

**Environmental Assessment  
Project BEAR  
(Broadband for the East Alabama Region)  
Revision 3**

**Prepared for JKM Consulting, Inc.**

**Submitted to:  
National Telecommunications and Information Administration  
Award # NT10BIX5570095  
Submitted**

**Prepared by  
East Alabama Regional Planning and Development Commission  
January 2011  
Revised March 2011  
Revised April 2011**

# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>4</b>
<b>CHAPTER 1: PURPOSE AND NEED.....</b>	<b>6</b>
<b>CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES .....</b>	<b>7</b>
<b>CHAPTER 3: THE AFFECTED ENVIRONMENT .....</b>	<b>11</b>
Noise .....	11
Air quality.....	11
Geology and Soils .....	11
Water Resources.....	12
Biological Resources.....	13
Historic and Cultural Resources.....	19
Aesthetic and Visual Resources.....	20
Land Use .....	21
Infrastructure .....	21
Socioeconomic Resources .....	22
Human Health and Safety .....	23
Climate, Greenhouse Gases and Global Warming.....	25
<b>CHAPTER 4 – ANALYSIS OF ENVIRONMENTAL IMPACTS .....</b>	<b>27</b>
Noise .....	27
Air Quality .....	28
Geology and Soils .....	28
Water Resources.....	29
Biological Resources.....	30
Historic and Cultural Resources.....	33
Aesthetic and Visual Resources.....	34

<b>Land Use .....</b>	<b>35</b>
<b>Infrastructure .....</b>	<b>35</b>
<b>Socioeconomic Resources .....</b>	<b>36</b>
<b>Human Health and Safety .....</b>	<b>36</b>
<b>Climate, Greenhouse Gases, and Global Warming.....</b>	<b>37</b>
<b>Cumulative Impacts .....</b>	<b>40</b>
<b>CHAPTER 5: PERMITS AND REGULATORY REQUIREMENTS.....</b>	<b>42</b>
<b>CHAPTER 6: AGENCIES AND PERSONS CONSULTED .....</b>	<b>43</b>
<b>CHAPTER 7: REFERENCES.....</b>	<b>44</b>
<b>APPENDIX A: ENDANGERED AND THREATENED SPECIES.....</b>	<b>46</b>
<b>APPENDIX B: NATIONAL REGISTER OF HISTORIC PLACES AND THE ALABAMA REGISTER OF LANDMARKS AND HERITAGE.....</b>	<b>47</b>
<b>APPENDIX C: CONSULTATION WITH THE U.S. FISH AND WILDLIFE SERVICE .....</b>	<b>48</b>
<b>APPENDIX D: HISTORICAL AND CULTURAL RESOURCES IN CLOSE PROXIMITY TO PROJECT BEAR.....</b>	<b>49</b>
<b>APPENDIX E: CONSULTATION WITH THE ALABAMA HISTORICAL COMMISSION .....</b>	<b>52</b>
<b>APPENDIX F: CONSULTATION WITH THE TRIBAL HISTORIC CONSULTATION OFFICE ..</b>	<b>53</b>
<b>APPENDIX G: SOCIOECONOMIC DATA CALHOUN COUNTY, ALABAMA .....</b>	<b>54</b>
<b>CALHOUN COUNTY, ALABAMA .....</b>	<b>55</b>
<b>APPENDIX H: CONSULTATION WITH THE U.S. FOREST SERVICE.....</b>	<b>67</b>
<b>APPENDIX I: CONSULTATION WITH THE ARMY CORPS OF ENGINEERS .....</b>	<b>68</b>
<b>APPENDIX J: BROWNFIELD SITES .....</b>	<b>69</b>
<b>APPENDIX K: SYSTEM MAP.....</b>	<b>70</b>
<b>APPENDIX L: STREAM/WETLANDS CROSSINGS.....</b>	<b>71</b>

## APPENDIX M: CONSULTATION WITH NRCS

## **Executive Summary**

JKM Consulting, Inc. provides process and project management of telecommunications services, specializing in fiber optic facilities. The following broadband infrastructure program, “Project BEAR” (Broadband for East Alabama Region) intends to expand a partner network as a composite of fiber optic facilities and wireless base stations.

The broadband infrastructure system for Project BEAR will be a composite of 176.8 miles of fiber optic facilities with OC48 optronics to the network and six (6) WiMax base stations. These stations will be strategically positioned to provide broadband access to rural areas currently unserved and underserved in Calhoun and Clay counties. These stations will reach pockets of residents in low-income areas, as well as residents isolated by current and former military facilities, large tracts of national forest and rugged terrain.

The overall cost to implement this project is \$8,199,737.

The broadband infrastructure for Project BEAR is multi-county and identifiable in eight service areas. The areas served by this project contain a minimum of 52,612 households, 3,707 businesses and 91 strategic institutions.

In alignment with the Recovery Act, Project BEAR will connect five medical facilities with managed broadband services for health information technology to improve the quality and coordination of health care in east Alabama.

Six libraries, one located in a high-risk community, will increase current capacity to 100Mbps enhancing the opportunities for community awareness and training as well as after-school programs. Each library facility has additional goals for this broadband enhancement.

Current law enforcement programs in the service areas have limited access to broadband data networks. Incorporating wireless base stations will allow access to broadband in rural areas for city and county law enforcement and other emergency responders. In Clay County, the new system will provide mobile broadband access to all public safety entities of this rural community.

The fiber infrastructure will connect educational institutions such as the Success Academy and Jacksonville State University (JSU) into the local network. JSU’s connection will expand the potential for educational advancement to all county and city schools on the network, including the juvenile education facilities of Coosa Valley Youth Services. JSU’s connection will also facilitate the establishment of a regional hub for the statewide ACCESS network, reducing access costs and allowing additional schools to connect at higher speeds.

Talladega College, Alabama’s oldest historically black, Liberal Arts College in the historic district of downtown Talladega will be an additional educational institution as the network extends into Talladega County, along with Central Alabama Community College campus in Talladega.

In the rural area of Randolph County, Southern Union State Community College will contribute space in their computer center and connect to Project BEAR for increased bandwidth capacity.

Utilizing data from the project budget, the expected subscriber projection would include 15% of the residents in the last mile portion. Business projections include 3% of the market share. Anchor Institution projections include 29% of the market share. Utilizing the formula consistent with the CEA (Council of Economic Advisors) guidelines, Project BEAR will be creating or saving an estimated 68 jobs through the infrastructure project for the east Alabama region.

The alternatives that will be discussed in this document are:

- No Action
- 100% installation aerially
- 100% installation underground
- 100% wireless
- The preferred alternative: a mix of underground and aerial installation.

BEAR has contacted interested organizations and government agencies with regard to the environmental impact of this proposed system, in accordance with the National Environmental Protection Act (NEPA). These consultations were specifically to determine any potential environmental impact of Project BEAR, and to implement the system in ways that would avoid this impact. The organizations consulted are:

- The Alabama Historical Commission
- U.S. Fish and Wildlife
- U.S. Army Corps of Engineers
- Native American Tribes
- U. S. Forest Service

In addition, many hours of research were performed using resources available on the internet and well as written and conversational consultations. It has been determined that, by following the guidances given by these organizations, Project BEAR will have no significant environmental impact on the East Alabama region.