year universities.

The Environmental Assessment (EA) for this Project is prepared in accordance with NEPA, as amended, the NTIA and USDA RUS guidelines and procedures, the BTOP *Environmental Assessment (EA) Guidance for BTOP Grantees* (August 2010), and the imposed environmental Special Award Conditions (SAC) as outlined in the grantee award. This EA completes a study of alternatives, the associated environmental impacts, and determination of meeting the need for and purpose of the Project. These analyses included evaluation of an Aerial, Wireless, Buried, and No Action Alternative with a determination of a Preferred Alternative.

- Aerial Alternative: The Aerial Alternative considers complete aerial installation of the fiber line to provide connectivity between the system end points to meet the need for and purpose of the proposed Project.

- Wireless Alternative: The Wireless Alternative considers the implementation of non-fiber based technologies to address the need for and purpose of the proposed Project.
- The Buried Alternative proposes a complete buried fiber route with the same scope of improvements, termination points, and end users. The Buried Alternative utilizes different roadway ROW routes for installation of the fiber conduit in order to construct a complete buried fiber route.
- No Action Alternative: The No Action Alternative considers the impacts of not completing the proposed Project.

The Aerial and Wireless Alternatives have significantly greater impacts to the environment and have lengthy construction/build out time lines in order to meet end user requirements and they do not meet the need for and purpose of the Project. The No Action Alternative fails to meet the need for and purpose of the Project.

This EA analyzes the existing conditions and the environmental consequences of the Preferred alternative and the No Action alternative. The areas reviewed include: Noise, Air Quality, Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use, Infrastructure, Socioeconomic Resources and Health and Human Safety. Cumulative impacts were also evaluated.

Based on the analysis completed in this EA, the Preferred Alternative will not have significant adverse impacts to the human or natural environment and does not have a cumulative impact to the human or natural environment. Additionally, the Preferred Alternative does meet the need for and purpose of the proposed Project helping to bridge the digital divide, improve access to education and healthcare services, and boost economic development for communities that have limited or no access to broadband.

The No Action Alternative would not result in an immediate change in current land use or land cover within the Project area and fails to meet the need and purpose of the proposed Project. The No Action Alternative would have no impact to the existing human or natural environment and would inherently cause the underserved and unserved areas increased difficulty to grow and advance in productivity and economic competitiveness as areas that are provided expanding broadband technology continue to grow and advance.