

FINAL

ENVIRONMENTAL ASSESSMENT

OF THE PROPOSED INSTALLATION AND OPERATION OF A

FIBER RING

NORTHEASTERN OHIO AND NORTHWESTERN PENNSYLVANIA



PREPARED FOR:

ZITO MEDIA COMMUNICATIONS II, LLC

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5 SEPTEMBER 2010

ENVIRONMENTAL ASSESSMENT SIGNATURE PAGE

FEDERAL LEAD AGENCY: National Telecommunications and Information Administration (NTIA)

COOPERATING AGENCIES: None

TITLE OF PROPOSED ACTION: Fiber Ring Project

AFFECTED JURISDICTION: Northeastern Ohio and Northwestern Pennsylvania

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DOCUMENT DESIGNATION: Final Environmental Assessment (Final EA)

ABSTRACT: This Environmental Assessment (EA) evaluates the Proposed Action of Zito Media Communications II, LLC (Zito Media) to install and operate an approximately 475-mile long fiber (telecommunications) ring in northeastern Ohio and northwestern Pennsylvania. The Proposed Action is funded, in part, by a grant to Zito Media under the American Recovery and Reinvestment Act (ARRA) of 2009 from the National Telecommunications and Information Administration (NTIA), a Federal agency. This EA has been prepared by Zito Media for submittal to the NTIA for adoption and in support of the NTIA's decision-making concerning the ARRA funding of this Proposed Action. This EA discusses two alternatives: the Preferred Action Alternative and the No Action Alternative. This EA evaluates possible effects to 11 technical resource areas: noise, air quality, geology and soils, water resources, biological resources, historic and cultural resources, aesthetic and visual resources, land use, infrastructure, socioeconomic resources, and human health and safety. The EA concludes there would be no significant impact, either individually or cumulatively, to the local environment or quality of life associated with implementing the Preferred Action Alternative, provided the environmental management measures, incorporated as part of the Proposed Action and specified in this EA, are implemented.

EXECUTIVE SUMMARY

This Environmental Assessment (EA) has been prepared to identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic impacts associated with Zito Media Communications II, LLC (Zito Media) proposed installation and operation of an approximately 475-mile long fiber (telecommunications) ring throughout northeastern Ohio and northwestern Pennsylvania. The Proposed Action is funded, in part, by a grant to Zito Media under the American Recovery and Reinvestment Act (ARRA) of 2009 from the National Telecommunications and Information Administration (NTIA). The NTIA is a branch of the Department of Commerce (DOC) and is a Federal agency. This EA has been prepared by Zito Media for submittal to the NTIA for adoption and in support of the NTIA's Federal decision-making concerning the ARRA-funding of this Proposed Action. As the NTIA is the grantor to Zito Media, the awarding of the ARRA-funded grant is a Federal Action.

As this is a Federal Action, preparation of this EA is required in accordance with the National Environmental Policy Act of 1969 ([NEPA]; 42 United States Code [USC] 4321 *et seq.*), the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the DOC, Economic Development Administration, NEPA Implementing Regulations (48 FR 14734). The EA has been prepared in accordance with the requirements of the *EA Guidance for Broadband Technology Opportunities Program (BTOP, an NTIA agency) Grantees* (NTIA 2010). For this Proposed Action, Zito Media is the NTIA BTOP Grantee, and the proposed installer and operator of the Proposed Action.

PROPOSED ACTION

The Proposed Action is to install and operate an approximately 475-mile long fiber ring in northeastern Ohio and northwestern Pennsylvania. Zito Media would implement the Proposed Action. In accordance with the ARRA, Zito Media established the size and location of this fiber ring based on: the number of un-served and under-served areas currently in need of low-cost, high-speed broadband services in northeastern Ohio and northwestern Pennsylvania, notably including critical community "anchor" institutions, including schools, government facilities, libraries, community colleges, and healthcare facilities; the availability of existing utility right-of-way (ROW) infrastructure (i.e., existing utility poles and underground conduit with sufficient capacity); the amount of Federal (i.e., ARRA) funding available; and the ability to interconnect with Zito Media's existing fiber infrastructure in northeastern Ohio.

The Proposed Action would involve installing fiber on existing utility poles, within existing below ground conduits, on up to 55 new utility poles, and within up to four (4) new below ground conduits (i.e., via trenching). *In total, less than 0.5 acre of earth disturbance is proposed.* All earth disturbance would occur during construction, and all work would occur within existing, maintained utility ROWs. Up to approximately 55 new poles (installed by the utility owner) and up to approximately 0.93 mile of new trench (installed by Zito Media) would be required in specific instances where existing utility poles are overloaded or utility poles or conduit are not available. In three of the four proposed locations, trenching would occur between existing utility poles. In the fourth proposed trenching location, trenching would occur within an existing utility ROW within the Fairview Business Park in Pennsylvania. No trenching is proposed in Ohio. No additional long-term maintenance of the existing utility ROW would be required.

Hub sites would be sited in each community served, and would provide a location for system hardware in each community. Hub sites would be located on the premises of fiber ring customers, as has been done with previous Zito Media fiber ring construction projects. Wherever possible, hub sites would be located within critical community anchor institutions. Electronic hub equipment would be located near the customer's information technology equipment, and would require the space equivalent to a large filing cabinet. No interior or exterior structure renovation would be required; the hub equipment would be connected to the ring via overhead lines similar to other existing electric and telephone lines, or would be placed within existing conduit. The hub sites would be selected based on customers with facilities that have 24-hour access and an existing, maintained backup generator for power during outages. The infrastructure (i.e., hub equipment and fiber lines) would be operational for at least 30 years, and would be regularly maintained by Zito Media.

PURPOSE AND NEED

The **purpose** of the Proposed Action is to provide areas of northeastern Ohio and northwestern Pennsylvania that have high unemployment, high poverty rates, below average family incomes, and low population densities with high-speed, efficient, low-cost broadband infrastructure and service. The Proposed Action would result in the implementation and operation of a fiber ring in these areas that provides sufficient, requisite, high-speed, electronic data and voice communication services, notably to community anchor institutions. Businesses and residences also would be served. This Proposed Action, funded by the ARRA, is part of an overall, national initiative to improve the connectivity of rural, economically challenged areas. The primary goals of the program are to provide improved communications connectivity to critical community anchor institutions, as well as to assist and enable improved economic growth and development of such areas, in part fostered by increased communications capability.

This fiber ring is **needed** to handle the increasing demand for broadband services by community anchor institutions, residents, and businesses of northeastern Ohio and northwestern Pennsylvania. These include areas most in need of high-speed, efficient, low-cost broadband infrastructure. Under current conditions, many of these areas lack sufficient communications connectivity (including voice and information technology), operate on dial-up networks, or lack these utilities entirely. These communication infrastructure shortfalls limit economic growth and development of currently rural, generally impoverished areas.

ALTERNATIVES

After identifying the above capability shortfall of the region, Zito Media identified those portions of, and locations within, the region most in need of improved broadband services. Through a comprehensive and detailed screening process, Zito Media narrowed the number of reasonable alternatives based on more refined analyses of: locations of critical community anchor institutions; discussions with local government officials; local economic conditions; current utility infrastructure availability; anticipated customer base and users; potential for future economic growth within this region; the ability to interconnect with existing fiber infrastructure; the requirement to provide a complete, redundant ring within the region to maximize efficiency and operability; and the amount of ARRA funding available. The value of this project is \$7.6 million.

Through this additional analysis, Zito Media identified a single, suitable alternative that best met all of the screening criteria. This alternative provides the broadest possible coverage to the widest geographic array of community anchor institutions and other potential users within the region, within reasonable initial capital costs (i.e., within the scope of available ARRA funding). This alternative consists of installing and operating approximately 475 miles of a fiber ring throughout northeastern Ohio and northwestern Pennsylvania along the route shown in **Figures 1 and 2**. This alternative is considered within this EA as the Preferred Action Alternative.

This EA examines in-depth two alternatives, the Preferred Action Alternative and the No Action Alternative, defined as follows:

- **Preferred Action Alternative:** Install the approximately 475 miles of fiber in a ring that runs through northeastern Ohio and northwestern Pennsylvania (see **Figures 1 and 2**). This ring would provide additional broadband services to the maximum number of community anchor institutions, residents, and businesses of this region in need of these services, while minimizing capital investment costs and meeting the other screening criteria. The fiber ring would be installed and operated by Zito Media.
- **No Action Alternative:** Do not implement the Proposed Action as identified and do not improve communications in the region. The level of service currently provided to the communities, residents, and businesses of northeastern Ohio and northwestern Pennsylvania would not improve.

The Preferred Action Alternative effectively provides the best broadband solution for the region, reaching the most facilities and citizens in need of such services. The No Action Alternative would not achieve the purpose of and need for the Proposed Action. However, the No Action Alternative is assessed in this EA to provide a comparative baseline analysis, as required under the CEQ Regulations (40 CFR 1502.14). The No Action Alternative reflects the *status quo* and serves as a benchmark against which the effects of the Proposed Action can be evaluated.

Other alternatives considered but dismissed by Zito Media are discussed in **Section 2.3.3**. These include a *Wireless Alternative*, an *All-Underground Alternative*, an *All-Aerial Alternative*, and an *Other Route Alternative*. These alternatives would result in a less reliable system, higher costs, lower bandwidth availability to customers, and/or increased adverse environmental effects. For the reasons described in this EA, these alternatives were eliminated from further consideration early in the planning process.

AFFECTED ENVIRONMENT

The Preferred Action Alternative includes the installation of an operationally required, redundant ring around northeastern Ohio and northwestern Pennsylvania. The project study area, or Region of Influence (ROI), includes approximately 5,000 square miles. The length of the proposed ring alignment is approximately 475 miles, and includes the counties of Trumbull, Geauga, Lake, and Ashtabula in Ohio and Crawford, Erie, Mercer, Venango, Clarion, and Jefferson in Pennsylvania. The proposed project area includes existing utility ROWs and limited work within proposed hub sites. These areas have generally been disturbed by past road and utility installation and consist of maintained grasslands and disturbed vegetation communities. Various surface waters, including wetlands, traverse the Preferred Action Alternative alignment. Please refer to **Section 3** of this EA for more information.

ENVIRONMENTAL IMPACTS

Both considered alternatives are evaluated in this EA to determine their potential direct or indirect effect(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action's ROI. Technical areas evaluated include:

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| 1. <i>Noise</i> | 7. <i>Aesthetic and Visual Resources</i> |
| 2. <i>Air Quality</i> | 8. <i>Land Use</i> |
| 3. <i>Geology and Soils</i> | 9. <i>Infrastructure</i> |
| 4. <i>Water Resources</i> | 10. <i>Socioeconomic Resources</i> |
| 5. <i>Biological Resources</i> | 11. <i>Human Health and Safety</i> |
| 6. <i>Historic and Cultural Resources</i> | |

Based on this EA's analysis, the Preferred Action Alternative would result in no effects to geology, water resources, historic and cultural resources, aesthetic and visual resources, land use, or human health and safety. Short-term, less-than-significant adverse effects to noise, air quality, soils, and biological resources would occur during construction, but would be minor and localized. Long-term positive infrastructure (i.e., improved communications infrastructure) effects would be anticipated. Both short- and long-term positive socioeconomic effects, including Environmental Justice concerns, would occur. No significant effects are anticipated.

Under the No Action Alternative, the Proposed Action would not be implemented and no improvements to the current level of communications capabilities within the ROI would occur. No positive impacts attributable to the Preferred Action Alternative would occur, and the ongoing adverse effect to the socioeconomic environment, including Environmental Justice concerns, would continue. This ongoing adverse socioeconomic effect is due to the general lack of suitable communications infrastructure within the ROI, which limits the potential for economic growth and the ability of community facilities, including hospitals, schools, healthcare facilities, libraries, public safety entities, and critical community organizations, to function at optimum, modern levels.

The EA also examines the potential cumulative effects of implementing each of the considered alternatives. This analysis finds that implementation of the Preferred Action Alternative would not result in significant cumulative effects to onsite or regional natural or cultural resources, and would enhance the socioeconomic environment of the area through long-term provision of improved communications capabilities, fostering increased economic growth. The Preferred Action Alternative would improve the connectivity of community anchor institutions, providing a cumulative positive effect on community services, public health and safety, and education. The No Action Alternative would not produce these potential positive socioeconomic gains, and would continue to contribute to the less-than-ideal socioeconomic conditions of the ROI. However, these effects would not be cumulatively significant.

AGENCY AND NATIVE AMERICAN INVOLVEMENT

Agencies consulted for this EA include: the US Fish and Wildlife Service (USFWS), Ohio and Pennsylvania Offices; Pennsylvania Department of Conservation and Natural Resources (PADCNR); Pennsylvania Fish and Boat Commission (PAFBC); Pennsylvania Game Commission (PGC); Ohio Office of Coastal Zone Management, Ohio Department of Natural Resources (ODNR); Pennsylvania Office of Coastal Zone Management; Ohio Historic Preservation Office (i.e., State Historic Preservation Officer, or SHPO); and Pennsylvania Historical and Museum Commission (Pennsylvania SHPO). Agency information and comments have been incorporated into this EA. Copies of relevant correspondence can be found in **Appendix A**.

The NTIA utilizes the Federal Communications Commission (FCC) automated Tower Construction Notification System to notify federally recognized Native American tribes of proposed projects that have received grant awards. This system is designed for identification of, and early communication with, all federally recognized Native American tribes, including Alaska Native Villages, Native Hawaiian Organizations, and Tribal Historic Preservation Officers (THPOs). Each tribe in this system has previously identified their geographic area(s) of interest, and therefore receives only those notices of proposed projects that fall within that specified area. For this project, the NTIA entered the proposed project description into the FCC's automated system. If notified tribes are interested in receiving more information on a specific proposed project, they respond via e-mail. If this occurs, the NTIA, through established government-to-government protocol, puts the Grantee (i.e., Zito Media) in touch with the tribe that has requested more information to complete the consultation process. This process is fully compliant with the requirements of 36 CFR 800.2 and Executive Order (EO) 13175. Five (5) responses have been received from the federally recognized tribes notified through the Tower Construction Notification System (see **Appendix A**).

The NTIA, as the Federal agency, will consider the input provided by regulatory agencies and federally recognized Native American tribes, as well as the findings of this EA, in their decision-making concerning this Proposed Action. Based on this consideration, the NTIA will prepare a Finding of No Significant Impact (FONSI) if there are no substantive comments or issues and if the EA's analysis supports a FONSI pursuant to the above-referenced regulations.

CONCLUSIONS

The analysis performed in this EA concludes there would be no significant impact, either individually or cumulatively, to the local environment or quality of life associated with implementation of the Preferred Action Alternative, provided the environmental management measures incorporated into the Proposed Action and described in this EA are implemented.