## Summary

Pine Telephone Company, Inc. (PTC) applied to the Broadband Technology Opportunities Program (BTOP) for a grant to construct 29 new towers and use three existing towers to build a wireless broadband network in rural southeastern Oklahoma. The new network will service 20,671 individuals, connect 20 community anchor institutions, and is referred to as the Broadband Grant for Isolated Southeastern Oklahoma/Choctaw Nation Rural/Non-Remote Areas (Project).

The National Telecommunications and Information Administration (NTIA) awarded a grant for the Project to PTC, through BTOP, as part of the American Recovery and Reinvestment Act (ARRA). The funding must be obligated and the Project completed within three years. This timeline is driven by the laws and regulations governing the use of this ARRA grant funding.

BTOP supports the deployment of broadband infrastructure in unserved and underserved areas of the United States and its Territories. As a condition of receiving BTOP grant funding, recipients must comply with all relevant Federal legislation, including the National Environmental Policy Act of 1969 (NEPA). Specifically, NEPA limits the types of actions that the grantee can initiate prior to completing required environmental reviews. Some actions may be categorically excluded from further NEPA analyses based on the specific types and scope of work to be conducted. For projects that are not categorically excluded from further environmental review, the grant recipient must prepare an Environmental Assessment (EA) that meets the requirements of NEPA. After a sufficiency review, NTIA may adopt the EA, use it as the basis for finding that the project will not have a significant impact on the environment, and issue a finding of no significant impact (FONSI). Following such a finding, the BTOP grant recipient may then begin construction or other activities identified in the EA as the preferred alternative, in accordance with any special protocols or identified environmental protection measures.

PTC completed an EA for this Project in November 2010. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

# The Project includes:

- Constructing 29 self-support towers that will be 199 feet tall;
- Installing a prefabricated 9 foot by 12 foot building and generator at the base of each new tower;
- Improving 2,000 feet of roadways at four new tower sites to facilitate construction equipment access;
- Installing equipment in existing shelters located at three tower sites owned by PTC; and

 Providing a wireless last mile connection for 20,671 individuals and 20 community anchor institutions.

Based on a review of the analysis in the EA, NTIA has determined that the Project, implemented in accordance with the preferred alternative, and incorporating best management practices (BMPs) and protective measures identified in the EA, will not result in any significant environmental impacts. Therefore, the preparation of an EIS is not required. The basis for this determination is described in this FONSI.

Additional information and copies of the Executive Summary of the EA and FONSI are available to all interested persons and the public through the BTOP website (www2.ntia.doc.gov/) and the following contact:

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## **Purpose and Need**

The purpose of the Project is to deliver affordable and reliable broadband Internet access to individuals, businesses, and critical community anchor institutions in southeastern Oklahoma. The Project will deliver up to 3 Mbps to last mile users located within the service area. Nearly 95 percent of the residents currently located within the service area do not have access to broadband Internet. This Project will allow local fire departments, which serve as the emergency alert system, to access communication systems, weather data, and mapping. The Project is also needed to create jobs and stimulate the economy in rural and impoverished communities.

## **Project Description**

PTC will construct 29 tower new sites and use three existing towers to implement their Project. At the existing sites, remote radio heads and antennas will be added to the towers, equipment will be installed within the existing shelters, and no ground disturbing work will occur. No booms, lights, or guy wires will be added to the existing towers.

The 29 new towers will be 199-foot self-support towers. These self-support towers will not require guy wires or lights. To prepare the site for the tower, an area not expected to exceed 10,000 square feet, or less than one-quarter of an acre, will be disturbed during construction. The area around the base will be shaped to prevent erosion and a 30 foot by 40 foot concrete slab will be poured around the tower base and extended to serve as the foundation for the building and generator. Once the base has cured, the towers will be erected and antennas will be installed on the towers. A prefabricated 9 foot by 12 foot metal building and a generator will be installed at the tower base. The generators use diesel fuel to provide back-up power and are anticipated to run less than 30 minutes per month. Most of the new tower sites are located within 200 feet of an existing highway or dirt road, and are therefore easily accessible. Roadway improvements, such as smoothing the road surfaces and adding road base materials, are required at four of the new tower sites. The estimated two thousand feet of roadways in need of repair do not cross any wetlands, streams, or rivers.

Connection to last mile customers and anchor institutions will be accomplished wirelessly using either a USB dongle or desktop modem. No ground disturbing activities will be required to connect last mile customers and anchor institutions.

### **Alternatives**

The EA includes an analysis of the alternatives for implementing the Project to meet the purpose and need. NTIA also requires that an EA include a discussion of the no action alternative. The following summarizes the alternatives analyzed in the EA.

Alternative 1 – Wireless Installation (Preferred Alternative). As discussed previously, this alternative includes installing new towers, equipment, and prefabricated buildings at 29 sites and adding equipment to existing shelters at 3 tower sites owned by PTC. This Project will wirelessly connect 20,671 individuals and 20 community anchor institutions.

No Action Alternative. No action was also considered. This alternative represents conditions as they currently exist. Under the no action alternative, there would be no broadband infrastructure installed in southeastern Oklahoma where almost 95 percent of the residents do not have access to broadband Internet. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

Alternatives Considered But Not Carried Forward. Various tower sites were considered for this Project and PTC eliminated five of them based on archeological survey results. PTC also considered various technologies to implement the Project. The Project area is rural and has low population densities. Installing fiber underground was eliminated from further consideration because it is cost prohibitive and would have a greater environmental impact. The placement of buried cable would also require crossing many streams, rivers, and culturally sensitive areas. Installing aerial fiber was also considered. Installing a new pole line for placement of the aerial

fiber would have required the clearing of thousands of miles of right of way and placement of tens of thousands of new poles. In addition, PTC considered using existing electric company pole lines, but the Project area is served by several different electric companies. There are areas where the existing poles are not connected or the existing pole lines would need to be upgraded to support the aerial fiber. This alternative would require thousands of new poles and hundreds of miles of clearing. In both cases, clearing and placement of the new poles would result in ground disturbing activity and would cross wetlands, rivers, and streams. Although adverse environmental effects of aerial fiber are less significant than buried fiber, the impacts are still more significant than the preferred alternative. Finally, PTC considered using towers that are greater than 200 feet in height to reduce the number of towers required to implement the Project. After closer examination, this alternative was also eliminated because it would only minimally reduce the number of towers but the impacted area at each new site would increase from less than 10,000 square feet to nearly 300,000 square feet. In addition, towers taller than 200 feet require guy wires and lights and therefore have a greater potential to impact migratory birds.

# **Findings and Conclusions**

The EA analyzed existing conditions and environmental consequences of the preferred alternative in 11 major resource areas, including 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. Cumulative impacts were also evaluated.

### Noise

Short-term increases in ambient noise levels are expected during tower construction. Noise created by tower construction equipment will be temporary and localized in nature. This noise will be similar to that associated with vehicle traffic near the tower sites. Unless there is an extended power outage, the generators will run for less than 30 minutes per month. Therefore, the diesel generator will create a minor, long-term increase in ambient noise levels at each tower site. No significant adverse impacts on noise are expected to occur as a result of Project implementation.

# Air Quality

Fugitive dust will be generated during tower construction. When necessary, the construction area will be sprayed with water to minimize fugitive dust from construction activities. There will also be a short-term, minor increase in the use of fossil fuel and associated green house gas emissions during tower construction. These emissions will be similar to those currently generated by vehicles traveling near the tower sites. Unless there is an extended power outage, generators located at each tower site will be tested for ten minutes every other week. The testing procedure is expected to burn less than one gallon of diesel fuel per year. No significant air impacts will occur during long-term operation and maintenance of the network. Accordingly, no significant adverse impacts on air quality are expected as a result of this Project.

# Geology and Soils

The area to be disturbed at each new tower site is anticipated to be less than 10,000 square feet, or less than one-quarter of an acre. PTC consulted with McCurtain, Choctaw, Bryan, and Atoka counties regarding tower construction. Each county provided a letter of no impact or no significant impact. McCurtain, Choctaw, and Atoka counties recommended that PTC sow Bermuda or Rye grass around the tower sites to prevent erosion. To prevent erosion PTC will use sediment barriers during construction, and until sowed grass is established. The area surrounding the tower base will be brought back to grade and grass will be sown. No prime or unique farmlands will be affected. Based on these considerations, the Project will not result in significant adverse impacts on geology and soils.

### Water Resources

There are no coastal zones, wild and scenic rivers, wetlands, floodplains, or water bodies on or near the tower sites. BMPs (e.g., placing sediment barriers, sowing grass, and grading tower sites) will be implemented to prevent soil erosion and sedimentation and minimize impacts on local water resources. Through implementation of appropriate BMPs, no adverse impacts on water resources will occur as a result of this Project.

## **Biological Resources**

Noise and human activity associated with tower construction is expected to disturb some wildlife species, but these effects will be minor and temporary. PTC consulted with the U.S. Fish and Wildlife Service (USFWS), the Oklahoma Department of Wildlife Conservation (OKDWC), and the Oklahoma Biological Survey (OBS) regarding potential impacts to biological resources. In response to a July 19, 2010, letter from PTC to the USFWS, the USFWS referred PTC to a blanket approval document. The approval document states that towers less than 200 feet, unlit and not guyed, and not within grassland, 750 feet of habitat for federally-listed species, or 300 feet of wildlife refuges, fish hatcheries, wildlife management areas, or related significant fish and wildlife resources, will have no impact on federally-listed species or other federal trust resources. New tower sites that meet these criteria have a blanket USFWS approval. Site surveys at each tower site verified that the sites meet the criteria for the blanket approval.

On October 13, 2010, a representative from the Department of Commerce spoke with the Anita Barstow from the USFWS. Although identifying American burying beetle (*Nicrophorus Americanus*) habitat is difficult, Mrs. Barstow stated that the USFWS is satisfied that there will be no adverse effect on the American burying beetle and that the consultation has been completed to their satisfaction. In August, the OKDWC sent letters responding to each site and concurred that there would be little or no effect on endangered species or migratory birds. The OBS sent email responses regarding each tower site; they found no occurrence of threatened or endangered species in their database at the tower sites. As a protective measure, PTC employees and construction crews will be trained to recognize endangered species that might be encountered in the construction area. If an endangered species is encountered, PTC will contact

the USFWS to determine how to proceed. Towers will be less than 200 feet, not guyed or lit, and designed to support multiple carriers, thereby reducing potential impacts to migratory birds. Based on these analyses, no significant adverse impacts on biological resources are anticipated.

### Historic and Cultural Resources

An archeological survey was conducted for each tower site and there are no historic resources or structures of aesthetic significance listed within one half mile of any of the sites.

The tower sites underwent National Historic Preservation Act Section 106 review under the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the FCC (Program Comment issued by the Advisory Council on Historic Preservation, Federal Register Vol. 74, No. 223, Friday, November 20, 2009). PTC provided survey results and a cultural resources report to the Oklahoma State Historic Preservation Office (SHPO) and the Oklahoma Archeological Survey. The Oklahoma SHPO and the Oklahoma Archeological Survey provided clearance letters for each tower site stating that there are no known historic properties within the Project area. The Oklahoma Archeological Survey requested that they be contacted if buried archaeological materials, such as chipped stone tools, pottery, bone, historic crockery, glass, metal items, or building materials are exposed during construction activities.

PTC notified potentially interested Native American tribes of the Project through the Federal Communications Commission's Tower Construction Notification System (TCNS). The Choctaw Nation, Quapaw Tribe of Oklahoma, Osage Nation, Caddo Nation, and Delaware Nation, responded to the notification, indicating an interest in further consultation on the Project. PTC provided additional documentation regarding the Project to these tribes. Each tribe responded that they have no concerns or issues associated with the Project.

Based on these findings and consultations, the Project will have no adverse impacts on archeological and cultural resources.

# Aesthetic and Visual Resources

The construction of 29 new towers will cause minor long-term impacts on aesthetic and visual resources in southeastern Oklahoma. The tower site locations are generally close to rural roads. There are no protected areas within a half mile of any new tower site. Accordingly, this Project will not have significant adverse impacts on aesthetic and visual resources.

## Land Use

All new tower sites are located in rural areas where there are no zoning or permitting requirements. Grazing land and undeveloped land with brush and small trees are currently present at the 29 new tower sites. There are prime and unique farmlands in the five counties where the new towers will be placed. McCurtain, Choctaw, Bryan, and Atoka counties returned a letter of no impact or no significant impact. Maps indicate that there are no prime or unique

farmlands at the specific tower sites in Pushmataha County. Accordingly, implementation of this Project will not have significant adverse impacts on land use.

## *Infrastructure*

There are no zoning or permitting requirements to construct towers in this rural area of southeastern Oklahoma. The roads to access the tower sites are generally less than 200 feet and will be gated during construction to prevent unnecessary traffic. Improvements to an estimated 2,000 feet of roadway are necessary at four new tower sites. These roadways do not cross any wetlands, streams, or rivers. These same four sites also require the installation of about 2,000 feet of electric lines. The Project is expected to have significant positive impacts on local infrastructure resources.

### Socioeconomic Resources

This Project will provide improved broadband services to underserved and unserved areas of southeastern Oklahoma. This Project will benefit the local community in the short-term with new jobs to construct the network, and in the long-term with new jobs in customer and technical support. The Project will also provide infrastructure that can be used to attract new employers and improve educational opportunities. Overall, the Project will have a positive impact on socioeconomic resources.

## Human Health and Safety

Protective measures will be implemented during construction activities to protect human health and safety. The construction zone at the tower sites will be fenced when construction personnel are not present. There will be no hazardous materials used during the construction process. Safety climbs will be employed to install the towers. All construction personnel will also be required to know and follow Occupational Safety and Health Administration safety procedures. Because PTC will implement these protective measures, construction activities will not generate any significant adverse worker or public health or safety issues. Once the tower sites are constructed, positive impacts to human health and public safety are anticipated as a result of improved communications to the local fire departments and healthcare providers.

### **Cumulative Impacts**

This Project will result in few adverse effects on the evaluated resource areas. Effects of the Project, when combined with other unrelated activities (e.g., road maintenance or construction), are considered less than significant. PTC contacted state and county agencies and no shared construction corridors were identified.

In an area where 95 percent of the residents currently do not have access to broadband Internet, the Project will result in positive cumulative impacts on socioeconomic resources. These positive impacts include additional job and education opportunities, as well as improved public safety and healthcare resources.

### **Decision**

Based on the above analysis, NTIA concludes that constructing and operating the Project as defined by the preferred alternative, identified BMPs, and protective measures will not require additional mitigation. A separate mitigation plan is not required for the Project. The analyses indicate that the proposed action is not a major Federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued:

Wayne Ritchie

Chief Administrative Officer

Office of Telecommunications and Information Applications National Telecommunications and Information Administration