

ENVIRONMENTAL ASSESSMENT

Mississippi Delta Broadband Infrastructure Project
Broadband Technology Opportunities Program
Award Number: NT10BIX5570104

Prepared for:
U.S. Department of Commerce
National Telecommunications and Information Administration
1401 Constitution Avenue NW
Washington, DC 20230

On behalf of:
Contact Network, Inc. d/b/a InLine
600 Lakeshore Parkway
Mobile, AL 35209

By:
Wilbur Smith Associates
2835 Brandywine Road, Suite 400
Atlanta, GA 30341



March 2011

EXECUTIVE SUMMARY

Introduction

This Environmental Assessment (EA) was prepared on behalf of Contact Network, Inc. (d/b/a InLine), recipient of a Broadband Technology Opportunities Program (BTOP) grant award, for submittal to the US Department of Commerce National Telecommunications Information Administration (NTIA). Contact Network, Inc. is proposing the Mississippi Delta Broadband Infrastructure Project, which would construct a middle mile fiber optic network throughout the Mississippi delta region. The purpose of this EA is to document the environmental benefits and consequences of the proposed project for use in NTIA's decision making process to determine whether or not the project would significantly affect the environment. The EA was prepared pursuant to NEPA; the Council on Environmental Quality Regulations implementing NEPA (40 CFR 1500-1508); and the NTIA/BTOP guidance manual, *Environmental Assessment Guidance for BTOP Award Recipients* (August 2010).

The Mississippi Delta Broadband Infrastructure Project encompasses 12 counties in Mississippi. Construction of new fiber optic broadband infrastructure is proposed in Bolivar, Carroll, Coahoma, Leflore, Montgomery, Sunflower, Tallahatchie, Tunica, Washington, and Yazoo Counties. Leasing of existing commercial fiber is proposed in Grenada and Humphreys Counties.

Purpose and Need

The Mississippi Delta Broadband Infrastructure Project would provide the middle mile fiber infrastructure necessary to connect core community institutions and last mile service providers in the region to the Internet backbone. The purposes of the Mississippi Delta Broadband Infrastructure Project are to:

- Enable up to 4 Gbps broadband backhaul service, with 1 Gbps service available to local community anchor institutions.
- Connect 16 public school districts comprising the Delta Area Association for the Improvement of Schools (DAAIS), including 110 K-12 schools, to facilitate distance learning, video conferencing, and improved school security.
- Connect additional community anchor institutions, including four government facilities, five community colleges, and ten healthcare providers, with the potential to serve an additional 145 anchor institutions.
- Facilitate more affordable and accessible broadband service for approximately 108,000 households and 17,000 businesses by enabling local Internet service providers to use the project's open network.
- Link hospitals via major fiber routes along U.S. Highways 51, 49, 49N, and 82 to enable telemedicine and more effective sharing of electronic medical records.
- Deliver intelligent transportation system applications on priority state roadways to relieve congestion and improve public safety.

Proposed Action and Alternatives

The proposed Mississippi Delta Broadband Infrastructure Project consists of installing approximately 420 miles of new fiber optic broadband infrastructure (375 miles of middle mile and 45 miles of last mile), either by lashing aerial cable to existing utility poles or burying underground cable in existing transportation or utility rights of way. Approximately 175 miles of existing commercial fiber would also be leased. Leasing existing fiber does not involve any

construction, ground disturbance, or other type of physical action or handling of the fiber. The existing fiber would be accessed and activated remotely from a network facility.

The proposed network would include 12 Points of Interconnection (housed in prefabricated concrete telecommunication huts) throughout the project area communities, as well as multiple splice points and anchor institution connections. The complete fiber network will provide broadband connectivity at more than 164 connection points.

The primary components that characterize the proposed action and that would differentiate potential build alternatives are the fiber route, installation method, and number and location of necessary structures and connections. The EA alternative development and evaluation process allowed for refinement and revision of the preferred route, installation method, location of structures, etc., if necessary for avoidance of any impacts or constraints that are identified as new information and data was collected. This flexibility streamlines the project delivery process by eliminating the need to evaluate the impacts of multiple build alternatives. Thus, one build alternative, the proposed action/preferred alternative, and a no build/no action alternative were carried forward and analyzed in detail in the EA. Other build alternatives were evaluated but dismissed from further detailed analysis, including all aerial deployment, all burial deployment, and wireless deployment.

The proposed action alternative analyzed and documented in this EA includes additional fiber route miles than were originally proposed in the BTOP grant application (595-mile network versus 550-mile network), as well as additional potential community anchor institutions and last mile connections. The intent was to secure environmental clearance for as large of a network as possible (that was still reasonable and feasible), so that as much of the underserved area as possible could be served should the project come in under budget and allow for additional fiber build out in the communities.

Early project descriptions and initial agency correspondence included preliminary estimates of fiber mileages, installation methods, and hut locations. As the project was developed and modified as described above or as necessary as additional data was collected and constraints were identified, the preliminary descriptions were not changed in subsequent correspondence for consistency. However, GIS shape files of the refined and expanded project were provided to the agencies, and the project reviewed by the agencies is the project analyzed in this EA.

Potential Impacts

The EA identified and documented potential adverse impacts to the environment as a result of the proposed action. The impacts are primarily minor, temporary construction-related impacts that would be minimized with standard best management practices. With the appropriate avoidance, minimization, and mitigation measures that have been identified (as described below), the proposed action would not result in any significant adverse impacts.

Environmental Commitments

Contact Network, Inc. will ensure that the following commitments are implemented and coordinated with consulting parties as appropriate.

Cultural Resources

Two of the alternate telecommunication hut locations, one each in Leflore and Washington counties, will not be used. The 26 eligible, potentially eligible, or unknown eligibility archaeology sites identified in the project corridor will be avoided. Cable will be installed aerially on existing utility poles in the vicinity of the sites, with no ground disturbance within a minimum 100-foot buffer around the sites. If the scope of the project changes, MDAH/SHPO will be consulted prior to beginning any work.

If earth disturbing activities during project construction uncover cultural materials (i.e. structural remains, historic artifacts, or prehistoric artifacts), all work shall cease and interested Tribes, the SHPO, and NTIA shall be notified immediately. Such construction activities may then only continue with the written approval of NTIA. If earth disturbing activities during any area of the project uncover human remains, all work shall cease immediately in accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and relevant state statutes. The area around the discovery shall be secured and the relevant law enforcement personnel (e.g. local police or County Coroner) and NTIA shall be notified immediately. Such construction activities may then only continue with the written approval of NTIA.

Protected Species

Should any bald eagles or their nests be observed during implementation of the project, USFWS and MDWF&P would be notified, and best management practices would be used, such as avoiding construction during nesting season.

Erosion and sedimentation control BMPs will be implemented and monitored during construction, to minimize potential impacts to aquatic habitat.

Human Health and Safety

Construction contracts will include provisions for the protection of health and safety of construction personnel and the public. InLine and its contractors will comply with OSHA safety and health regulations for construction (29 CFR 1926). Workers will be qualified and adequately trained in proper equipment operation; proper personal protective equipment (PPE); hazardous materials identification and proper handling; worker safety and visibility; traffic awareness and driver safety; accident prevention; emergency procedures; and basic first aid and first responder techniques. Safety rules will be reviewed regularly with all workers.

Permitting

Coordination with the USACE Vicksburg District will occur in order to obtain Department of the Army Section 10 and/or Section 404 permit(s) as required. The permit application process will be conducted during the final design phase of the project once construction plans are complete and final impacts to jurisdictional waters are determined. The Corps will make the determination on what types of permit(s) are needed. Mitigation would be provided in one or more of the study area river basins in a mitigation bank designated by the Corps. Specific mitigation ratios and mitigation sites will be determined during the permitting process.

Coordination with MDEQ will occur in order to obtain Section 401 Water Quality certification and Section 402 NPDES permit(s) as required. Sedimentation control BMPs will be implemented and monitored during construction.

Table of Contents

1	Purpose and Need	1
1.1	Introduction.....	1
1.2	Project Background	1
1.2.1	Study Area	1
1.2.2	Broadband Networks.....	2
1.2.3	Project Partners.....	2
1.3	Need for the Proposed Action.....	3
1.4	Purpose of the Proposed Action.....	4
2	Description of Proposed Action and Alternatives	5
2.1	Proposed Action	5
2.1.1	Fiber Route	6
2.1.2	Installation Method	6
2.1.3	Telecommunication Huts	8
2.1.4	Descriptions of Proposed Action by County.....	9
2.1.5	Community Anchor Institutions	11
2.2	No Action Alternative	12
2.3	Alternatives Considered but Eliminated from Further Discussion	12
2.3.1	Fully Aerial or Fully Burial Installation	12
2.3.2	Alternative Technology – Wireless Broadband	12
3	Description of the Affected Environment	12
3.1	Noise.....	12
3.2	Air Quality.....	12
3.3	Geology and Soils	13
3.4	Water Resources	13
3.4.1	Surface Water.....	13
3.4.2	Groundwater	15
3.4.3	Coastal Zone	15
3.4.4	Floodplains	15
3.4.5	Wetlands.....	15
3.4.6	Wild and Scenic Rivers.....	16
3.5	Biological Resources	16
3.5.1	Wildlife & Vegetation	16
3.5.2	Protected Species	17
3.6	Historical and Cultural Resources.....	19
3.6.1	Archeological Resources.....	19
3.6.2	Architectural Resources.....	20
3.6.3	Native American Resources.....	20
3.7	Aesthetic and Visual Resources.....	20
3.8	Land Use	21
3.9	Infrastructure	21
3.10	Socioeconomic Resources	22
3.11	Human Health and Safety.....	24
3.12	Climate, Greenhouse Gases, and Global Warming	25
4	Analysis of Environmental Impacts	26
4.1	Noise.....	26
4.2	Air Quality.....	26
4.3	Geology and Soils	27

4.4	Water Resources	27
4.4.1	Surface Water	27
4.4.2	Ground Water	29
4.4.3	Coastal Zone	29
4.4.4	Floodplains	29
4.4.5	Wetlands.....	29
4.4.6	Wild and Scenic Rivers.....	30
4.5	Biological Resources	31
4.5.1	Wildlife and Vegetation.....	31
4.5.2	Threatened and Endangered Species	31
4.5.3	Other Protected Species and Species of Special Concern	33
4.6	Historical and Cultural Resources.....	33
4.6.1	Archaeological Resources.....	33
4.6.2	Architectural Resources.....	33
4.6.3	Native American Resources.....	34
4.7	Aesthetic and Visual Resources.....	34
4.8	Land Use	35
4.9	Infrastructure	35
4.10	Socioeconomic Resources	35
4.11	Human Health and Safety.....	36
4.12	Climate, Greenhouse Gases, and Global Warming	37
4.13	Cumulative Impacts	37
5	Applicable Environmental Permits and Regulatory Requirements.....	38
5.1	Jurisdictional Waters	38
6	Agencies and Persons Consulted.....	39
6.1	Early Coordination	39
6.2	Section 7 Consultation.....	39
6.3	Section 106 Consultation.....	40
7	Figures	41
	Project Location Map	42
	County-Specific Maps	43
	Bolivar County	43
	Carroll County.....	44
	Coahoma County	45
	Leflore County	46
	Montgomery County	47
	Sunflower County	48
	Tallahatchie County.....	49
	Tunica County.....	50
	Washington County	51
	Yazoo County.....	52
	Water Resources	53
	Ecoregions	54
	Farmland.....	55
8	References.....	56

List of Tables

Table 1: Farmland Classification by County.....	14
Table 2: Major Rivers.....	14
Table 3: Previously Recorded Architectural Resources in the APE	20
Table 4: Population Growth by County	22
Table 5: Minority and Hispanic/Latino Population by County	23
Table 6: Median Income and Poverty Status by County	24
Table 7: Hazardous Waste Sites by County	25
Table 8: River and Stream Crossings	28
Table 9: Percentage of Hydric Soils and Potential Areas for Wetland Impacts.....	30

List of Appendices

- Appendix A: Correspondence
- Appendix B: Detailed Data Tables