



Vermont Telecommunications Authority

Environmental Assessment (EA)

For

Vermont Telecommunications Authority

Vermont Fiber Link

***Broadband Technology Opportunities Program (BTOP)
Grant #4245***

&

***National Telecommunications &
Information Administration
(NTIA)***

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Executive Summary

Vermont Telecommunications Authority (VTA) of Montpelier, VT, an instrumentality of the State of Vermont, and public benefit corporation, has been awarded grant funding from the National Telecommunications and Information Administration (NTIA) through the Broadband Technology Opportunities Program to place new and utilize existing middle mile telecommunication facilities to connect approximately 342 anchor institutions in 90 communities throughout the state of Vermont and in New Hampshire & Massachusetts – Vermont Fiber Link. When complete the project will connect the proposed anchor institutions with a state-of-the-art redundant fiber network at speeds from 10Mbps to 1Gbps and more. This project is needed in the proposed areas since fiber based facilities are not available to the proposed anchor institutions.

This network is being developed and will be owned and operated by Sovernet Fiber Corporation (SFC), the sub-grantee to the NTIA's award to the VTA. The network will enable SFC to provide large capacity data transport and broadband services.

The network is a hybrid of 96% aerial and 4% buried fiber cable that provides the most economical way to build and later maintain the large network. The alternatives included using exclusively buried or aerial fiber or using wireless. Using aerial for all segments of the network is not acceptable in some areas for aesthetic reasons and because some existing utilities are already buried. To construct an entire network using buried cable also would not work, as some areas have shallow bedrock, wetlands and historic sites. It would be very difficult, costly and time consuming to place the whole network underground. Wireless would be difficult as the Vermont terrain, includes valleys, hills and mountains. Wireless also could not provide capacity sufficient for the middle mile needs of the proposed network. VTA does not have access to licensed spectrum for the network, and the no-action alternative does not meet the needs for the project.

The current working estimate consists of placing approximately 773 new route miles of backbone and spur-route fiber to connect anchor institutions. The intent is to reroute the fiber network around environmentally sensitive areas to avoid impacts. Fiber re-routes or changes resulting from environmental and project factors may increase the construction necessary to a total of 867 route miles. The construction is proposed to take place in existing road rights of way in rural corridors and existing utility easements and boulevards in town and urban corridors. The proposed new construction routes for the Vermont Fiber Link will have limited or no potential impacts to environmental, historical and cultural resources.

VTA has contacted interested environmental and governmental agencies, and has consulted with the NTIA NEPA coordinator and staff archaeologist for overall project guidance. Each agency has been provided with a description and maps of the proposed project that show the area that could be affected by the proposed routing of new fiber optic cable in the state or district.

To meet the directives of the Broadband Technology Opportunities Program and expand service to Community Anchor Institutions (CAIs), it has become necessary to augment limited fiber cable in some areas with larger capacity cable to accommodate the additional CAI fiber connections and Broadband requirements. Each agency was given the opportunity to comment on the proposed project and its potential effect on the environment. These agencies are as follows:

- Historical Preservation Office – Federal Governing Body (NTIA), Tribal, and State (Vermont, New Hampshire, Massachusetts)
- Tribe Consultation Letters
- US Fish and Wildlife Service, New England Office
- Vermont Agency of Natural Resources
 - Vermont Department of Fish & Wildlife
 - Vermont Department of Environmental Conservation
- New Hampshire Department of Environmental Services
- Massachusetts Department of Environmental Protection
- Massachusetts Division of Fisheries & Wildlife

These agencies have subsequently had the opportunity to review the project and submit responses to the VTA.

After contacting the commenting agencies and reviewing the proposed construction routes, no significant impacts to the existing environment are anticipated.

1 Chapter 1 – Purpose and Need

The purpose of the Vermont Fiber Link project is to provide and improve middle mile broadband service connections through the mostly rural geographic landscape of Vermont. In addition to enabling connectivity for other last mile networks, the proposed SFC middle mile fiber backbone project includes direct connections to approximately 342 strategic institutions and locations including: libraries and schools, community colleges and other post-graduate institutions, public safety facilities, government buildings, healthcare providers and clinics. The project will construct 773 miles of new “middle mile” infrastructure through more than 90 towns, including 79,211 households, and 13,144 businesses which are all priority objectives for the BTOP stimulus program. This project will encompass mostly rural communities, organizations and residents who currently lack access to broadband services in Vermont and some in parts of New Hampshire & Massachusetts.

An additional 17 miles of existing fiber infrastructure will be leased from ION Newco Corporation currently being constructed using BTOP Round 1 ARRA funds. This fiber lease provides synergies between the projects through cost reduction and enables network path diversity that will improve the reliability of services provided to institutions and other customers, and in particular in support of critical emergency and priority communications