



# Report

## **UW-Madison DoIT MUFN Environmental Assessment**

**Prepared for: U.S. Department of Commerce (DOC)  
National Telecommunications and Information Administration  
1401 Constitution Avenue, N.W., Washington, DC 20230**

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- Appendix H: United States Army Corp of Engineers Correspondence

## Executive Summary

The Metropolitan Unified Fiber Network (MUFN) has been awarded grant funding from the National Telecommunications and Information Administration (NTIA) through the Broadband Technology Opportunities Program (BTOP) to install new dark fiber optic or wire line telecommunications infrastructure in the Cities of Madison, Middleton, Monona, Fitchburg, the Village of Shorewood Hills, and the townships of Madison, Middleton, Burke and Blooming Grove. The MUFN public/private partnership includes 3 hospitals, a private medical foundation, 2 municipal governments, 3 school districts, Dane County offices, a public library, a public university, a community college, a commercial entity and over two dozen community support organizations. MUFN is considered a middle mile or backbone project that provides crucial high-speed telecommunications infrastructure for multiple anchor institutions (e.g., education, health care, public safety facilities, and library) as well as historically underserved areas of the greater Madison Metropolitan community. This project is needed as fiber based facilities are not currently available to a majority of anchor institutions along the route.

MUFN has selected a Combined Construction Approach (existing aerial poles, existing underground conduit, and additional new underground conduit installed via HDD methods) as the least disruptive to the local communities and environment. The other alternatives (new aerial installation, trenching, boring all new conduit) pose significant regulatory challenges, cause greater environmental, historical and cultural impacts, increase impacts to visual resources, and increase overall costs for the proposed project. The no-action alternative does not meet the needs of the municipal government and public sector.

The project is a 110.05 mile fiber-optic network with 108.25 miles of underground terrestrial fiber and 1.8 miles of aerial fiber to be installed on existing poles. Of the 108.25 miles of underground terrestrial fiber, 31.25 miles represents leased fiber while 21.75 miles of fiber is previously installed in City of Madison 3" HDPE conduit. The remaining amount (55.25 miles), involves actual ground disturbance using grant funds. Specifically, 20 miles of 3" HDPE conduit is previously installed such that only fiber will be pulled into this conduit. The remaining 35.25 miles consists of installing 12.25 miles of 3" HDPE conduit (via directional boring) and fiber in the 3" conduit for network backbone purposes while 23 miles of 1.25" HDPE conduit (via directional boring) and fiber in the 1.25" conduit will be installed for laterals to community anchor institutions.

The construction will occur in the City of Madison, City of Middleton, City of Monona, Dane County, Village of Shorewood Hills, Town of Madison, Town of Middleton municipal right-of-way, and State of Wisconsin Department of Transportation right-of-way, within 3 feet of existing concrete curbs or edge of roadway. Aerial installation will utilize a network of existing overhead utility poles. Bonestroo on behalf of the MUFN has contacted interested environmental and governmental agencies for input on overall project construction and routing. Each agency was provided with a description and general location of the proposed project and given the opportunity to comment on the project and its potential effect on the environment and other resources. The agencies contacted are as follows:

1. State Historic Preservation Officers (SHPO) – Attachment F
2. Tribal Offices – Attachment G

3. U.S. Fish & Wildlife Services (USFWS) – Attachment A
4. United States Army corp. communications – Attachment H
5. City of Madison Fire Department—verbal communication
6. Dane County Emergency Management—verbal communication
7. Dane County Land Conservation Department—verbal communication
8. Wisconsin Department of Natural Resources (WDNR) via web-site reviews
9. Wisconsin Department of Transportation (WisDOT) via web-site reviews

The proposed new construction routes for the MUFN have potential short-term impacts to environmental, noise, historical, and cultural resources but the possible impacts have been reduced by careful route selection.