

# **Environmental Assessment Report**

**Holly Tower**  
**SE Region Homeland Security**  
Intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

**Prepared For:**  
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## Executive Summary

This Environmental Assessment (EA) has been prepared to identify, analyze, and document the physical, environmental, cultural, and socioeconomic impacts associated with a tower built through the Southeast Region Homeland Security, from the Public Safety Interoperable Communications Grant Program. This project is funded by a grant from the National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce. Because the tower was built using guy wires, the grant application requires the completion of an Environmental Assessment to ensure that the tower does not negatively impact migratory birds protected under federal law, as well as other National Environmental Policy Act requirements.

The project involves the assessment of a 150' guy wire tower, associated fenced compound, and dirt access road in Prowers County, Colorado. SE Region Homeland Security's Project also provides telecommunication connectivity throughout Southeast Colorado with the rest of the State of Colorado to increase radio coverage for emergency responders. The project also projects future interoperability between Kansas and Colorado Responders. SE Region Homeland Security's project partnership includes multiple local and state agencies within multiple municipalities in Southeast Colorado.

Trileaf on behalf of Southeast Region Homeland Security has contacted interested environmental and governmental agencies to insure that the tower construction did not involve any of the unusual risks or impacts to sensitive areas outlined in this EA and include:

|                   |                                 |                         |
|-------------------|---------------------------------|-------------------------|
| Noise             | Biological Resources            | Infrastructure          |
| Air Quality       | Historic and Cultural Resources | Socioeconomic Resources |
| Geology and Soils | Aesthetic and Visual Resources  | Human Health and Safety |
| Water Resources   | Land Use                        |                         |

This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) as well as requirements of the *EA Guidance for Broadband Technology Opportunities Program* (BTOP), to determine whether any of the listed FCC special interest items were significantly affected by the construction of the tower structure and/or antenna and associated equipment cabinets when constructed at the site location.

Based upon the information researched for this Environmental Assessment, no significant impact was determined. However, adverse effects to biological resources including migratory birds and threatened and endangered species have required mitigation for compliance with Federal Agencies in order to achieve no significant impact.

The US Fish and Wildlife Service's agreement of no significant impact to the lesser prairie-chicken and migratory birds were achieved due to the agreement that the responsible parties agreed to the terms of the mitigation. These terms included payment into a fund for lesser prairie-chicken habitat conservation projects and the addition of bird deflectors on the guyed-

wires of the tower. Under these conditions the US Fish and Wildlife Service agrees that the effects of this tower on environmental factors is of no significant impact.

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## **1.0 Introduction**

On behalf of Southeast Region Homeland Security and the Town of Holly, Colorado, Trileaf completed this Environmental Assessment (EA) for an existing rural broadband tower located south of the Town of Holly, Colorado, near the intersection of State Route 89 and County Road AA. The tower received funding by a grant from the National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce. The grant was awarded to assist state and local agencies in the improvement of their public safety interoperable communications capabilities. The broadband tower provides seamless roaming among towers statewide, increased radio coverage for emergency responders throughout Southeast Colorado, and will allow in the future for interoperability between Kansas and Colorado responders. The tower is 150 feet tall with three guy wire anchors. The grant application requires the completion of an EA to ensure that the requirements of the National Environmental Policy Act and other federal laws are addressed and in compliance.

The project area includes a 150 foot guyed-wire tower, a fenced compound approximately 22' x 44', 3 guy wire easements approximately 100' long, and a gravel access road approximately 350' long and 12' wide that leads from County Road AA to the tower compound. The project area is located in a rural area of Powers County within an area used predominately for agriculture and pasture land. The tower is located approximately 4 ½ miles south of the Town of Holly at latitude 37° 59' 7.9" North, longitude 102° 6' 47.99" West in the SW1/4 of Section 2, Township 24 South, and Range 42 West (Figure 1). Site Photographs are provided in Figure 2.

### **Purpose and Need**

The tower serves as the host to a Digital Trunking Repeater System (DTRS) that is interlinked to a Zone Controller which allows users statewide to seamlessly roam among towers statewide. The DTRS system is the primary radio communications system of first response agencies in Southeast Colorado and will provide increased coverage for local, state and federal agencies from multiple jurisdictions, including the towns of Holly, Granda, Bristol, Two Buttes, Prowers County, Baca County, and many federal agencies. The tower also provides coverage into Kansas and in the future will allow for interoperability between Kansas and Colorado responders. These agencies utilize the system for day to day and mutual aid operations.

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## **2.0 Federal Undertaking**

Local, state and federal agencies from multiple jurisdictions across Southeast Colorado rely on the Digital Trunking Repeater System (DTRS) for their primary radio communications systems for first response agencies. The DTRS is interlinked to a Zone Controller that attempts to connect users across the state by roaming from tower to tower. However, limitations in the connectivity decrease these agencies' ability to provide critical services to residents. The Holly Tower provides the connectivity to allow users statewide to seamlessly roam among towers statewide, and directly provide needed services to the following local, state and federal agencies:

- Holly Fire Department, Holly Ambulance Service, Granda Police Department, Granda Fire Department, Bristol Fire Department, Two Buttes Fire Protection District, Two Buttes Ambulance Service, Walsh Fire Department and Walsh Ambulance Service
- Prowers County Sheriff's Office, Prowers Rural Fire Protection District, Prowers Medical Center, Baca County Sheriff's Office, Prowers County Emergency Management and Baca County Emergency Management
- Colorado State Patrol, Colorado Division of Wildlife, Colorado State Park Service, National Park Service, United States Forest Service and Colorado State Forest Service

### **Project Description**

The federal undertaking included the construction of a 150' guyed-wire tower, as well as utility and access easements to the tower compound. The fenced compound is approximately 22' x 44', 3 guy wire easements approximately 100' long, and a gravel access road approximately 350' long and 12' wide.

### **Alternatives**

Several project alternatives, including the Federal Undertaking, were investigated during the facility selection process as discussed below:

### **Federal Undertaking**

Due to the higher topographic location and positioning of the Holly tower, lack of available suitable collocations, and the obtainable lease in an area to provide connectivity of the DTRS in Southeast Colorado, The Southeast Region Homeland Security decided to construct a new tower that would be able to connect users statewide to seamlessly roam among towers statewide. In addition, the tower is constructed in a manner to allow for future collocations to eliminate the need to build additional towers. The construction of the Holly tower will provide first response agencies in Southeast Colorado connectivity as well as coverage into Kansas and in the future will allow for interoperability between Kansas and Colorado responders.

### **No Action**

Under the No Action Alternative, current radio communications used by first responders and other emergency personnel in Prowers County will not be improved. The No Action Alternative will serve as the baseline for assessing the impacts of other alternatives.

### **Alternatives Considered But Eliminated**

An alternative location referred to as the Town of Holly Old Tower site, was considered for the construction of the Holly Tower, however, there was an existing lease agreement at this site that could never be found in the city records. The location had been the site of a tower that had been destroyed in a storm and dismantled, however due to the missing title documentation, progress with this site could not be made. Other alternatives south of the chosen site were not at the proper elevation to service the Town of Holly and therefore did not meet the pre-screen requirements and were not carried forward for detailed analysis in this evaluation.

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### **3.0 Existing Environment**

The Federal Undertaking includes a 150 foot guyed-wire tower within Prowers County, Colorado. This section describes the environment prior to the construction of the tower. The description of the affected environment focuses on those resource areas that were potentially subjected to impact resulting from the Federal Undertaking. Those resource areas that will be evaluated include noise, air quality, geology and soils, water resources, biological resources, historic and cultural, aesthetic and visual, land use, infrastructure, socioeconomic resources, and human health and safety.

#### **Resource 1 – Noise**

Noise is defined as unwanted sound that interferes with normal human activities or wildlife behavior, or may otherwise diminish environmental quality (EPA, 1974).

#### **Existing Conditions**

The project site consisted of normal noise levels for the setting. The natural level of noise consisted of light vehicle use on the nearby state route and county road traveled within a rural agricultural/pasture land setting.

#### **Resource 2 – Air Quality**

Air quality is measured by the concentration of various pollutants in the atmosphere, usually expressed in units of parts per million (ppm) or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Six major air pollutants have been identified as carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter, and lead (Pb). The Federal Environmental Protection Agency (EPA) has set maximum allowable levels of these air pollutants that can exist in the outdoor air without unacceptable effects on human health or the public welfare.

#### **Existing Conditions**

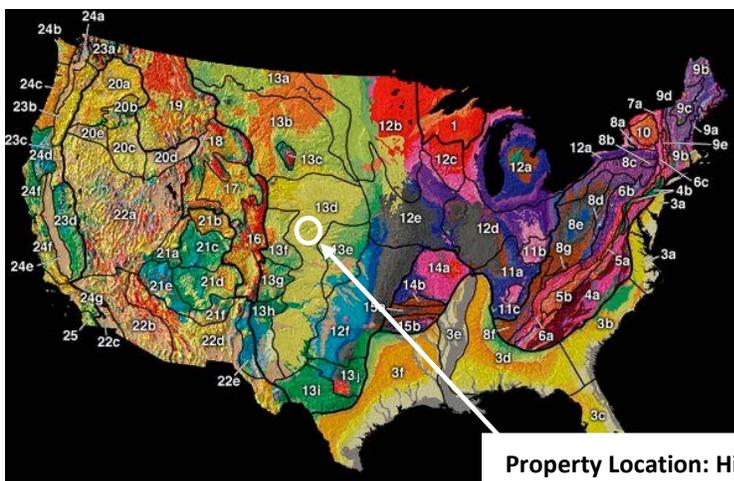
According to the Colorado Department of Public Health and Environment, no areas outside the Denver northern Front Range will violate the new 8-hour ozone standard that was issued in March 2008 by the U.S. Environmental Protection Agency. In addition, a new regional haze plan was adopted by Colorado in 2010 and 2011 that includes controls for oxides of nitrogen (NO<sub>x</sub>) for industrial plants that will also benefit ozone reduction efforts (<http://www.cdphe.state.co.us/ap/ozone.html>).

### Resource 3 – Geology and Soils

Geological resources are described as the geology, soils, and topography that characterize an area. The geology of an area refers specifically to the surface and near-surface materials of the earth and the processes that formed those materials. Soil resources include the terrestrial materials overlying the bedrock or parent material and are typically described by their complex type, slope, and physical characteristics. In addition, prime and unique farmlands, which are protected under the Farmland Protection Policy Act of 1981 (FPPA), are of State and local importance. “Prime farmland” is defined as land that has the best combination of physical and chemical characteristics for successfully producing crops. “Unique” farmland is defined as land that is used for the production of certain high-value crops. The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses (NRCS.usda.gov/programs/fpps/).

#### Existing Conditions

The Prowers county region that encompasses the Federal Undertaking is located within physiographic region defined as the High Plains section, which is part of the larger Great Plains province (USGS, A Tapestry of Time and Terrain). The Great Plains Province is a vast east-tilted surface formed by deposition of sediment eroded from the uplifting Rocky Mountains in Early Tertiary time. Natural vegetation typical of the Great Plains are grasses typical of tallgrass and medium grass prairies. Other vegetation included forbs and larger plants such as the yucca, prickly pear cactus, mesquite, and sagebrush (Encyclopedia Britannica). Typical crops in this area include wheat, corn, soybeans, and pasture grasses (Forest Service, Overview of the Great Plains). The site habitat would not be considered prime farmland.



Property Location: High Plains-Great Plains Province

The following soil description was obtained from the U.S. Soil Conservation Service Soil Survey for the Holly Tower site. According to the U.S. Soil Conservation Service Soil Survey, the Holly Tower site is underlain by Trivoli sand with 0 to 5 percent slopes. The Trivoli sand soils are excessively-drained. Parent material is Eolian sands. Trivoli soils are not prone to flooding or

ponding. A typical profile of Trivoli soils consists of a sand from 0 to 72 inches deep, with depth to the most restrictive feature and depth to water table more than 80 inches from the surface. Soil maps and descriptions are listed in Figure 3.

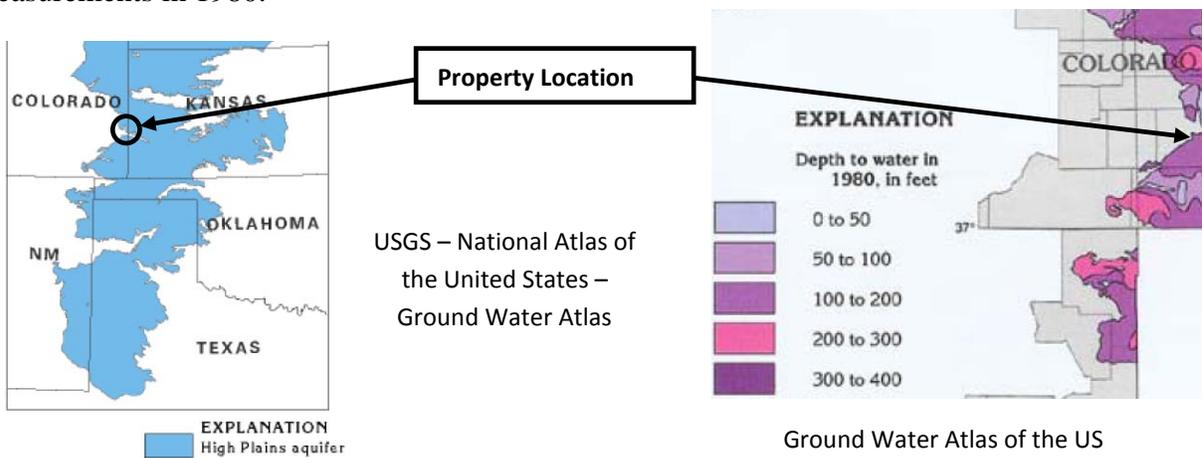
**Resource 4 – Water Resources**

Water resources include subsections on the conditions and occurrences of surface water, groundwater, wetlands, floodplains, coastal zones, and wild and scenic rivers in the project areas. These resources are managed by laws and executive orders administered by multiple agencies. The US EPA provides authority over the Clean Water Act (CWA) to protect and regulate water quality of all discharges into “waters of the United States.” The EPA also regulates the Safe Drinking Water Act (SDWA) and provides the national health-based standards for drinking water and protect against naturally occurring and man-made contaminants that enter a water resource and could affect a given watershed. Management of coastal zones is administered by the National Oceanic and Atmospheric Administration as well as state environmental agencies. The U.S. Army Corps of Engineers (ACOE) is the permitting authority for any work in wetlands or other waters of the United States. The US EPA as well as authorized state agency regulate ground-disturbing work that could potentially affect groundwater in the state.

**Existing Conditions**

Water resources are inherently site-specific resources. The Holly Tower site is not located within a wetland (Figure 4), floodplain (Figure 5), coastal management zone, or wild or scenic rivers as determined from the review of databases, maps, and site reconnaissance. The tower site is located at approximately 3527 feet above mean sea level. The Arkansas River is located approximately 3.5 miles north of the Holly Tower site, and Two Butte Creek is approximately 3.5 miles west of the Holly Tower site. There were no surface water bodies directly adjacent to the Holly Tower site.

Prowers County, including the area of the Holly Tower site is fed by the High Plains Aquifer. Depth to the ground water at the tower site is approximately 300 to 400 feet according to measurements in 1980.



The average annual precipitation in Prowers County, Colorado is approximately 14.8 inches per year. Average annual snowfall is 27.0 inches, and the climate is describes as Semi-Arid/Mild.

## **Resource 5 – Biological Resources**

Biological resources are animals, plants, and their habitats that are native to an area, including threatened or endangered species, vegetation and associated habitats, migratory birds, and wetlands.

The Endangered Species Act (ESA) (16 U.S.C. §1531) is administered by the National Marine Fisheries Service (NMFS), which manages marine species, and the U.S. Fish and Wildlife Service (USFWS), which manages freshwater fish and all other species. The ESA requires Federal agencies to conserve endangered species by listing endangered and threatened species of plants and animals and designate the critical habitat for animal species. The ESA defines an endangered species as any species in danger of extinction throughout all or a significant area of its range and a threatened species as any species likely to become endangered in the near future. Under Section 7 of the ESA, Federal agencies, in consultation with USFWS or NMFS, must ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, or to result in the destruction or adverse modification of critical habitat. Consultation with the USWS or NMFS is required if the Project is suspected to adversely affect a listed species or critical habitat.

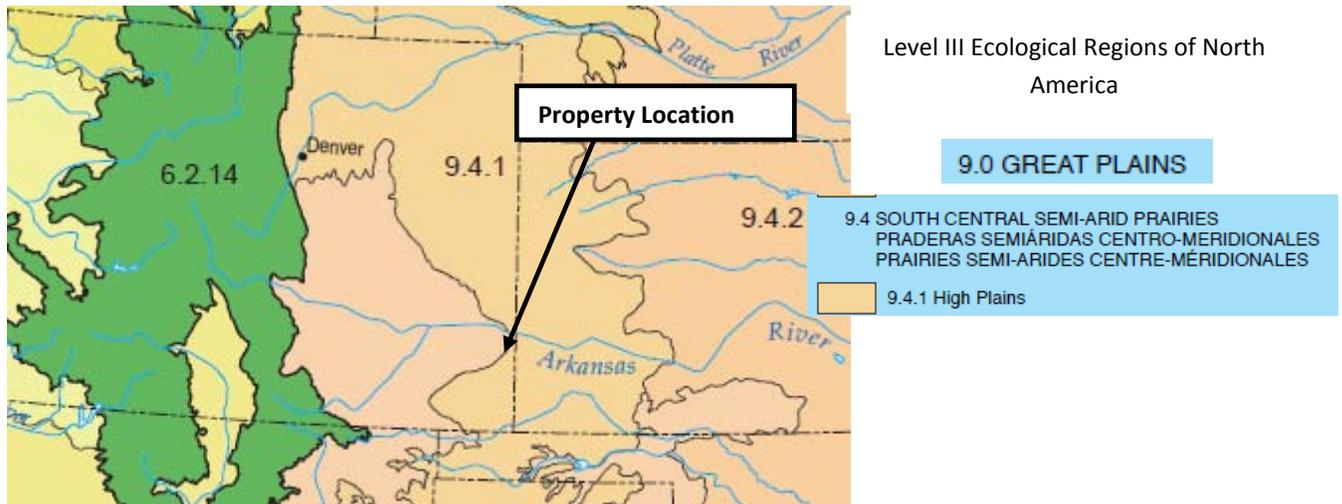
The Migratory Bird Treaty Act (MBTA) (16 U.S.C. §703) and EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) direct the federal government to protect migratory birds. Any actions that have or are likely to have a measurable negative effect on migratory bird populations require consultation with the USFWS to reach a Memorandum of Understanding (MOU) to conserve migratory bird populations.

EO 11990 (Protection of Wetlands) requires Federal agencies to minimize the destruction, loss, or degradation of wetland habitat. Wetland habitats generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. Any erosion or fill that could potential affect a wetland habitat is strictly prohibited and any action that is likely to have a negative effect on a wetland habitat requires consultation with the ACOE.

### **Existing Conditions**

An Ecological region can be defined as a mapped and classified area of land with distinctive biological, physical and human characteristics. There are three ecological levels that North America is broken down into, each a more specific description of the biota nested within the previous level. The main ecological region encompassing the Holly Tower Site of the Federal

Undertaking is the Great Plains distinguished by its dissected plains with broad rolling ridge tops and moderately steep valley sides. Current vegetation consists of agricultural production; and historic vegetation included Great Plains grasslands, prairie, and aspen-birch cover types (description of Ecological Subregions). More specifically the ecological region can be defined as the High Plains of the South Central semi-Arid Prairies of the Great Plains.

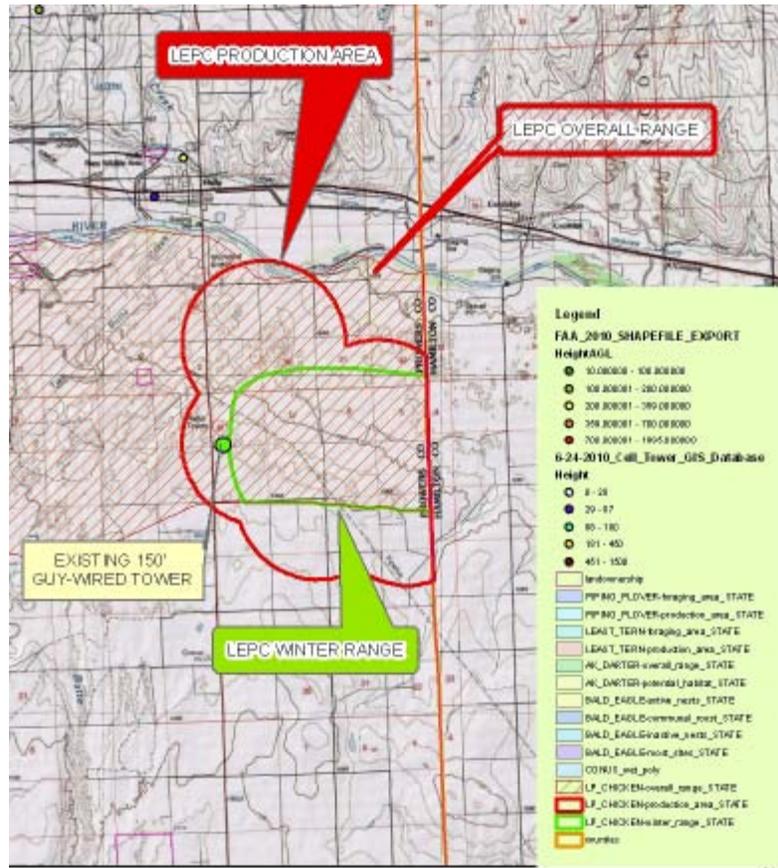


The Federal Undertaking includes the review of a tower construction in Prowers County, called the Holly Tower Site. This tower site is an existing 150’ guyed-wire tower, with a 350’ x 12’ dirt access road and 3 guyed-wire easements approximately 100’ long. Therefore, the habitat for the existing tower has been altered by the Federal Undertaking. This review is to determine if there are any significantly adverse effects to the habitat during construction of the tower. The current habitat is described below. The Biological Assessments and Correspondence with the Federal agencies is included in Appendix A.

Threatened and Endangered Species

Holly Tower is located on gently undulating land that consists of desert rangeland dominated by bunch grasses, narrow leaved yucca, sagebrush, and desert forbs, with a high surface percentage of bare ground. The Tower site setting is in a rural agricultural/pasture land area of Prowers County, Colorado. The property used for the Federal Undertaking is rangeland used for grazing and is surrounded by rangeland in all directions with County Road AA to the south, State Route 89 to the west, and a residential property located to the east. A dirt road was built to access the tower site from County Road AA, and extends approximately 350 feet. No burrows, nests, wetlands, or threatened and endangered species were observed during the site reconnaissance. No federally designated critical habitat was identified for the area, however, a state listed threatened species, the lesser prairie-chicken (LEPC) (*Tympanuchus pallidicinctus*) does have critical habitat mapped within the site area according to the Colorado US FWS. This critical

habitat includes lesser prairie-chicken overall range, production area, and is just west of known winter range for this bird species.



Federal and State listed threatened, endangered, or proposed for listing within Prowers County, Colorado were researched to determine potential habitat within the area affected by the Federal Undertaking. The federal list of species was obtained by the U.S. FWS and the state listed species from the Colorado Division of Wildlife. Species lists are included in the Informal Biological Assessment in Appendix A. The Holly Tower site pre-construction could have potentially provided habitat for the burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), and the lesser prairie-chicken (*Tympanuchus pallidicinctus*). Due to the potential affects to these species habitat by the Federal Undertaking, consultation with the Colorado Fish and Wildlife Service has been initiated. Consultation has been directly with Craig Hansen, The Colorado Field Office Fish and Wildlife Biologist. Mr. Hansen was unable to provide a statement of no adverse effect for the Holly Tower site due to the site's location within the lesser prairie-chicken's production area, range, and proximity to the species winter range, as well as concerns for migratory birds due to the guyed-wires. Therefore, the project required mitigation to compensate the biological resources affected by the tower.

### Migratory Birds

There were no nests or migratory birds observed during the site reconnaissance. In addition, the tower site is not located directly within a known migratory bird flyway. However, due to the guyed-wires used on the tower, the US FWS were concerned for incidental take of migratory birds. Bird deflectors on the guyed-wires were required by the US FWS as a form of mitigation for potential effects to migratory birds.

### Wetland Habitats

The closest mapped wetland is approximately 1 mile south of the Holly Tower site and is mapped as a palustrine, emergent, intermittently flooded/temporary wetland. There were no hydrophytic plants, hydric soils, or surface water observed during the site reconnaissance or evidence of wetlands prior to the Federal Action from the National Wetlands Inventory Map (NWI).

## **Resource 6 – Historic and Cultural Resources**

Historic and cultural resources are sites, structures, buildings, districts, or objects, associated with important historic events or people, demonstrating design or construction associated with a historically significant movement, or with the potential to yield historic or prehistoric data, that are considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason (NPS, 2008). Historic and cultural resources are subdivided into the following categories

- **Archaeological resources:** This includes prehistoric or historic sites where human activity has left physical evidence of that activity but few above ground structures remain standing.
- **Architectural resources:** This includes buildings or other structures or groups of structures that are of historic or aesthetic significance.
- **Native resources:** These include resources of traditional, cultural, or religious significance to a Native American Tribe, Native Hawaiian, or Native Alaskan organization.

There are multiple Federal regulations that protect historic and cultural resources. The National Historic Preservation Act of 1966 (NHPA) (P.L. 89-665, 16 U.S.C. §470) directs the Federal Government to consider the effects of its actions on historic and cultural resources under Section 106. The primary agency that would provide comment and required input on individual EAs for projects that may impact historic and cultural resources would be the respective State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO) for federally-recognized Tribes. Coordination with the appropriate SHPO is required for each project.

## **Existing Conditions**

Review of historic and cultural resources near or at the Holly Tower site was conducted by a Secretary of the Interior Qualified-Archaeologist. This review has been submitted to the Colorado SHPO for determination of effects. A letter dated November 30, 2010 was received by the Colorado Historical Society State Historic Preservation Officer stating that there are no cultural resources in the Area of Potential Effects (APE). Tribal resources are being identified using the Tower Construction Notification System (TCNS). This system identifies all interested tribes/organizations in consulting on the Federal Undertaking. Consultation with the identified tribes will continue following the Federal Communication Commission (FCC) guidelines for consultation. SHPO submittals, SHPO correspondence, and cultural resource reports are included in Appendix B.

## **Resource 7 – Aesthetic and Visual Resources**

Aesthetic and visual resources of an area may include natural features (water bodies, vegetation, etc.), architectural features, and any protected areas in the vicinity, such as national and state parks that may require consultation for potential impacts to visual resources. Consultation is often done at the community level with historical societies, certified local government agencies, or other jurisdictional agencies to determine the potential effects resulting from the Federal Undertaking.

## **Existing Conditions**

A Cultural Resource Report was prepared to determine if any potential architectural resources exist within the project sites viewshed. A determination of no historic properties within a 1.5 mile radius of the Federal Undertaking was determined and submitted to the Colorado SHPO for final determination. The Colorado SHPO concurred with these findings stating that no cultural resources are within the APE. No national or state designated scenic byways or parks were affected by the Federal Undertaking. In addition to consultation with the Colorado SHPO, the Prowers County Historical Society was also sent material asking for any information regarding any known resources within the visual APE that they believe may have been affected by the Federal Undertaking. No responses have been received as of the date of this report. Public comment was also solicited through the publication of a public notice in the Lamar Ledger for the dates of October 15<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup>, 2010. No public comments have been received as of the date of this report. Consultation with the Colorado SHPO, the Prowers County Historical Society, and the Public Notice affidavit are included in Appendix B.

## **Resource 8 – Land Use**

The term “land use” refers to the human use of land and involves the management and modification of natural environment or wilderness into built environment such as fields, pastures, and settlements.

### **Existing Conditions**

The general land use for the site consists of the Holly Tower broadband communications tower within an area previously used as rangeland and is surrounded by rangeland and agricultural land. The Holly Tower site did not occur or impact coastal zones or coastal barrier resources. The distance to the nearest telecommunications tower that is registered with the Federal Communications Commission (FCC) is approximately 4.7 miles to the northwest. The construction of the tower is not a common use of land in the region, however, an old radio tower site exists approximately 1.4 miles to the northwest. The tower at this site had been removed approximately in 2006. Aerial maps and photographs of the site showing the existing land use and the surrounding land use are included in Figure 6 and 2 respectively.

## **Resource 9 – Infrastructure**

Infrastructure is the basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. Infrastructure refers to the technical structures that support a society, such as roads, water supply, sewers, power grids, telecommunications, etc.

### **Existing Conditions**

Prior to the Federal Undertaking the Holly Tower site did not have proper access roads. Therefore, a dirt road was built as part of the Federal Undertaking to access the telecommunications tower.

## **Resource 10 – Socioeconomic Resources**

Socioeconomics comprise the basic attributes and resources associated with the human environment, including demographic, economic, and social assets of a community. Demographics focus on population trends and age. The presence of low-income or minority communities are also addressed under EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations). This regulation helps to ensure that low-income or minority populations do not bear a disproportionate burden of negative effects resulting from Federal actions.

### **Existing Conditions**

Prowers County is not considered a minority area. The total population of Prowers County was estimated in 2010 to be 12,551 people and is a decrease in population from 2000 to 2010 (<http://2010.census.gov/2010census/data/>), with an estimated unemployment rate of 4.1 percent in 2006 (<http://www.procolorado.org/>).

### **Resource 11 – Human Health and Safety**

A safe environment is one in which there is no danger, or reduced potential, for death, serious bodily injury or illness, or property damage. Potentially hazardous waste sites and the identification of contaminated sites are managed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Regulation of exposure, and training required for people exposed to workplace stressors are specified and regulated by the Occupational Safety and Health Administration (OSHA), EPA, and State agencies.

### **Existing Conditions**

The Federal Undertaking consisted of construction activities at the Holly Tower site, previously undeveloped land. The EPA Envirofacts online environmental database was reviewed to identify the presence of any hazardous sites surrounding Holly Tower (<http://www.epa.gov/envirofw>). EPA Envirofacts website did not identify any hazardous waste sites, CERCLIS, RCRA, Brownfields, or Spill sites within ¼ mile of the tower.

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## **Section 4 – Environmental Consequences**

This section analyzes the Federal Undertaking and the No Action Alternative to provide an analysis of the direct and indirect effects and the level of significance of each effect identified. This analysis also includes the results of any consultation or coordination with resource agencies for each of the resources identified in Section 3.

### **Resource 1 – Noise**

Noise analyses typically evaluate potential changes to the existing noise environment that resulted from the tower construction under the Federal Undertaking.

#### **Federal Undertaking**

**Construction-Related Impacts** - Due to construction-related activities, there was a temporary increase in localized noise generated during the Holly Tower construction activities. Construction sounds may have temporarily frightened wildlife in the immediate vicinity of the construction site. It is anticipated that noise impacts from the Federal Undertaking construction activities were short-term and would not exceed typical noise levels, and therefore were not significant.

**Operations-Related Impacts** – After construction was completed at the Holly Tower site, the ambient noise level returned to its normal level. The tower is located in rural areas with very minimal residential populations. Therefore any increase in local noise level due to the tower and/or equipment associated with the tower would not have a significant impact to typical noise levels.

#### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. No impacts on the ambient noise environment would occur under the No Action Alternative.

### **Resource 2 – Air Quality**

Impacts to air quality can come from a variety of source during construction and during typical operation-related activities.

#### **Federal Undertaking**

**Construction-Related Impacts** – Air quality impacts during the construction of the Holly Tower site originated from emission of construction vehicles, equipment, and particulate dust

stirred up during ground disturbing activities. These sources of air pollution are point sources and would have been temporary with a limited duration. It is expected that the increase in air pollution resulting from construction activities did not result in an increase in the criteria air pollutants that would exceed maximum safe levels. Therefore, it is anticipated that the air quality related to the construction activities from the Federal Undertaking were short-term with no significant impact to air quality.

**Operations-Related Impacts** – After construction, the ambient air quality level would return to its normal level. The Federal Action did not result in a long-term operation related emission of air pollutants or significantly increase or alter the existing level of ambient air quality levels.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no change in existing air quality levels from the No Action Alternative.

## **Resource 3 – Geology and Soils**

Impacts to the Geology and Soils of the sites would result from ground disturbing activities.

### **Federal Undertaking**

**Construction-Related Impacts** – Impacts to the Holly Tower site soils occurred from ground-disturbing activities in the lease area that consisted of the tower footprint, the equipment compound, and the guyed-wire anchor points, as well as along the access easement. These activities may have included removal of vegetation, grading, filling, and digging. The tower footprint is approximately 22' x 44', with one equipment building within the lease area. Guyed-wire anchor points also included minimal surface area disruption. The length of the access road is approximately 350 feet and 12 feet wide. There would have been no significant impact to geology or soils from construction related activities. Due to the small area disturbed, it is unlikely that the construction resulted in a significant amount of soil erosion. The Federal Undertaking is not located on any unique geological formations to our knowledge. Therefore there were no significant impacts to geology or soil from construction related activities.

**Operations-Related Impacts** – After the construction activities were completed, no additional ground disturbing activities would be necessary for operation of the tower. There would be no impacts to geology and soils related to operations of the tower site.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no impact to geology and soils as a result of the No Action Alternative.

## **Resource 4 – Water Resources**

Impacts to water resources can result from several types of activities including erosion caused by site runoff, contaminants washing into a nearby water body or absorbing into the water table, or direct impacts such as building directly in a water resource such as a wetland or floodplain.

### **Federal Undertaking**

**Construction-Related Impacts** – Water quality impacts during the construction of the Holly Tower would have come from erosion and runoff resulting from soil disturbances for the site preparation and site access road. No surface water bodies were identified from maps or site reconnaissance within 300 feet of the Holly Tower site. The absence of an adjacent water body reduces the potential impact that soil disturbing activities at the site would have negatively impact a water resource. In addition, the site is fairly mostly flat and therefore soil erosion would have been minimal to negligible. Due to the high percent cover of bare ground in the vicinity of the tower, minimal desert vegetation would have been removed during the clearing of the tower for the Federal Undertaking. The tower site is not located within a mapped NWI wetland or within the 500-year floodplain. Wetland and Floodplain maps are included in Figures 4 and 5 respectively. Therefore, no significant impact to water quality was likely from construction activities for the Federal Undertaking.

**Operations-Related Impacts** – Operations-related impacts would be limited to erosion that occurs before the site has fully re-vegetated or during maintenance activities at the site. And as stated above, the absence of adjacent water bodies minimized the potential impact to water resources from the Federal Undertaking.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no risk of hazardous spills or other consequences of siltation or soil erosion into water resources. Therefore, there would be no impact to water resources or floodplains as a result of the No Action Alternative.

## **Resource 5 – Biological Resources**

Impacts to biological resources can result from the alteration of habitat required or used by a threatened or endangered species in such a way as to either temporarily or permanently alter the species ability to use that habitat. In addition, the increase in human presence and potential fragmentation of a habitat into smaller habitats can have a negative impact on biological resources.

## **Federal Undertaking**

### **Wildlife, Wildlife Habitat, Vegetation,**

**Construction-Related Impacts** – Minor adverse impacts on wildlife, habitats, and vegetation resulted from construction-related activities for the Holly Tower site under the Federal Undertaking. Construction activities for the tower required ground disturbing activities throughout the compound area, guyed-wire attachments, as well as the dirt access road that would include removal of vegetation present. Consultation with the Colorado Fish and Wildlife Service was initiated to determine potential effects to wildlife and habitat. Craig Hansen, a Fish and Wildlife Biologist at the Denver Field Office, was the main contact with regards to this project. Meetings both in person in Denver and multiple conversations over the phone, led to the determination that the site is located in lesser prairie-chicken habitat (supporting documents, maps, and conversations are in Appendix A), both breeding and winter range. This bird species is a state protected species and is proposed to be listed federally. Research has indicated that the lesser prairie-chicken is deterred by vertical structures, such as communications towers, and will abandon the habitat due to these structures. As a result, mitigation with the FWS was initiated to establish conservation recommendations for remediation opportunities in lieu of removing the Holly tower from lesser prairie-chicken habitats. FWS recommended that the Prowers Conservation District (PCD), a division of the Colorado State Conservation Board, Colorado Department of Agriculture, be contacted for the deployable remediation solutions for the Holly tower. The following recommendations were made to help in conservation efforts to mitigate the adverse effects caused by the construction of the Holly Tower on biological resources.

1. “The PCD can most effectively benefit the species through “on-the-ground” habitat improvement projects, like cattle rotations or interseeding, in suitable areas less influenced by a vertical avoidance zone...and suggest that a minimum of \$20,000 are required to make any sizable, lasting improvements in habitat conditions that benefit the species and promote recovery.”
2. “...the applicants should place bird flight diverters and other marking devices on the guy wires at the Holly tower to prevent collisions with migratory birds. Service and Colorado Division of Wildlife personnel or researches from the Communications Tower Working Group should be allowed to access the Holy tower at any time in order to assess impacts and gain information.”

Documentation of mitigation recommendations is included in Appendix A.4

**Operations-Related Impacts-** Routine maintenance activities at the tower site could have a potentially significant impact on wildlife, especially the lesser prairie-chicken that uses the area around the tower as breeding and nesting habitat. The presence of vertical structures within lesser prairie-chicken habitat deters the species from nesting in the area, therefore the tower

would significantly impact wildlife. Added human presence due to routine maintenance activities is not as negative an effect as the tower's presence itself. In addition, maintenance activities could have a minor impact on other wildlife, plants, or habitat existing around the tower. The potential to take small animals from an increase in vehicle traffic is a minimal risk, because the increase of vehicles on the new access roads would be minor and infrequent. It is likely that the operations-related activities would not have a significant adverse affect to wildlife, wildlife habitat or vegetation.

## **Migratory Birds**

**Construction-Related Impacts** – Impacts to migratory birds was unlikely during the construction work associated with the Federal Undertaking. No nests were likely due to the habitat type surrounding the site, trees or substantial vegetation would have been uncharacteristic of the site type. In addition, ground nests were not observed in the surrounding area during the site reconnaissance. Therefore, construction-related impacts were not expected to have a significant impact on migratory birds.

**Operations-Related Impacts** – Impacts due to the existence of the towers could potentially have an adverse impact on migratory birds. Adverse impacts on birds would result from collision with the tower, with an increased risk of collision if the tower is present within migratory pathways. The Fish and Wildlife Service stated that there is a potential effect to migratory birds by this tower due to the construction of the tower with guyed-wires. Therefore, the FWS recommended that bird flight diverters and other marking devices be installed on the guy wires at the Holly tower to prevent collisions with migratory birds. The towers total height is approximately 150 feet. According to the current available studies, such as the Michigan State Police Tower Study, towers above 500' appear to have more of an effect on migratory birds than towers that are shorter than 500'. Risk has been reduced to migratory birds by using towers less than 500', however, mitigation is required to minimize the effects on migratory birds.

## **Wetlands**

**Construction-Related Impacts** – Since no wetlands were identified using the NWI wetland mapper for the area encompassing the Holly Tower site, construction-related impacts would not have had an adverse impact on wetland habitats.

**Operations-Related Impacts** – With the absence of wetlands adjacent to the site, routine maintenance activities associated with the tower would not be expected to have an adverse impact on wetland habitats.

## **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no impacts on vegetation, wildlife, wildlife habitat, migratory birds, threatened and endangered species, or wetlands as a result of the No Action Alternative.

## **Resource 6 – Historic and Cultural Resources**

Impacts to historic and cultural resources can be direct effects such as a physical disturbance to resources, or indirect effects by altering the viewshed of resources. Consultation with the relevant state SHPO and THPOs are required to determine the nature of impacts to historic and cultural resources.

### **Federal Undertaking**

**Construction-Related Impacts** – Construction-related impacts to historic and cultural resources was assessed through an archaeological assessment, consultation with the Colorado SHPO and interested THPOs identified by TCNS. An archaeological report was prepared to ensure that potentially significant archaeological resources are not located within the area impacted by the existing tower. The project was recommended for clearance, as no archeological sites were identified. In addition, correspondence with interested tribes following the FCC’s procedures was concluded and no listed tribe stated any objection or concern for the tower site location. The Colorado SHPO concurred with Trileaf’s assessment, and stated that there are no cultural resources in the Area of Potential Effect (APE) and therefore no impacts to historic and cultural resources were expected due to the construction of the Holly Tower. SHPO correspondence and archaeological resource reports are included in Appendix B, and Tribal Correspondence summaries are included in Appendix B.3.

**Operations-Related Impacts** – Normal operations at each of the tower sties will not typically require any ground disturbing activities; therefore, it is expected that there would be no impact to historic and cultural resources.

## **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no impacts on historic and cultural resources as a result of the No Action Alternative.

## **Resource 7 – Aesthetic and Visual Resources**

Potential impacts on aesthetic and visual resources are likely to be greater in more natural (rural) settings than commercial or residential settings (urban and suburban) where development is more common.

### **Federal Undertaking**

**Construction-Related Impacts** – The Federal Undertaking, the Holly Tower construction site is located in a rural setting with limited vertical structures or tall vegetation. Therefore, the tower is more likely to have affects on aesthetic and visual resources than if the site had been in a different setting. Comments and opinions from the public were requested to aid in determining visual effects. Public notice was published in the Lamar Ledger on October 15<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup>, 2010. In addition, the Prowers County Historical Society was also sent information and asked to comment in regards to any concerns on these resources. No comments have been received as of the date of this report. Therefore, the impacts associated with construction related activities have likely had no significant impact.

**Operations-Related Impacts** – The area surrounding the Holly Tower site is used as range/agricultural land and has very few residential properties on the landscape. Although the area has little to no tall vegetation or other vertical structures in the vicinity of the tower site, the tower is not likely to have an adverse impact on this resource.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no impacts to the aesthetic and visual resources as a result of the No Action Alternative.

## **Resource 8 – Land Use**

Impacts to land use can occur when incompatible land uses are placed adjacent to one another or infractions to local planning and zoning has occurred.

### **Federal Undertaking**

**Construction-Related Impacts** – There are no certified local government contacts for the town of Holly or for Prowers County Colorado. However, correspondence with town of Holly officials did not result in information regarding the violation of any county or city planning and zoning regulations. Therefore, to our best knowledge, the Holly Tower does not impact this resource.

**Operations-Related Impacts** – No violation to land use was identified for the construction of the tower, and the further operation of the tower would not affect the land use or determination of no adverse impact to this resource.

### **No Action Alternative**

Under the No Action Alternative, there would be no new construction or activities associated with the collocation on existing structures. There would be no impacts to general land use compatibility as a result of the No Action Alternative.

## **Resource 9 – Infrastructure**

Impacts to infrastructure are typically observed as disruptions in service and utilities, either short- or long- term, resulting from increases in demand that may overwhelm the capacity of the local area to absorb them. System capacity must meet the projected increase in demand to avoid impacts to infrastructure.

### **Federal Undertaking**

#### **Utilities and Transportation**

**Construction-Related Impacts** – Construction-related impacts or activities associated with the Holly Tower most likely did not lead to any major shortages in electric supply or have significant impacts to utilities. The increase in vehicles on the road during construction would have been temporary. Since the tower project is located in a rural area and the access road leads only to the tower, there was most likely not a significant amount of construction-related traffic. Any Traffic related to the construction of the tower would have been a short-term increase on rural roadways.

**Operations-Related Impacts** – The daily operation of the tower would not be expected to cause noticeable impacts to local utility services or transportation activities during regular operations of the Holly Tower site.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no impacts to utilities or the transportation network as a result of the No Action Alternative.

## **Resource 10 – Socioeconomic Resources**

### **Federal Undertaking**

The implementation of Public Safety Interoperable Communications (PSIC)-funding through the Federal Undertaking would have increased jobs minimally and temporarily within this area. Due to the increase in construction-related activities at the sites, the short term employment will give a short term boost to the local economy. This may have temporarily helped to support local businesses that may supply goods and services to the temporary employees. The completion of the tower has provided services for first response agencies in Southeast Colorado and has increased communication connectivity. The tower will allow the first responders to share information for diagnosis and analysis in medical emergencies, and enable law enforcement access to real-time data, improving public safety services throughout the region. An increase in the Digital Trunking Repeater System (DTRS) through the construction of this tower has had positive impacts to the socioeconomics of the region.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. Without the tower there would have been no increase in economic activity or first responder communications. In addition, the connectivity of tower signals across the state would remain limited in the Southeastern portion of Colorado.

## **Resource 11 – Human Health and Safety**

### **Federal Undertaking**

**Construction-Related Impacts** – Under the Federal Undertaking, the tower has already been constructed, therefore any potential workplace safety hazards during construction of the tower no longer would be a concern.

**Operations-Related Impacts** – Under the Federal Undertaking, a 500 gallon propane tank is stored at the tower site for the generator. In the case of a leak, this potentially hazardous material could result in a release at the tower site creating some level of contamination. Restriction of access to the tower compounds will further minimize potential risk.

### **No Action Alternative**

Under the No Action Alternative, the tower would not have been constructed. There would be no risk of potential site hazards or environmental contaminants with the No Action Alternative, likewise there would be no advancement of communications to enable law enforcement and first responders a more rapid response to emergency situations.

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## **Section 5 – Findings and Conclusions**

### **Findings**

The Federal Undertaking included the construction of a 150' guyed-wire tower, as well as utility and access easements to the tower compound. The fenced compound is approximately 22' x 44', 3 guy wire easements approximately 100' long, and a gravel access road approximately 350' long and 12' wide.

Impacts to sensitive resources associated with the Federal Undertaking have been researched to determine if a significant impact to any resources have resulted from activities associated with this project. Biological resources were identified as being significantly impacted by the Federal Undertaking and more specifically include threatened and endangered species as well as migratory birds. However, extensive correspondence has lead to mitigation efforts that have satisfied both the US. Fish and Wildlife Service as well as NTIA to resolve the impacts and create a final determination of no significant adverse impacts to resources as a result of the Federal Undertaking.

In accordance with 47 CFR Section 1.1307 (a) (1) through (8), an evaluation has been made to determine whether any of the listed FCC special interest items were significantly affected by the Federal Undertaking. Effects to threatened or endangered species or designated critical habitats was answered in the affirmative. A FCC NEPA Checklist is included in Appendix C of this report.

### **Consequences of the Federal Undertaking**

The Federal Undertaking would not have a significant impact on any resource area within the eleven resource parameters described in Section 4, except Biological Resources. A significant adverse effect was identified for threatened and endangered species as well as migratory birds. However, mitigation efforts including a \$20,000 fee to be used for “on-the-ground” habitat improvement projects that benefit the lesser prairie-chicken and promote recovery, as well as bird deflectors, called the FireFly Bird Fight Diverter, to be added to the guyed-wires to decrease potential effects to migratory birds.

The Federal Undertaking has also had beneficial impacts on human health and safety, because the tower has improved the radio communication systems for first response agencies in Southeast Colorado.

### **Consequences of the No Action Alternative**

Under the No Action Alternative, improvements to the Digital Trunking Repeater System would not allow users statewide to seamlessly roam among towers statewide. Gaps in the radio

communications systems would remain, resulting in an adverse impact to human health and safety.

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## **Section 6. List of Preparers**

### **Document Preparers:**

*Principal Investigator* – Jennet C. Nguyen, Trileaf Environmental, Saint Louis, Missouri.

*Additional Investigators* – Laura Sauer, and Amy Gholson, Trileaf Environmental, Saint Louis, Missouri and Cultural Heritage Research Services, Inc. of North Wales, Pennsylvania.

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## **FIGURES**

Figure 1: Topographic Map

Figure 2: Site Photographs

Figure 3: Soil Maps and Soil Description

Figure 4: National Wetland Inventory Map

Figure 5: FEMA Flood Insurance Rate Map

Figure 6: Aerial Image

Figure 1: Topographic Map

# Durkee Creek NE, Colorado (DeLorme)

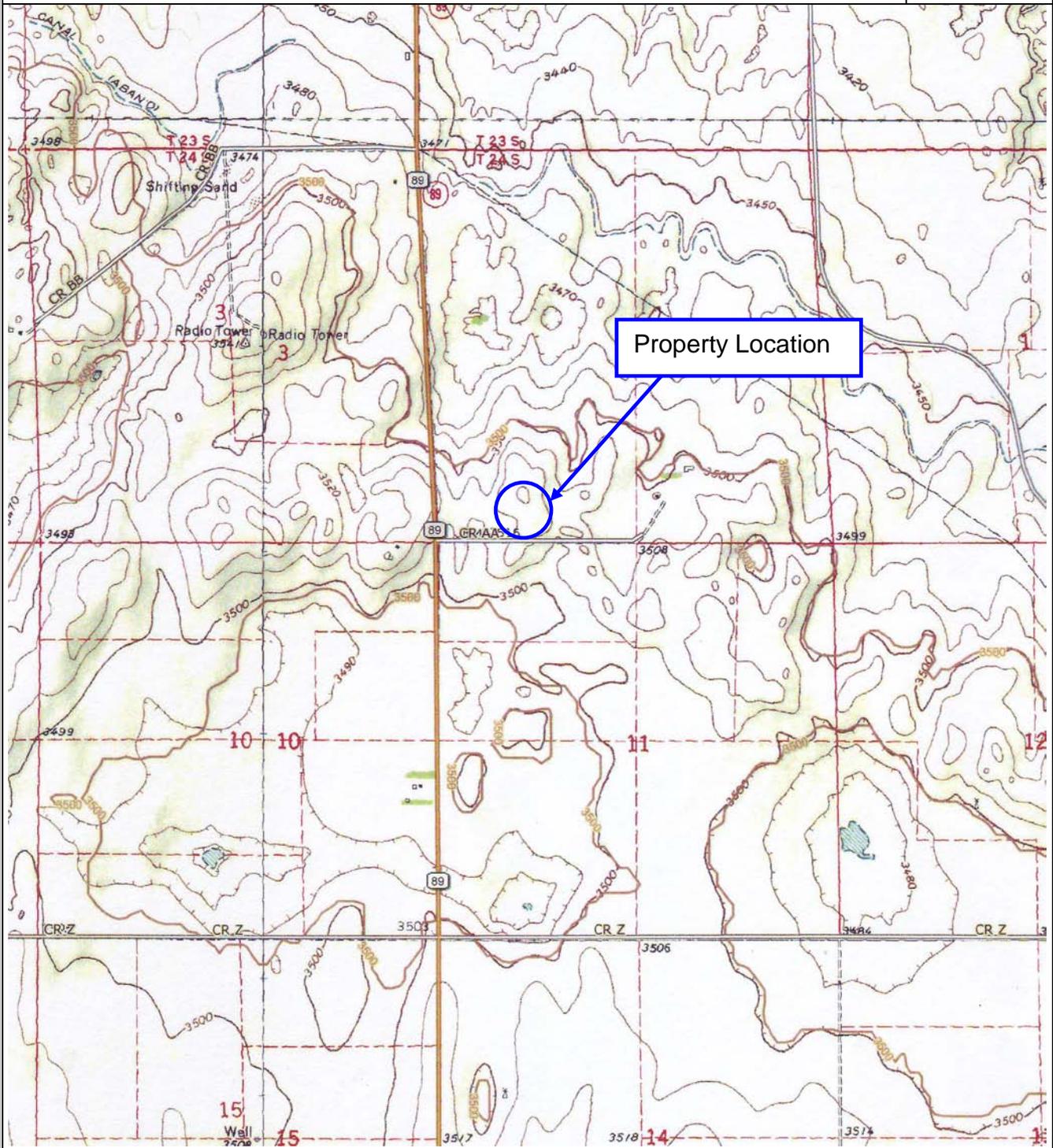
Contour Interval = 10 Feet

Scale

1 Inch = 2,000 Feet



North



Property Location

## USGS Topographic Map

Southeast Region Homeland Security – Holly Tower  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047



Figure 2: Site Photographs



**Site Photograph 1** – Looking north at the Property.



**Site Photograph 2** – Looking south at the Property.

### **Site Photographs**

**Southeast Region Homeland Security –  
Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

  
Environmental & Property Consultants



**Site Photograph 3** – Looking east at the Property.



**Site Photograph 4** – Looking west at the Property.

## Site Photographs

### Southeast Region Homeland Security – Holly Tower

Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

 **TRILEAF**<sup>tm</sup>  
Environmental & Property Consultants



**Site Photograph 5** – Looking north away from the Property.



**Site Photograph 6** – Looking south away from the Property along the proposed access easement.

**Site Photographs**

**Southeast Region Homeland Security –  
Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010





**Site Photograph 7** – Looking east away from the Property.



**Site Photograph 8** – Looking west away from the Property towards the guy wire and anchor.

### **Site Photographs**

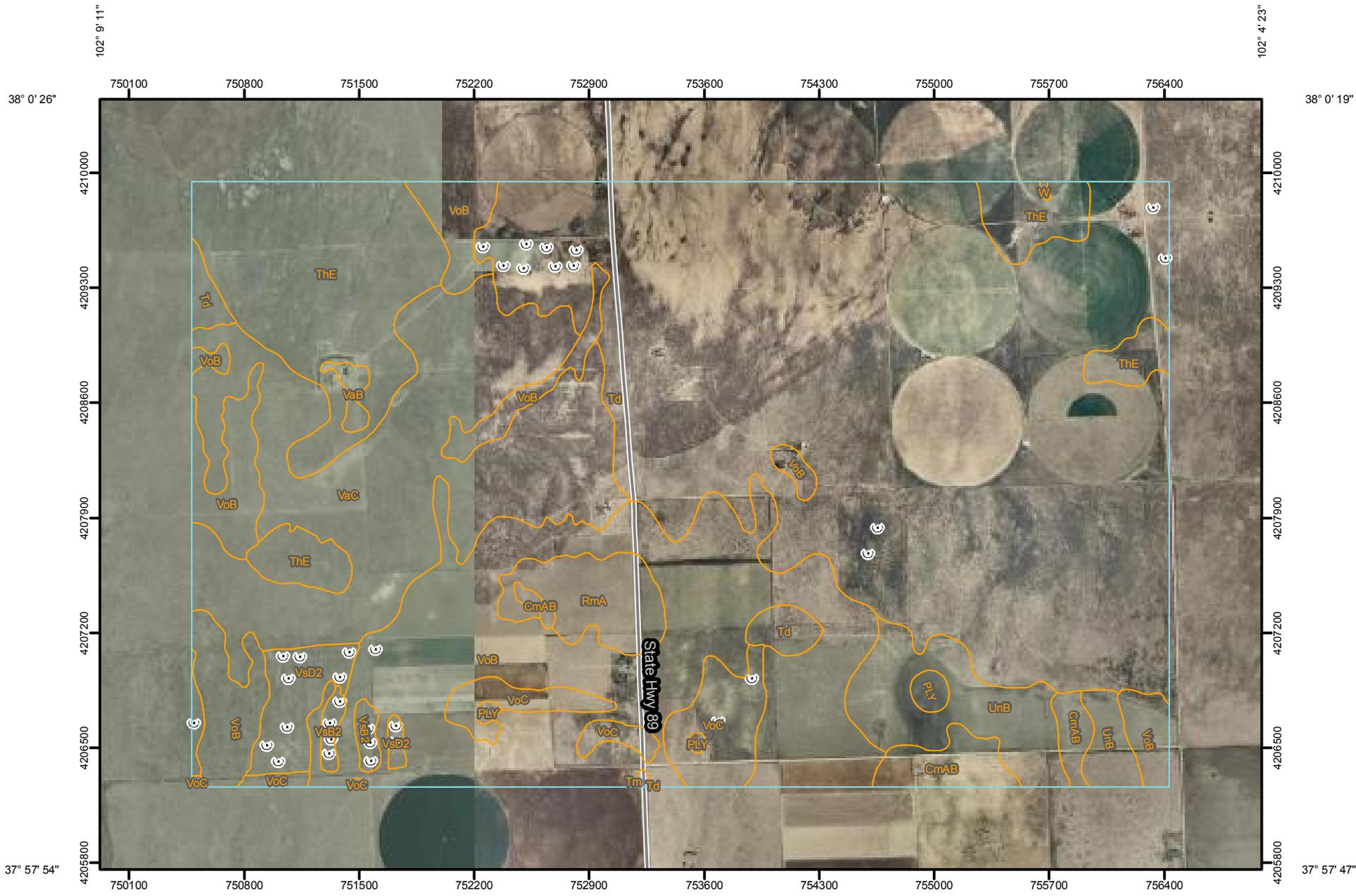
**Southeast Region Homeland Security –  
Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

 **TRILEAF**<sup>™</sup>  
Environmental & Property Consultants

Figure 3: Soil Map and Soil Description

Soil Map—Prowers County, Colorado  
(Holly Tower)



Map Scale: 1:33,500 if printed on A size (8.5" x 11") sheet.



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Units

### Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

### Special Line Features

-  Gully
-  Short Steep Slope
-  Other

### Political Features

 Cities

### Water Features

-  Oceans
-  Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads

## MAP INFORMATION

Map Scale: 1:33,500 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 13N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prowers County, Colorado  
Survey Area Data: Version 9, Jan 20, 2010

Date(s) aerial images were photographed: 7/30/2005; 6/18/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

| Prowers County, Colorado (CO099)   |  |                |                |
|------------------------------------|--|----------------|----------------|
| Map Unit Symbol                    | Map Unit Name                              | Acres in AOI   | Percent of AOI |
| CmAB                               | Colby silt loam, 0 to 3 percent slopes     | 84.0           | 1.6%           |
| PLY                                | Playas                                     | 17.8           | 0.3%           |
| RmA                                | Richfield silt loam, 0 to 1 percent slopes | 106.5          | 2.0%           |
| Td                                 | Tivoli sand                                | 2,255.3        | 41.7%          |
| ThE                                | Tivoli sand, hilly                         | 535.0          | 9.9%           |
| Tm                                 | Tivoli-Dune land complex                   | 2.2            | 0.0%           |
| UnB                                | Ulysses sandy loam, 0 to 3 percent slopes  | 203.9          | 3.8%           |
| VaB                                | Vona loamy sand, 1 to 3 percent slopes     | 14.5           | 0.3%           |
| VaC                                | Vona loamy sand, 3 to 5 percent slopes     | 776.6          | 14.4%          |
| VoB                                | Vona sandy loam, 1 to 3 percent slopes     | 1,147.9        | 21.2%          |
| VoC                                | Vona sandy loam, 3 to 5 percent slopes     | 157.7          | 2.9%           |
| VsB2                               | Vona soils, 1 to 3 percent slopes, eroded  | 25.3           | 0.5%           |
| VsD2                               | Vona soils, 3 to 9 percent slopes, eroded  | 82.0           | 1.5%           |
| W                                  | Water                                      | 1.3            | 0.0%           |
| <b>Totals for Area of Interest</b> |  | <b>5,409.9</b> | <b>100.0%</b>  |

## Prowers County, Colorado

### Td—Tivoli sand

#### Map Unit Setting

*Elevation:* 3,300 to 4,200 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 52 to 55 degrees F  
*Frost-free period:* 150 to 170 days

#### Map Unit Composition

*Tivoli and similar soils:* 90 percent  
*Minor components:* 10 percent

#### Description of Tivoli

##### Setting

*Landform:* Hills, fans  
*Landform position (three-dimensional):* Head slope, side slope, rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Eolian sands

##### Properties and qualities

*Slope:* 0 to 5 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very high  
(19.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 3 percent  
*Available water capacity:* Low (about 4.2 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 6e  
*Ecological site:* Deep Sand (R069XY019CO)

##### Typical profile

*0 to 9 inches:* Sand  
*9 to 48 inches:* Sand  
*48 to 72 inches:* Sand

#### Minor Components

##### Otero

*Percent of map unit:* 5 percent  
*Landform:* Plains, hills  
*Landform position (three-dimensional):* Side slope, head slope, rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

**Vona**

*Percent of map unit:* 5 percent

*Landform:* Plains, hills

*Landform position (three-dimensional):* Side slope, head slope, rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

**Data Source Information**

Soil Survey Area: Prowers County, Colorado

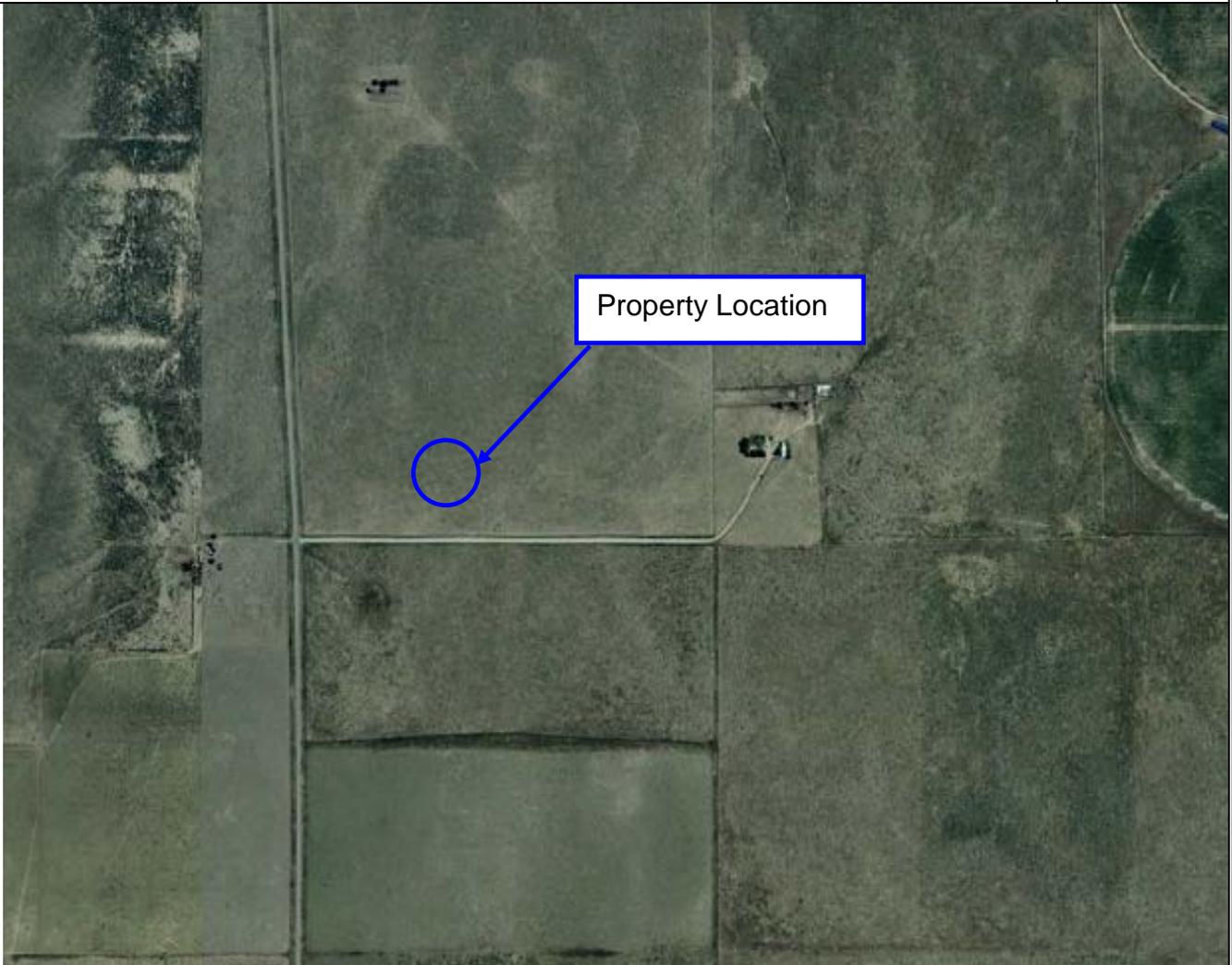
Survey Area Data: Version 9, Jan 20, 2010

Figure 4: National Wetland Inventory Map

# National Wetlands Inventory Map



North



## Wetlands

-  Freshwater Emergent
-  Freshwater Forested/Shrub
-  Estuarine and Marine Deetwater
-  Estuarine and Marine
-  Freshwater Pond
-  Lake
-  Riverine
-  Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

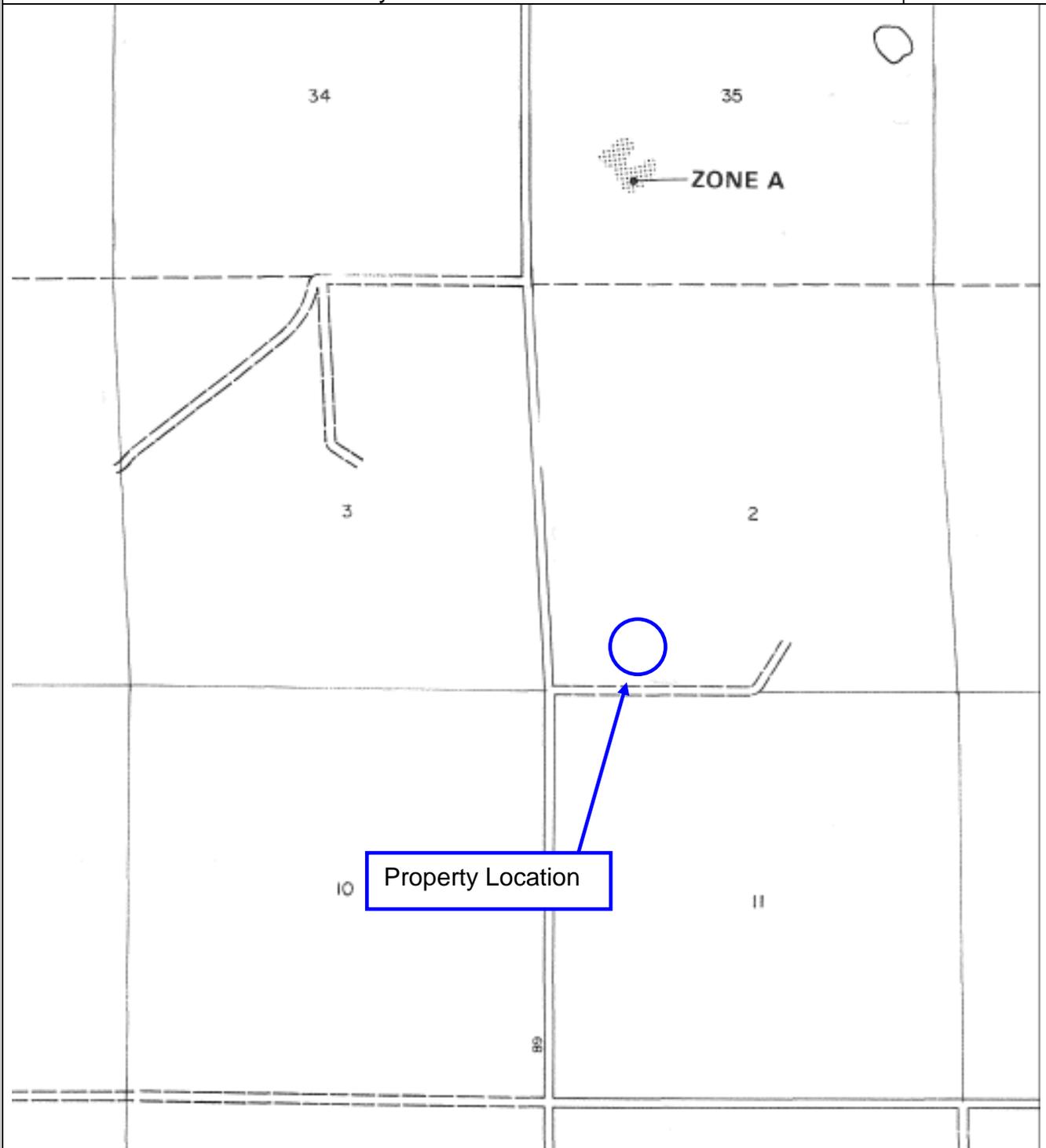
## National Wetlands Inventory Map

**Southeast Region Homeland Security – Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047



Figure 5: FEMA Flood Insurance Rate Map

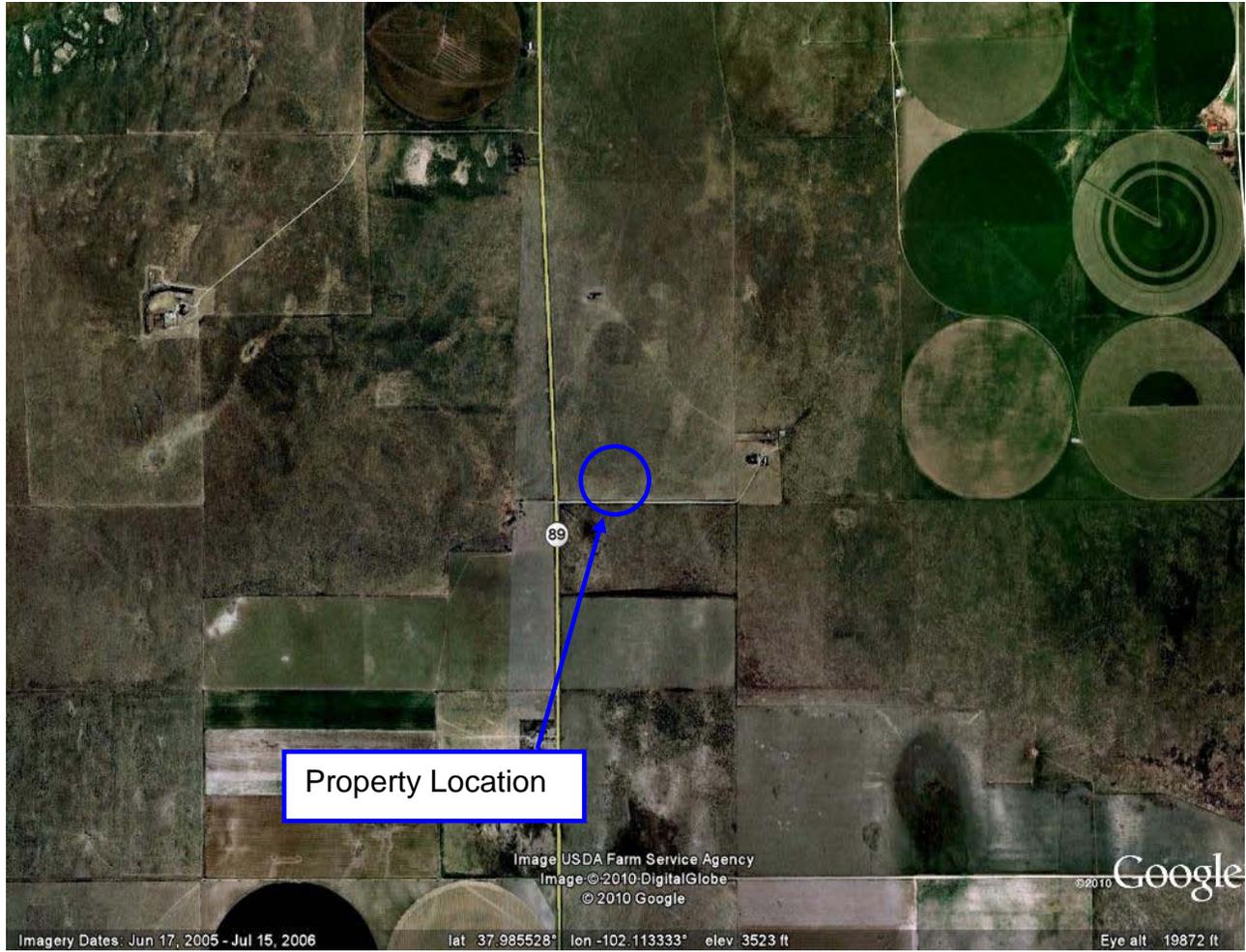
**Prowers County, Colorado**  
(Unincorporated Areas - Historic)  
July 12, 1977  
Community Panel #0802720012A



**FEMA Flood Insurance Rate Map**  
**Southeast Region Homeland Security – Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047



Figure 6: Aerial Image



## Aerial Photograph

### Southeast Region Homeland Security – Holly Tower

Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Google Earth Image  
Dated: June 17, 2005

 **TRILEAF**<sup>™</sup>  
Environmental & Property Consultants

## **APPENDICES**

Appendix A: Informal Biological Assessment and Consultation Documentation

Appendix B: Section 106 Documentation

Appendix C: FCC NEPA Checklist

APPENDIX A: Informal Biological Assessments and Consultation Documentation

A.1: Informal Biological Assessment

A.2: Preliminary Consultation with FWS

A.3: Lesser Prairie Chicken Habitat Map

A.4: Mitigation Letter

## A.1: Informal Biological Assessment



Engineering • Environmental • Construction

10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

October 15, 2010

**U.S. FISH AND WILDLIFE SERVICES, COLORADO FIELD OFFICE**

Attention: Susan Linner  
P.O. Box 25486, DFC 65412  
Denver, CO 80225

**RE: Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**

Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W

Dear Ms. Linner:

Trileaf Corporation is in the process of completing a Environmental Assessment for an existing rural broadband tower located at the above referenced property. The structure is 150' tall with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off Co. Road AA is approximately 500' long and 12' wide. The site before construction and the surrounding area is rangeland used for grazing. Please note that the tower is not lit because it does not exceed an overall height of 200 feet above ground level. Enclosed is the "Tower Site Evaluation Form", a site location map, photographs of the site to assist you in your review, an informal biological assessment, and the FCC ASR search results for the area.

Our investigation includes determining if any of the following special resource areas are located at the site:

1. Is the site located in an area that would increase risk to migratory birds?
2. Is the site located in or on a wilderness area or wildlife preserve?
3. Is the site located in or on a designated critical habitat?
4. Does the site sustain any species of plant or animal life that is designated or proposed as threatened or endangered?

We are requesting from you a letter addressing the presence or absence of each of these special resources in this area. If you need additional information or have any questions you may reach me at (314) 997-6111. Thank you for your cooperation in this regard.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist

Enclosure

**TOWER SITE EVALUATION FORM**

1. Location ( Provide maps if possible):

State: CO County: Prowers Latitude/Longitude/GPS Grid: 37.985528, -102.11333  
City and Highway Direction ( 2 miles W on Hwy 20, etc.) Approximately 4 miles  
south of US-50 on SR-89, then 0.2 mi west on CR-AA off SR-89

2. Elevation above mean sea level: 3530 feet

3. Will the equipment be co-located on an existing **FCC licensed** tower or other existing structure (building, billboard, etc.)? (y/n) No If yes, type of structure: \_\_\_\_\_  
If yes, no further information is required.

4. If no, provide proposed specifications for new tower: Tower already constructed  
Height: 150 Construction type (lattice, monopole, etc.): Guy-wired

\_\_\_\_\_

Guy-wired? (y/n) Yes No. bands: 3 Total No. Wires: 9  
Lighting (Security & Aviation): No lighting on tower

\_\_\_\_\_

If tower will be lighted or guy-wired, complete items 5-19. If not, complete only items 19 and 20.

5. Area of tower footprint in acres or square feet: 22' x 44'

6. Length and width of access road in feet: 500' long ~ 12' wide

7. General description of terrain - mountainous, rolling hills, flat to undulating, etc. Photographs of the site and surrounding area are beneficial:

Undulating

\_\_\_\_\_

\_\_\_\_\_

8. Meteorological conditions (incidence of fog, low ceilings, etc.): No

\_\_\_\_\_

9. Soil type(s): Tivoli Sand

\_\_\_\_\_

10. Habitat types and land use on and adjacent to the site, by acreage and percentage of total:

Shortgrass Prairie

\_\_\_\_\_

\_\_\_\_\_

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11. Dominant vegetative species in each habitat type: Desert Forbs, sage brush, narrow-leafed yuca, bunch grass spp.

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12. Average diameter breast height of dominant tree species in forested areas: None Present

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13. Will construction at this site cause fragmentation of a larger block of habitat into two or more smaller blocks? (y/n) No If yes, describe: Construction was completed near an intersection that already fragmented a larger area

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14. Is evidence of bird roosts or rookeries present? (y/n) No If yes, describe: \_\_\_\_\_

---

15. Distance to nearest wetland area (forested swamp, marsh, riparian, marine, etc.), and coastline if applicable: ~1 mile south of site, a mapped Palustrine, Emergent, Intermittently Flooded/Temporary wetland.

---

16. Distance to nearest telecommunications tower: FCC/ASR 4.7 miles NW

---

17. Potential for co-location of antennas on existing towers or other structures: YES

---

18. Have measures been incorporated for minimizing impacts to migratory birds? (y/n) YES  
If yes, describe: Tower was built less than 200' total height, and daytime guy wire bird flappers to deter migratory birds are proposed to be added.

---

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19. Has an evaluation been made to determine if the proposed facility may affect listed or proposed endangered or threatened species or their habitats as required by FCC regulation at 47 CFR 1.1307(a)(3)? (y/n) Yes If yes, present findings: No effects to Federally listed species, and no adverse effects to Colorado State listed Threatened, endangered, or candidate species.

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20. Additional information required:

## Informal Biological Assessment – Holly Tower

Trileaf performed an Informal Biological Assessment for the subject site. The purpose is to document whether the proposed undertaking will affect listed or proposed threatened or endangered species or designated critical habitat. A project description, site photographs and topographical site location maps are included elsewhere in this report.

Trileaf performed a field visit and identified surface water bodies. Using local maps in combination with an area reconnaissance the closest body of water is a small pond that is mapped as a palustrine-emergent-intermittently (temporary) flooded wetland located approximately 1.0 mile to the south of the Property.

Trileaf has researched the listed or proposed threatened or endangered species or designated critical habitat for the project area. This includes any such species that have been reported to exist within the state where the project is located. The list of federally threatened or endangered species was acquired from the U.S. Fish and Wildlife Service Colorado and is broken down by county. In addition the state listed species were acquired from Colorado Division of Wildlife. The Project site is not located within an aquatic environment and therefore any aquatic species should not be impacted. A list of the remaining species that occur in Colorado and site observations are summarized in the following table:

| Species   | Listing Status               | Species observed? | Habitat observed? | Comments   |
|---|------------------------------|-------------------|-------------------|--|
| Least Tern<br><i>Sterna antillarum</i>                                | Federal and State Endangered | No                | No                | Bare or sparsely vegetated sand, shell, or gravel beaches, sandbars, islands, and salt flats associated with rivers and reservoirs |
| Whooping Crane<br><i>Grus Americana</i>                               | State Endangered             | No                | No                | Freshwater marshes and prairies, uses grain fields, lagoons, and shallow lakes.  |
| Southwestern Willow Flycatcher<br><i>Empidonax traillii extimus</i>   | State Endangered             | No                | No                | Riparian, streamside forested habitat  |
| Plains Sharp-Tailed Grouse<br><i>Tympanuchus phasianellus jamesii</i> | State Endangered             | No                | No                | Rolling hills with scrub oak thickets and grassy glades.   |
| Mexican Spotted Owl<br><i>Strix occidentalis lucida</i>               | State Threatened             | No                | No                | Forested mountains and canyons with mature trees and high, closed canopies   |

| Species   | Listing Status                                    | Species observed? | Habitat observed? | Comments   |
|---|---|-------------------|-------------------|--|
| Burrowing Owl<br><i>Athene cunicularia</i>                      | State Threatened                                  | No                | Potentially       | Dry, open areas with no trees and short grass  |
| Lesser Prairie-Chicken<br><i>Tympanuchus pallidicinctus</i>     | State Threatened                                  | No                | Potentially       | Shrublands dominated by grasses in ungrazed or lightly grazed areas, as well as shortgrass and mixed grass prairies.     |
| Mountain Plover<br><i>Charadrius montanus</i>                   | Federally Proposed Threatened; State Candidate    | No                | Potentially       | Breeds on open plains at moderate elevations. Winters in short-grass plains and fields, plowed fields, and sandy deserts |
| Gray Wolf<br><i>Canis lupis</i>                                 | State Endangered                                  | No                | No                | Temperate forest, mountains and grasslands with large ranges of habitat  |
| Black-footed ferret<br><i>Mustela nigripes</i>                  | State Endangered; federal experimental population | No                | No                | Prairie dog colonies   |
| Grizzly Bear<br><i>Ursus arctos</i>                             | State Endangered                                  | No                | No                | Rivers and coastal mountain meadows  |
| Preble's meadow jumping mouse<br><i>Zapus hudsonius preblei</i> | State Threatened                                  | No                | No                | Heavily vegetated, shrub-dominated riparian habitats   |
| Lynx<br><i>Lynx Canadensis</i>                                  | State Endangered                                  | No                | No                | Coniferous forests near rocky areas, bogs and swamps   |
| Wolverine<br><i>Gulo gulo</i>                                   | State Endangered                                  | No                | No                | Areas at or above timberline   |
| Kit Fox<br><i>Vulpes macrotis</i>                               | State Endangered                                  | No                | No                | Sparsely-covered, semi-desert shrublands   |

The current habitat condition within the action area consists of a desert rangeland dominated by bunch grasses, narrow-leaved yucca, sage brush, and desert forbs, with areas of bare ground within an agricultural area of Prowers County, Colorado. The Property is rangeland used for grazing and is surrounded by rangeland in all directions, with County Road AA to the south, State Route 89 to the west, and a residential property located to the east. The current habitat does not qualify as critical habitat for any of the federally listed species within the county of Prowers or any state listed species within the state of Colorado. The current habitat, and the habitat prior to construction of the tower,

does not qualify as sufficient habitat to accommodate any of the above listed species except potentially the burrowing owl and mountain plover. Although the habitat does appear to be suitable habitat for the burrowing owl and the mountain plover, no adverse effect was anticipated to these species by the construction of the tower due to the small footprint of the tower within a much larger parcel of habitat. In addition, known lesser-prairie chicken populations in the past have been mapped within this area. However, vertical structures such as trees or towers are avoided by the lesser-prairie chicken and therefore the towers presence would deter the species from the Property. The Properties location near an intersection and a farmstead would have already made the location unsuitable; therefore, no adverse effect to the lesser-prairie chicken was expected from the construction of the tower.

In conclusion, none of the species have been observed within the action area, and no adverse effects to the observed habitat occurred through the construction of the tower. Therefore, based on the documents reviewed no threatened/endangered species or designated critical habitat will be impacted by the proposed project. It should be noted that this informal biological assessment was conducted in accordance with the Scope of Work and does not constitute a Section 7 Biological Assessment under the Endangered Species Act (50 CFR Part 402.01).

| Group   | Name                           | Population                       | Status                        | Lead Office                     | Recovery Plan Name           | Recovery Plan Stage |
|---------|--------------------------------|----------------------------------|-------------------------------|---------------------------------|------------------------------|---------------------|
| Birds   | Arctic peregrine Falcon (Falco |                                  | Recovery                      |                                 |                              |                     |
| Birds   | Mountain plover (Charadrius    |                                  | Proposed Threatened           |                                 |                              |                     |
| Birds   | Piping Plover (Charadrius      | except Great Lakes watershed     | Threatened                    | Office Of The Regional Director | Piping Plover Atlantic Coast | Final Revision 1    |
| Birds   | Piping Plover (Charadrius      | except Great Lakes watershed     | Threatened                    | Office Of The Regional Director | Great Lakes & Northern Great | Final               |
| Birds   | Least tern (Sterna antillarum) | interior pop.                    | Endangered                    | Columbia Ecological Services    | Least Tern (Interior Pop.)   | Final               |
| Birds   | Lesser prairie-chicken         |                                  | Candidate                     | Oklahoma Ecological Services    |                              |                     |
| Fishes  | Arkansas darter (Etheostoma    |                                  | Candidate                     | Kansas Ecological Services      |                              |                     |
| Mammals | Black-footed ferret (Mustela   | U.S.A. (specific portions of AZ, | Experimental Population, Non- | Office Of The Regional Director |                              |                     |

## Threatened & Endangered List

| COMMON NAME  | SCIENTIFIC NAME                             | STATUS* |
|--|---|---------|
| <b><u>AMPHIBIANS</u></b> ( <a href="#">/WildlifeSpecies/SpeciesOfConcern/Amphibians/</a> ) |   |         |
| Boreal Toad  | <i>Bufo boreas boreas</i>                   | SE      |
| Northern Cricket Frog  | <i>Acris crepitans</i>                      | SC      |
| Great Plains Narrowmouth Toad  | <i>Gastrophryne olivacea</i>                | SC      |
| Northern Leopard Frog  | <i>Rana pipiens</i>                         | SC      |
| Wood Frog  | <i>Rana sylvatica</i>                       | SC      |
| Plains Leopard Frog  | <i>Rana blairi</i>                          | SC      |
| Couch's Spadefoot  | <i>Scaphiopus couchii</i>                   | SC      |
| <b><u>BIRDS</u></b> ( <a href="#">/WildlifeSpecies/SpeciesOfConcern/Birds/</a> )           |   |         |
| Whooping Crane   | <i>Grus americana</i>                       | FE, SE  |
| Least Tern   | <i>Sterna antillarum</i>                    | FE, SE  |
| Southwestern Willow Flycatcher   | <i>Empidonax traillii extimus</i>           | FE, SE  |
| Plains Sharp-Tailed Grouse   | <i>Tympanuchus phasianellus jamesii</i>     | SE      |
| Piping Plover  | <i>Charadrius melodus circumcinctus</i>     | FT, ST  |
| Bald Eagle   | <i>Haliaeetus leucocephalus</i>             | SC      |
| Mexican Spotted Owl  | <i>Strix occidentalis lucida</i>            | FT, ST  |
| Burrowing Owl  | <i>Athene cunicularia</i>                   | ST      |
| Lesser Prairie-Chicken   | <i>Tympanuchus pallidicinctus</i>           | ST      |
| Western Yellow-Billed Cuckoo   | <i>Coccyzus americanus</i>                  | SC      |
| Greater Sandhill Crane   | <i>Grus canadensis tabida</i>               | SC      |
| Ferruginous Hawk   | <i>Buteo regalis</i>                        | SC      |
| Gunnison Sage-Grouse   | <i>Centrocercus minimus</i>                 | SC      |
| American Peregrine Falcon  | <i>Falco peregrinus anatum</i>              | SC      |
| Greater Sage Grouse  | <i>Centrocercus urophasianus</i>            | SC      |
| Western Snowy Plover   | <i>Charadrius alexandrinus</i>              | SC      |
| Mountain Plover  | <i>Charadrius montanus</i>                  | SC      |
| Long-Billed Curlew   | <i>Numenius americanus</i>                  | SC      |
| Columbian Sharp-Tailed Grouse  | <i>Tympanuchus phasianellus columbianus</i> | SC      |
| <b><u>FISH</u></b> ( <a href="#">/WildlifeSpecies/SpeciesOfConcern/Fish/</a> )             |   |         |
| Bonytail   | <i>Gila elegans</i>                         | FE, SE  |
| Razorback Sucker   | <i>Xyrauchen texanus</i>                    | FE, SE  |
| Humpback Chub  | <i>Gila cypha</i>                           | FE, ST  |
| Colorado Pikeminnow  | <i>Ptychocheilus lucius</i>                 | FE, ST  |
| Greenback Cutthroat Trout  | <i>Oncorhynchus clarki stomias</i>          | FT, ST  |

|  |                                    |        |
|--|------------------------------------|--------|
| Rio Grande Sucker  | Catostomus plebeius                | SE     |
| Lake Chub  | Couesius plumbeus                  | SE     |
| Plains Minnow  | Hybognathus placitus               | SE     |
| Suckermouth Minnow   | Phenacobius mirabilis              | SE     |
| Northern Redbelly Dace   | Phoxinus eos                       | SE     |
| Southern Redbelly Dace   | Phoxinus erythrogaster             | SE     |
| Brassy Minnow  | Hybognathus hankinsoni             | ST     |
| Common Shiner  | Luxilus cornutus                   | ST     |
| Arkansas Darter  | Etheostoma cragini                 | ST     |
| Mountain Sucker  | Catostomus playtrhynchus           | SC     |
| Plains Orangethroat Darter   | Etheostoma spectabile              | SC     |
| Iowa Darter  | Etheostoma exile                   | SC     |
| Rio Grande Chub  | Gila pandora                       | SC     |
| Colorado Roundtail Chub  | Gila robusta                       | SC     |
| Stonecat   | Noturus flavus                     | SC     |
| Colorado River Cutthroat Trout                                       | Oncorhynchus clarki pleuriticus    | SC     |
| Rio Grande Cutthroat Trout   | Oncorhynchus clarki virginalis     | SC     |
| Flathead Chub  | Platygobio gracilus                | SC     |
| <b><u>MAMMALS (/WildlifeSpecies/SpeciesOfConcern/Mammals/)</u></b>   |                                    |        |
| Gray Wolf  | Canis lupus                        | FE, SE |
| Black-Footed Ferret  | Mustela nigripes                   | FE, SE |
| Grizzly Bear   | Ursus arctos                       | FT, SE |
| Preble's Meadow Jumping Mouse  | Zapus hudsonius preblei            | FT, ST |
| Lynx   | Lynx canadensis                    | FT, SE |
| Wolverine  | Gulo gulo                          | SE     |
| River Otter  | Lontra canadensis                  | ST     |
| Kit Fox  | Vulpes macrotis                    | SE     |
| Townsend's Big-Eared Bat   | Corynorhinus townsendii pallescens | SC     |
| Black-Tailed Prairie Dog   | Cynomys ludovicianus               | SC     |
| Botta's Pocket Gopher  | Thomomy bottae rubidus             | SC     |
| Northern Pocket Gopher   | Thomomys talpoides macrotis        | SC     |
| Swift fox  | Vulpes velox                       | SC     |
| <b><u>REPTILES (/WildlifeSpecies/SpeciesOfConcern/Reptiles/)</u></b> |                                    |        |
| Triploid Checkered Whiptail  | Cnemidophorus neotesselatus        | SC     |
| Midget Faded Rattlesnake   | Crotalus viridis concolor          | SC     |
| Longnose Leopard Lizard  | Gambelia wislizenii                | SC     |
| Yellow Mud Turtle  | Kinosternon flavescens             | SC     |
| Common King Snake  | Lampropeltis getula                | SC     |

|  |                            |    |
|--|----------------------------|----|
| Texas Blind Snake  | Leptotyphlops dulcis       | SC |
| Texas Horned Lizard  | Phrynosoma cornutum        | SC |
| Roundtail Horned Lizard  | Phrynosoma modestum        | SC |
| Massasauga   | Sistrurus catenatus        | SC |
| Common Garter Snake  | Thamnophis sirtalis        | SC |
| <b><u>MOLLUSKS (/WildlifeSpecies/SpeciesOfConcern/Mollusks/)</u></b> |                            |    |
| Rocky Mountain Capshell  | Acroloxus coloradensis     | SC |
| Cylindrical Papershell   | Anodontoides ferussacianus | SC |

\*Status Codes:

FE = Federally Endangered

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

SC = State Special Concern (not a statutory category)

**Last Updated: 7/7/2010**

## A.2: Preliminary Consultation with FWS



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 St. Louis, Missouri 63141  
 Tel: (314) 997-6111  
 www.trileaf.com

|   |   |
|---|---|
| <b>Project:</b><br><b>Holly, CO</b><br><b>Trileaf #315250</b> | <b>Name: Laura Sauer</b>  |
|   | <b>Met with Craig Hansen, Fish and Wildlife Biologist</b>   |
|   | <b>on October 12, 2010</b>  |
|   | <b>Date: October 27, 2010</b>   |
|   | <b>Notes</b>  |
| <b>Approximately 10:30 to 11AM</b>                            |   |
|   | <b>Gave Mr. Hansen the card from my camera so he could download all the pictures</b>  |
|   | <b>Gave Mr. Hansen a copy of the submittal form for the F&amp;W</b>   |
|   | <b>Gave Mr. Hansen a copy of the informal biological assessment (IBA) that was completed by Jennet Nguyen</b>   |
|   | <b>I pointed out the areas of concern in regards to Ms. Nguyen's assessment</b>   |
|   | <b>Mr. Hansen noted that he would like for the state listed and candidate/proposed species to be included within the IBA</b>  |
|   | <b>Mr. Hansen noticed that the Lesser Prairie Chicken was not listed within the IBA. He then opened a map of the Lesser Prairie Chickens' habitat. It was noted that the tower was located well within the mapped habitat boundaries</b>    |
|   | <b>Mr. Hansen went over the IBA and marked what species needed to be added and "corrected" on if the tower will affect certain species, mainly the Piping Plover, Burrowing Owl, and the Lesser Prairie Chicken</b>                         |
|   | <b>Mr. Hansen stated that the Lesser Prairie Chicken did not like towers or vertical structures due to the fact that prey could hunt from them.</b>   |
|   | <b>It was mentioned that the Lesser Prairie Chicken did not like towers of vertical structures due to the fact that vertical structures are areas for prey to hunt</b>  |
|   | <b>I asked about diversion options and Mr. Hansen said that would be preferred</b>  |
|   | <b>I spoke about lighting and stated that I was not sure of the exact color. He said that as long as it was not a red strobe, it should be ok. He wanted us to explore why it was lit, if it was, and if the light could be turned off.</b> |
|   | <b>Mr. Hansen wanted the list of information from the Prowers County list to be included</b>  |
|   | <b>Mr. Hansen kept stating that he wanted everything in the F&amp;W guidelines to be followed. He gave me a copy of these</b>   |

|  |  |
|--|--|
|  | <b>guidelines</b>  |
|  | <b>Mr. Hansen revisited the species lists to reiterate the importance of the tower possibly being an affect on the three above mentioned species</b>   |
|  | <b>Mr. Hansen wrote the address and contact in which to send the resubmitted information</b>   |
|  | <b>Mr. Hansen wanted a corrected IBA, cover letter, submittal form, pictures, and the tower ASR information to be included</b>   |
|  | <b>I stated that our biologist is very conscientious, and she could get the information in the mail by Friday, 10/15</b>   |
|  | <b>Mr. Hansen said that since I had an informal meeting with him and that he was aware of the project, we should have a response soon</b>  |
|  | <b>The tone of the conversation lead me to believe that since the tower was already constructed, there would be no impacts to threatened or endangered species—a favorable response from the F&amp;W</b> |

**From:** [Laura Sauer](#)  
**To:** [Jennet Nguyen](#)  
**Subject:** FW: TA-0025 CPA 0005 | Holly Tower  
**Date:** Thursday, October 21, 2010 3:06:23 PM

---

-----Original Message-----

From: Craig\_Hansen@fws.gov [[mailto:Craig\\_Hansen@fws.gov](mailto:Craig_Hansen@fws.gov)]  
Sent: Thursday, October 21, 2010 3:05 PM  
To: Laura Sauer  
Subject: RE: TA-0025 CPA 0005 | Holly Tower

Thank you! Message received.

Laura Sauer  
<l.sauer@trileaf.com>  
10/21/2010 02:03 PM  
To  
"Craig\_Hansen@fws.gov"  
<Craig\_Hansen@fws.gov>  
cc  
Jennet Nguyen  
<J.Nguyen@trileaf.com>  
Subject  
RE: TA-0025 CPA 0005 | Holly Tower

Good afternoon, Craig.

I have attached a letter from Laura Pettus with the Dept of Commerce. It states why we are currently completing the compliance work with this tower.  
I have also attached a form from the Colorado Dept. of Homeland Security.  
It states the need for the tower and its intended use.

If you need any other information, please don't hesitate to contact us.

Laura Sauer

-----Original Message-----

From: Craig\_Hansen@fws.gov [[mailto:Craig\\_Hansen@fws.gov](mailto:Craig_Hansen@fws.gov)]  
Sent: Thursday, October 21, 2010 2:54 PM  
To: Laura Sauer  
Subject: TA-0025 CPA 0005 | Holly Tower

Hi Laura:

The Service is still in the process of reviewing Trilead's submitted materials for the Holly Tower, Trileaf Project Number 315250. In our telephone conversation earlier today, you mentioned that the federal agencies involved in this project include the Department of Homeland Security (Community Preparedness Program), the Department of Commerce (NTIA), and the Federal Communications Commission. So that the Service's project file and tracking system accurately reflects the Federal agencies involved, could you please provide copies of any official agency correspondence associated with this tower?

Please deliver in any form most convenient for you. Thank you,

Craig Hansen  
Colorado Field Office

(Embedded image moved to file: pic00041.jpg) [attachment "Letter from Laura Dept of Commerce.pdf" deleted by Craig Hansen/R6/FWS/DOI] [attachment "Holly Radi Tower and Site Capacity Upgrades.pdf" deleted by Craig Hansen/R6/FWS/DOI]

Forwarded by Craig Hansen/R6/FWS/DOI on 10/21/2010 03:05 PM -----

Craig  
Hansen/R6/FWS/DOI

10/21/2010 02:08  
PM

[Aaron.Goldschmidt@fcc.gov](mailto:Aaron.Goldschmidt@fcc.gov)

To

cc

Subject

TA-0025 CPA-0005 | Trileaf 150'  
Tower in Prowers County, Colorado  
MAPS 1

Hello Aaron:

This email references our telephone conversation on October 21, 2010 regarding a biological assessment (BA) for a communication tower in Prowers County, Colorado (ASR Registration # 1268918; ASR File # A0642404). The U.S. Fish and Wildlife Service (Service) received the final BA and cover letter from Trileaf Environmental and Property Consultants (Trileaf) on October 19, 2010. As they prepare an Environmental Assessment (EA), Trileaf requests "concurrence" from the Service that the existing 150-foot tall, guyed tower will have no effect on federally listed species or critical habitats. These documents are attached.

As we discussed, the ASR Registration data for this tower suggests that the FCC automatically authorized this tower on July 3, 2009, and mailed an automated "Construction Reminder, Reference 656108" letter to the on July 7, 2010. The FAA Issue Date was June 16, 2009. The FCC likely provided automatic authorization when the applicant selected "no environmental effect" on the registration application. The FCC has yet to receive notice of final construction, in violation of the 24-hour notice requirement. The tower has indeed been built; I've attached the site photographs of the tower that were provided by Trileaf with their BA.

This tower concerns the Service because it is situated within the mapped occupied range, a known breeding area, and known wintering range for the lesser prairie chicken (*Tympanuchus pallidicinctus*), a candidate for listing under the Endangered Species Act of 1973. I've attached Service generated maps that illustrate the tower's proximity to these habitat areas for the lesser prairie chicken. The project area also provides suitable habitat for the proposed-threatened mountain plover (*Charadrius montanus*) and the State-threatened burrowing owl (*Athene cunicularia*). The Service has no record of any previous consultations for this tower, whether for initial scoping or construction. Research indicates that the lesser prairie chicken avoids vertical structures,

like trees, windmills or communications towers, as they may provide perches for avian predators and increase predation. The Service prefers that communications towers not be sited within these habitat areas, especially near production areas, or feature guy wires.

I emailed Laura Sauer at Trileaf asking her to provide copies of any Federal correspondence associated with this tower. Hopefully she provides the NTIA document explaining that the tower is noncompliant. Perhaps this is the letter that triggered the EA and letter to the Service.

Thank you for your time. At some point, I'd appreciate discussing section 7 requirements for wireless communications towers with you, as this remains a source of confusion for our field offices.

Sincerely,

Craig Hansen  
Fish and Wildlife Biologist  
Colorado Field Office



## Telephone Correspondence

Page 1 of 2

Date: October 27, 2010 Time: 1:50 pm Central Time Zone

Project Name: Holly Tower Trileaf Project No.: 315250

Subject: FWS update on IBA and impact of T&E species and migratory birds.

Name: Craig Hansen , Fish and Wildlife Biologist

Company: US Fish and Wildlife Service

Phone No.: 303-236-4749

Note:

I spoke to Mr. Hansen in regards to the Broadband tower south of Holly Colorado. He stated that he had received the information we had mailed to him and it looked complete. He also mentioned that he has been working on the project but his statements at this point would be unofficial, and the USFWS official response and recommendations for the project should be complete within another week or so.

Mr. Hansen stated that they are working on mitigation recommendations for the tower since it has already been constructed and he is assuming cannot be deconstructed.

Preliminary mitigation recommendations include bird diverters as well as an annual inspection of the diverters to replace as they decay. In addition, they may recommend PVC pipe be installed on the lower reaches of the guy wire to prevent mortality of ground birds such as the Mountain Plover and the Burrowing Owl. However, Mr. Hansen's main

concern is potential effects to the Lesser Prairie-Chicken, a state threatened species and a federal candidate species. He stated that the tower is located in known breeding and winter ranges for this state. In addition, he said that research has shown that this species is deterred from areas with any vertical structures as they provide locations for predators such as hawks. Because this location is a sensitive area for this species he said that was not certain at this point if the FWS would be able to give a “no significant impact” for the project.

He also mentioned that he was not certain as to how the tower was built without these reviews in the first place and thus had contacted the FCC. In addition the NTIA has contacted the FWS because the tower is being reimbursed by the PSIC grant. He believes that the tower should have had a more in depth environmental review prior to construction and is not sure why it failed to go through these procedures. Mr. Hansen was very open to questions and stated that he was available by phone.

---

Recorded By: Jennet C. Nguyen



## Telephone Correspondence

Page 1 of 2

Date: November 1, 2010 Time: 3:40 pm Central Time Zone

Project Name: Holly Tower Trileaf Project No.: 315250

Subject: Questions on possible mitigation factors

Name: Craig Hansen , Fish and Wildlife Biologist

Company: US Fish and Wildlife Service

Phone No.: 303-236-4749

Note:

I spoke to Mr. Hansen in regards to the Broadband tower south of Holly Colorado. I asked him when the survey information for the Lesser Prairie Chicken (LPC) map was last updated. He stated that the map is maintained by the Colorado Division of Wildlife Natural Resources and was updated last in September of 2010.

I also asked Mr. Hansen about some additional mitigation factors including conservation easements on state land. He stated that the most beneficial easement would be land that connects to the existing range to provide a larger patch of habitat as well as areas away from human disturbances including vertical structures. Mr. Hansen believes that the area in Prowers County near the existing habitat range is mostly privately owned. Therefore, he mentioned that another possibility would be to increase habitat where the shinnery oak is present, which would increase good habitat for this species perhaps in other areas. He

is not aware if this type of habitat is present down in Prowers County, as he has not been in that area very much. But he did also state that he has messages out to state biologists from Prowers County as well as a contact for the Partners with FWS that works with land owners in the state for conservation issues. Mr. Hansen has not heard back from these calls at this time. He continues to work on possible mitigation factors, and appreciates our efforts as well.

---

Recorded By: Jennet C. Nguyen



## Telephone Correspondence

Page 1 of 2

Date: November 12, 2010 Time: 10:30apm Central Time Zone

Project Name: Holly Tower Trileaf Project No.: 315250

Subject: Questions on possible mitigation factors

Name: Craig Hansen , Fish and Wildlife Biologist

Company: US Fish and Wildlife Service

Phone No.: 303-236-4749

Note:

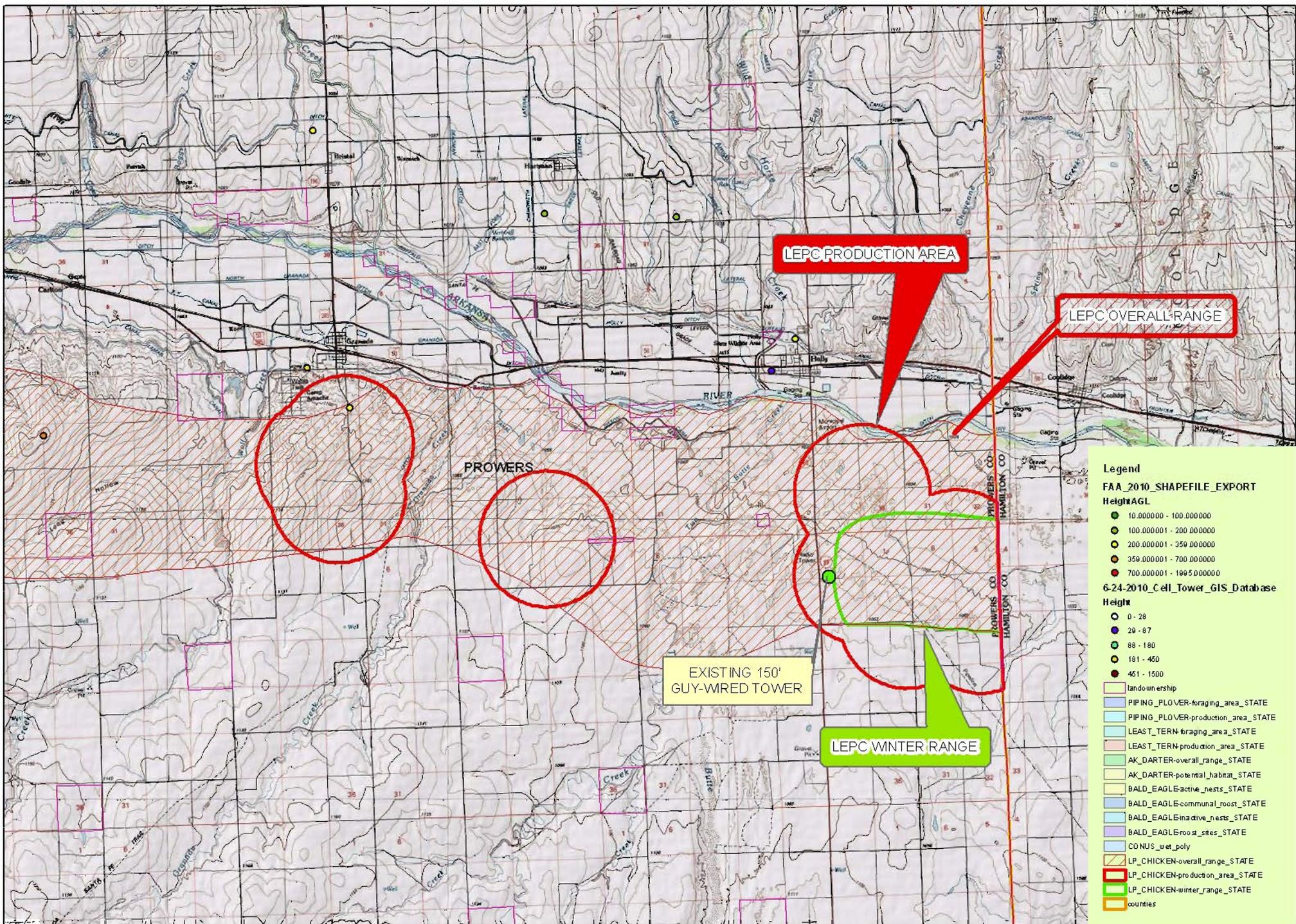
I spoke to Mr. Hansen in regards to the Broadband tower south of Holly Colorado. I asked him about the potential mitigation options that the FWS has determined for the Lesser Prairie Chicken (LPC). He mentioned that nothing has been finalized, but bird diverters on the guy wire tower are still a good mitigation factor that would benefit more species than just the LPC. He stated that the main mitigation they are trying to get worked out is "ground enhancement projects." Mr. Hansen confirmed that he had received my email about the Town of Holly's old tower site that is being researched as a potential conservation easement for this project. He stated that the tower site's location is very beneficial, and if the size is at least 3 acres that is good compensation. He stated before the FWS could determine if the site is a viable option for the LPC conservation easement they would need to know the surrounding land use, who owns it and what they

plan on using it for in the future to avoid potential fragmentation of the landscape, as well as what the current on ground condition of the site is. If the site is viable then the ground enhancement project would include efforts to restore the area to native vegetation and rehabilitate any other disturbances left behind from the tower. He also stated that a cattle management agreement with the land owner is vital to maintain a level of disturbance suitable for the LPC. For this option to work as mitigation however, the ground enhancement project would require some type of long term management to maintain the restoration of the habitat. Mr. Hansen also stated that the FWS does not frequently get involved in the conservation easement part, that it is usually directed to the Nature Conservancy or the Division of Wildlife.

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Recorded By: Jennet C. Nguyen

### A.3: Lesser Prairie Chicken Habitat Map



65412-2011-TA-0025 CPA-0005 | TRILEAF | HOLLY TOWER | 150 FT | DEP OF HOMELAND SECURITY

PROWERS COUNTY | GUY-WIRED NOT LIT | FCC REG #s 1268584 & 1268918

CRAIG HANSEN | USFWS CFO | craig\_hansen@fws.gov | 21 OCT 2010 | UTM NAD83



#### A.4: Mitigation Letter



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Ecological Services  
Colorado Field Office  
P.O. Box 25486, DFC (65412)  
Denver, Colorado 80225-0486



IN REPLY REFER TO:  
ES/CO: Cell Tower / NTIA / Holly Tower  
TAILS: 65412-2011-TA-0025

MAR 3 2011

Laura Pettus  
United States Department of Commerce  
National Telecommunications and Information Administration  
1401 Constitution Avenue  
Washington, DC 20230

Dear Ms. Pettus:

This letter responds to the U.S. Department of Commerce, National Telecommunications and Information Administration's (NTIA) request for technical assistance from the U.S. Fish and Wildlife Service (Service) regarding the "Holly" telecommunications tower in Prowers County, Colorado. As the lead Federal agency administering Federal funds through the Public Safety Interoperable Communications (PSIC) Grant Program, the NTIA seeks to award a post-construction, reimbursement grant to the State of Colorado, Governor's Office of Homeland Security, to fund the Holly tower retroactively.

During the PSIC grant application process, the NTIA determined that the Holly tower did not comply with the National Environmental Policy Act of 1969 (NEPA), as the applicants constructed the tower without an environmental and historic preservation review. The PSIC's Programmatic Environmental Assessment specifically dictates that new, guyed towers require site-specific environmental assessments under NEPA. In order to work with the State of Colorado to rectify their noncompliance, the NTIA requests the Service's technical assistance identifying potential conservation solutions for the 150-foot, guy-wired Holly tower that minimize its impacts on natural resources, specifically the lesser prairie chicken (*Tympanuchus pallidicinctus*).

The Holly tower exists within the overall range and occupied habitats of the lesser prairie chicken, a State-threatened species in Colorado (CO ST § 33-6-101 - 142) and a Federal candidate for listing under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C § 1531 et seq.). The Holly tower is also less than one mile from active lesser prairie chicken leks, important breeding areas for the species. On November 10, 2010, the Service determined that the overall magnitude of threats to the lesser prairie chicken throughout its range is high, and that threats are ongoing and imminent (75 FR 69243). However, higher priority listing actions preclude the issuance of a proposed rule to list the lesser prairie chicken as threatened or endangered under the ESA, and the species remains a candidate for listing with a listing priority

number of 2. As a candidate species, the lesser prairie chicken is not protected by the ESA, but the Service routinely encourages agencies and applicants to address, and minimize, potential impacts to the species resulting from their actions, thereby reducing the likelihood of eventual listing.

Biologists estimate that the historic range occupied by the lesser prairie chicken declined by 92 percent since the 1800s. In Colorado, populations are restricted to the southeast corner of the state and occupy small portions of Baca, Cheyenne, Prowers, and Kiowa Counties. The most serious threat to the lesser prairie chicken remains the loss of habitat following the conversion of native rangelands to agricultural fields. Additional threats include the cumulative degradation and fragmentation of habitats caused by grazing, energy development, herbicides, and structural or transportation developments (75 FR 69243).

Structural fragmentation of lesser prairie chicken habitats results from the construction and operation of vertical structures, like communications towers, utility lines, and fences. Research indicates that the lesser prairie chicken avoids vertical structures due to visual obstructions on the landscape or the increased potential for predation by raptors. In general, prairie grouse exhibit a low tolerance for tall structures, and structure avoidance may lead to the complete abandonment of otherwise suitable habitats. The size of the avoidance footprint caused by vertical structures varies, but based on behavioral avoidance at wind turbines, the Service recommends that a five mile, "no construction" buffer zone be established around active prairie grouse leks. The Service's April 2010 "Species Assessment and Listing Priority Assignment Form" for the lesser prairie chicken provides a detailed summary of the habitat avoidance and abandonment caused by vertical structures. This document is available for download from our website at the following address:

[http://ecos.fws.gov/docs/candidate/assessments/2010/r2/B0AZ\\_V01.pdf](http://ecos.fws.gov/docs/candidate/assessments/2010/r2/B0AZ_V01.pdf)

Additionally, the construction of new communications towers creates a potentially significant impact on migratory birds, especially some 350 species that migrate at night. Migratory birds are protected by the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C § 703 et seq.). Collisions with communications towers kill an estimated four-to-five million birds per year. Responding to the widespread proliferation of new communications towers throughout the United States, the Service developed interim guidelines for the siting, construction, operation, and decommissioning of communications towers. These guidelines recommend, for example, that if collocation of antennas on existing structures is not possible, new towers should avoid known bird concentration areas, breeding, feeding, or roosting areas, known movement flyways, or the habitats of threatened or endangered species. Tower projects should also minimize habitat loss and avoid designs with lighting, guy wires, or other features that may affect migratory birds or other resources. If guy wires must be used, daytime visual markers, or bird flight diverters, should be placed on the wires to prevent collisions. These guidelines and a Tower Site Evaluation form are available for download from our website at the following address:

<http://www.fws.gov/HabitatConservation/CommunicationTowers.html>

### **History of the Proposed Action:**

Laura Sauer, Project Scientist with Trileaf Environmental Consultants, first contacted the Service in person about the Holly tower on October 12, 2010, and delivered a site-specific environmental assessment (EA) to Craig Hansen of the Colorado Field Office. At this meeting, Mr. Hansen rejected Trileaf's EA because it failed to adequately describe the project purpose or identify the nexus triggering the request for consultation. At this time, Ms. Sauer believed that the Department of Commerce intended to transfer "authority" of the already constructed Holly tower to the Federal Communications Commission (FCC). Trileaf used the Service's list of federally threatened, endangered, proposed, and candidate species for Prowers County and determined that the Holly Tower would not affect these species. Trileaf cited the lack of suitable habitats within or near the project area as a basis for their "no effect" determination. During the meeting with Ms. Sauer, Mr. Hansen reviewed Trileaf's EA, the photographs of the project area, species distribution and occurrence maps, and subsequently recommended that Trileaf reanalyze their determinations and resubmit their EA for the Holly tower.

On October 19, 2010, the Service received a revised EA from Jennet Nguyen, Environmental Specialist with Trileaf (Project Number 315250). Ms. Nguyen's cover letter requested assistance addressing the presence or absence of natural resources in the project area, including species designated or proposed as threatened or endangered. The revised EA, or "Informal Biological Assessment", referenced the Service's county list of federally listed, proposed, and candidate species, and the Colorado Division of Wildlife's list of State-listed species. The revised EA indicated that Trileaf observed potential habitat for the lesser prairie chicken, State-threatened burrowing owl (*Athene cunicularia*), and proposed-threatened mountain plover (*Charadrius montanus*) within the project area. The revised EA also reported "known lesser prairie chicken populations in the past have been mapped" within the project area. Trileaf concluded that because vertical structures, like trees or towers, are strongly avoided, the Holly tower "would deter" the lesser prairie chicken from the project area. Additionally, a nearby intersection and farmstead "would have already made the location unsuitable," and therefore "no adverse effect to the lesser prairie chicken was expected from the construction of the tower." Therefore, Trileaf determined that the construction of the Holly tower resulted in no adverse effects to the observed habitat and that no threatened or endangered species or designated critical habitats "will be impacted by the proposed project."

The revised EA still did not identify the lead Federal agency or adequately describe the proposed action. According to the FCC's Antenna Structure Registration database, the FCC granted a construction license on July 2, 2009, but did not receive notification of final construction until November 29, 2010. The recently updated registration information from the FCC's database indicates that construction ended on September 9, 2009, thereby negating the FCC's issuance of a license or permit as the initial Federal nexus triggering Trileaf's request for consultation with the Service. The FCC or its designated non-Federal representatives never contacted the Service during the initial tower licensing process administered by the FCC. Trileaf's October 2010 request represents the first correspondence received by the Service related to the Holly tower.

Following requests for additional information from Trileaf and the FCC, the Service received a copy of the NTIA's official correspondence to the State of Colorado dated August 31, 2010, from Trileaf. This letter identified the NTIA as the lead Federal agency now working on the

PSIC grant for the Holly tower. This letter also alerted the State of Colorado to their noncompliance under NEPA and the PSIC Programmatic Environmental Assessment, as construction of the 150-foot tall, guy-wired tower occurred prior to the completion of an environmental and historic preservation review. In this letter, the NTIA informed the State of Colorado that they were willing to work with the State to rectify the noncompliance. The NTIA suggested that the applicants immediately prepare a site-specific EA for the Holly tower, or return the PSIC grant funds and instead use only non-Federal funds for the project costs. The tower proponents hired Trileaf to complete the EA.

With the correct lead Federal agency and proposed Federal action identified, the Service contacted the NTIA to establish communication and discuss the EA for the Holly tower. The Service explained that it does not consult on projects “after-the-fact.” As a result, the Service cannot make a determination or provide concurrence with Trileaf’s “no effect” determinations for the Holly tower. Instead, the NTIA requested the Service’s technical assistance identifying conservation solutions at the Holly Tower that limit its impact on the lesser prairie chicken, migratory birds, and other natural resources.

#### **“After-the-Fact” Consultations:**

The Service does not make ESA determinations “after-the-fact”, or following the completion of a proposed action, because we are unable to assess impacts to our trust resources that may have already occurred during implementation. As instituted by the ESA, cooperation between Federal agencies, applicants, and the Service effectively integrates the proposed activities with the conservation needs of limited resources, before the proposed actions are fully designed or executed. Consultations preemptively address threats to listed, proposed, and candidate species that may result from Federal programs and activities, providing an opportunity for the Service, the action agencies, and applicants to develop collaborative solutions to conservation challenges, while working together toward the recovery of listed species and their habitats. Without documented environmental assessments, biological reviews, or collaboration through consultation, the Service assumes that already impacted habitats were of high quality and that the unauthorized action potentially impacted species.

The Service did not have an opportunity to examine the Holly tower project prior to construction. Therefore, the Service is unable to make a determination or provide concurrence with Trileaf’s determinations for the Holly tower. However, based on information provided by Trileaf, the Colorado Division of Wildlife, and the Service’s knowledge of the project area, the Service disagrees that the construction and operation of the Holly Tower has no adverse effect on the lesser prairie chicken or its habitats. The Holly tower exists within the known occupied range for the lesser prairie chicken and within one mile of an active lek. The 150-foot, guyed tower instituted a substantial zone of avoidance around the tower, effectively deterring the species within and outside the project area, and potentially resulted in the abandonment of otherwise suitable habitats, including a nearby active lek. As a tall, vertical structure on the prairie landscape, the Holly tower likely impacted the lesser prairie chicken and further reduces and fragments habitats in Prowers County.

### Conservation Recommendations:

Throughout the informal correspondence with Trileaf and the NTIA, the Service recommended that the tower proponents review the Service's communications tower guidelines, consider decommissioning the Holly tower at its current location, and instead collocate antennas on existing towers in the town of Holly. Relocating the Holly tower outside of lesser prairie chicken habitats and away from active leks would remove the permanent zone of avoidance caused by the tall, vertical structure. However, according to the NTIA, the Holly tower cannot be decommissioned or moved. Additionally, Trileaf indicated that the Holly tower requires guy wires for support in high winds. The Service also stated its preference that remediation opportunities be "on-the-ground" habitat improvement projects designed to offset the tower's impacts within the surrounding area.

Based on the best available information, including information provided by Trileaf and the NTIA, scientific and technical literature, and extensive collaboration with our natural resource partners and other organizations, the Service provides the following conservation recommendations for your consideration, in lieu of removing the Holly tower from lesser prairie chicken habitats:

1. The Service recommends that the NTIA and the grantee work with the Prowers Conservation District (PCD), a division of the Colorado State Conservation Board, Colorado Department of Agriculture, to develop deployable remediation solutions for the Holly tower. The PCD is based in Lamar, Colorado, and can be reached at (719) 336-3437, extension 3. More information about the PCD is available on their website at the following address:

<http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1178305637596>

The PCD is an established organization committed to the protection, stewardship, and conservation of natural resources within the district and on surrounding lands. The PCD receives, manages, and provides funding for various projects throughout the range of the lesser prairie chicken. With project and funding mechanisms already in place, the PCD can immediately apply resources to maximize benefits for the lesser prairie chicken and its habitats near the Holly tower and throughout Prowers County. Considering the continued threat of habitat loss and fragmentation caused by a vertical structure, the Service believes that the PCD can most effectively benefit the species through "on-the-ground" habitat improvement projects, like cattle rotations or interseeding, in suitable areas less influenced by a vertical avoidance zone. Furthermore, home ranges for the lesser prairie chicken are large, often exceeding 4,000 acres, and the PCD's programs are more effective and economical than rehabilitating the three-acre "Old Holly Tower" site or creating small, but expensive, conservation easements.

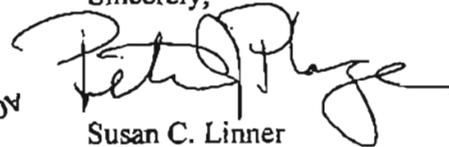
Common consensus from State and Federal partners, and organizations engaged in conservation programs for the lesser prairie chicken in Colorado, suggests that a minimum of \$20,000 are required to make any sizable, lasting improvements in habitat conditions that benefit the species and promote recovery. In 2006, this funding provided habitat improvements for approximately 400 acres. Otherwise, habitat rehabilitation or improvement efforts merely act at small scales that are not conducive to the large home

ranges of the lesser prairie chicken, and do little to benefit the species or prevent its listing as threatened or endangered.

2. As outlined in the Service's aforementioned guidelines for communications towers, the applicants should place bird flight diverters and other marking devices on the guy wires at the Holly tower to prevent collisions with migratory birds. Service and Colorado Division of Wildlife personnel or researchers from the Communications Tower Working Group should be allowed to access the Holly tower at any time in order to assess impacts and gain information.

The Service recognizes and appreciates the NTIA's and the State of Colorado's dedication to conserving natural resources. If the Service can be of any additional assistance, please contact Craig Hansen of the Colorado Field Office at (303) 236-4749.

Sincerely,



ACTING FOR

Susan C. Linner  
Colorado Field Supervisor

cc: NTIA, Laura Pettus, [lpettus@ntia.doc.gov](mailto:lpettus@ntia.doc.gov)  
State of Colorado, John Dombaugh, [john@bentcounty.net](mailto:john@bentcounty.net)  
State of Colorado, Riley Frazee, [BacaEOC@aim.com](mailto:BacaEOC@aim.com)  
Trileaf, Jennet Nguyen, [J.Nguyen@trileaf.com](mailto:J.Nguyen@trileaf.com)

cc: USFWS, Craig Hansen

APPENDIX B: Section 106 Documentation

B.1: Colorado SHPO Submittal

B.2: SHPO Response

B.3: Tribal Correspondence

## B.1: Colorado SHPO Submittal



10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

November 23, 2010

Colorado Historical Society  
1300 Broadway, Denver, CO 80203  
Phone: 303-866-3355  
**Attn: Mr. Edward C. Nichols, SHPO**

**RE: Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**  
Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W

Dear Mr. Nichols:

Trileaf Corporation is in the process of completing a NEPA/Section 106 review at the referenced property. The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 400' long and 12' wide. The tower was built for emergency purposes in the past year. The owner/builder was unaware of Section 106 requirements and procedures and the tower was not properly reviewed prior to construction. The antenna will be licensed by the Federal Communications Commission (FCC).

In accordance with the *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission*, dated September 2004, a cultural resource investigation has been conducted. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed, or eligible for listing on the State or National Registers of Historic Places, or located in or on an Indian Religious Site.

Summary reports of this investigation, maps, photographs and other information are provided in the attached Form 620. As noted in Attachment 10, no historic properties listed in or eligible for inclusion in the National Register of Historic Places are located within the APE for this project. In addition, no archaeological sites or artifacts were encountered during the archaeological survey.

We really appreciate your co-operation in this regard and anticipate your concurrence with these findings. Please call me at (314) 997-6111 if you need any additional information or have any questions. Thank you for your assistance.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist



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**Cultural Resources Overview  
TRILEAF Corporation Site# 315250  
Holly, Prowers County, Colorado**

by

Kenneth J. Basalik, Ph.D.

and

Mary Alfson Tinsman

*Cultural Heritage Research Services, Inc.*  
403 East Walnut Street  
North Wales, Pennsylvania 19454

**Principal Investigator:**

Kenneth J. Basalik, Ph.D.  
*Cultural Heritage Research Services, Inc.*  
403 East Walnut Street  
North Wales, PA 19454  
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**Prepared for:**

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J.Nguyen@trileaf.com

  
Kenneth J. Basalik, Ph.D.

11/19/10  
Date

**Federal Agency:** Federal Communications Commission

November 2010

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Email: [KBasalik@chrsinc.com](mailto:KBasalik@chrsinc.com)

**Cultural Resources Overview of TRILEAF Corporation Site# 315250 – Holly, Prowers County, Colorado (N 37° 59' 7.9"; W 102° 6' 48")**

*Subject Property*

- The subject property does not contain any historic buildings. It has not previously been listed or determined eligible for listing in the National Register of Historic Places.

*Section 5: Applicant's Determination of Direct Effects*

- a. Direct Effects: There is a finding of No Historic Properties Affected within the Area of Potential Effects (APE) for Direct Effects.
- b. Visual Effects: There is a finding of No Historic Properties Affected within the APE for Visual Effects.

*Attachment 7; Area of Potential Effects (APE)*

- a. The APE for Direct Effects was determined based on the potential ground disturbance and is limited to the location of the tower, equipment box and access road.
- b. The APE for Visual Effects is the 1.5-mile radius surrounding the site. This APE was determined based on the specifications established in the Nationwide Programmatic Agreement and on the character of the surrounding area.

*Attachment 8; Visual Effects APE*

- a. No historic properties were located within the Visual Effects APE.

*Attachment 9; Direct Effects APE*

Considered to be the Subject Location

- a. The subject property does not contain any historic buildings. It has not previously been listed or determined eligible for listing in the National Register of Historic Places.
- b. An archaeological survey was performed for the TRILEAF Corporation Site# 315250 – Holly. The tower is situated approximately 0.37 kilometers (0.23 miles) northeast from the intersection of Colorado State Highway 89 and CR AA in an active agricultural field in Holly, Prowers County, Colorado. The project consists of a 45.72-meter (150-foot) guyed telecommunications tower with an equipment box and an approximately 103-meter (340-foot) access road. The archaeological survey was conducted to ensure that potentially significant archaeological resources are not located within the area impacted by the tower. Eight shovel test pits were excavated. No archaeological sites were identified and no additional archaeological work is recommended.

**Resources used in Cultural Resources Overview of TRILEAF Corporation Site# 315250 – Holly, Prowers County, Colorado (N 37° 59’ 7.9’’; W 102° 6’ 48’’)**

- Site location information provided by TRILEAF Corporation
- Map and Survey form search conducted by the Colorado Historical Society Office of Archaeology and Historic Preservation, Colorado Historic Preservation Office on November 2, 2010.
- Aerial map from *Google Earth*, accessed via <http://earth.google.com> on October 29, 2010
- United States Geological Survey Map, 1966a: *Durkee Creek NW, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- United States Geological Survey Map, 1966b: *Durkee Creek NE, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- United States Geological Survey Map, 1978a: *Holly West, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- United States Geological Survey Map, 1978b: *Holly East, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.



**Photograph 1:** View of the tower, facing north.



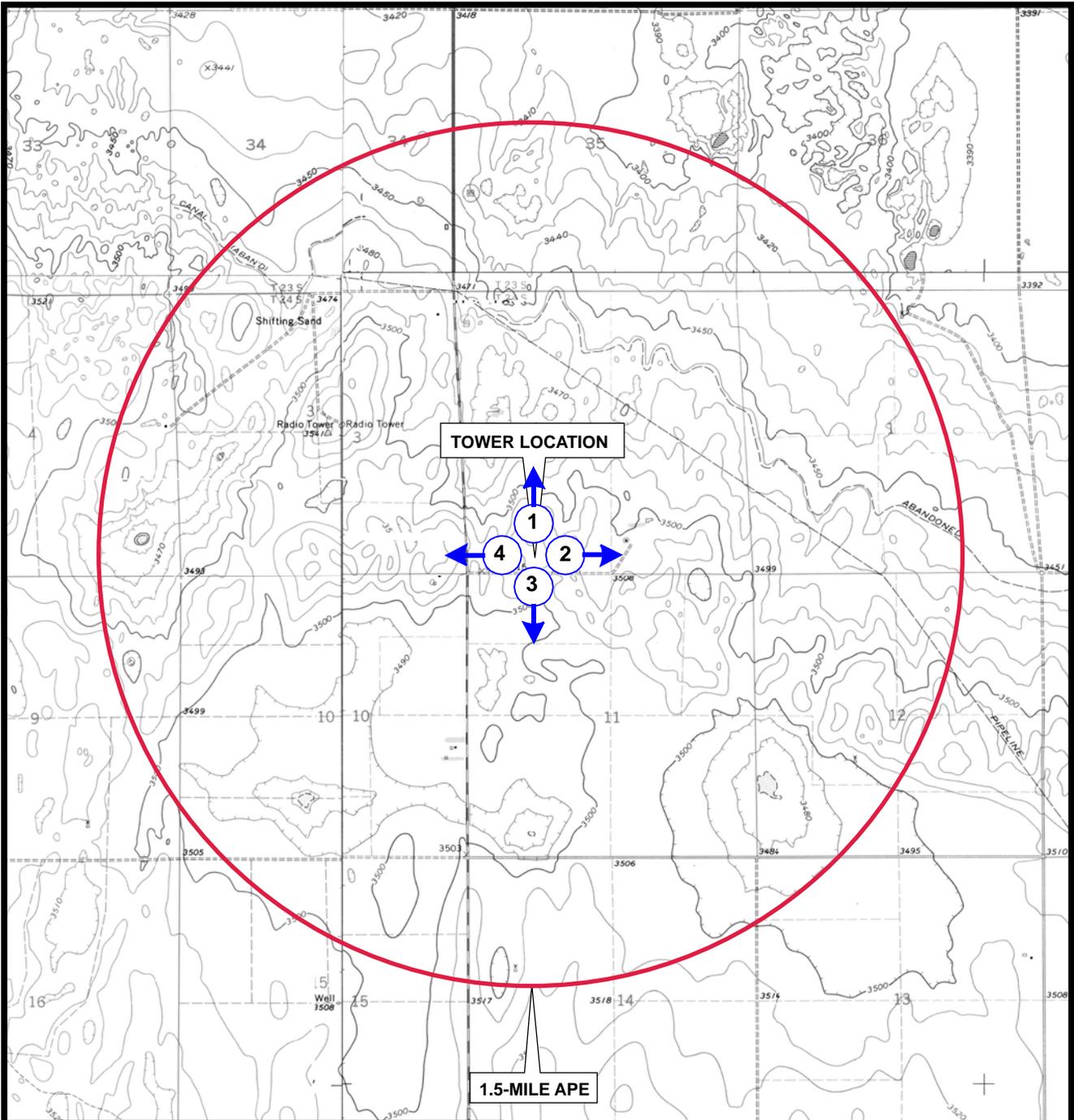
**Photograph 2:** View of the tower, facing east.



**Photograph 3:** View of the tower, facing south.

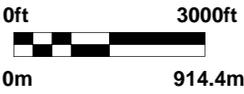


**Photograph 4:** View of the tower, facing west.



 **AREA OF POTENTIAL EFFECTS**  
 **PHOTO LOCATION**

1.5-MILE APE

|   | SCALE  | SOURCE   |
|---|--|--|
|  | <br>Prepared by CHRIS, Inc. | USGS 1966a<br>DURKEE CREEK NW, CO-KS<br>USGS 1966b<br>DURKEE CREEK NE, CO-KS<br>USGS 1978a<br>HOLLY WEST, CO-KS<br>USGS 1978b<br>HOLLY EAST, CO-KS |

**PROJECT LOCATION MAP**



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**Phase I Archaeological Survey  
TRILEAF Corporation Site# 315250  
Holly, Prowers County, Colorado**

by

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11/19/10  
Date

**Federal Agency:** Federal Communications Commission

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## **ABSTRACT**

This archaeological summary documents the results of an archaeological survey performed for the TRILEAF Corporation Site# 315250. The existing tower location is situated approximately 0.1 kilometers (0.06 miles) north of County Road Aa in an agricultural field in Holly, Prowers County, Colorado. This archaeological survey was conducted to ensure that potentially significant archaeological resources are not located within the area impacted by the existing tower. This document is being submitted in compliance with the Federal Communications Commission (FCC) “Nationwide Programmatic Agreement For Review Of Effects On Historic Properties For Certain Undertakings Approved By The Federal Communications Commission” (FCC 2004). The information is being submitted as part of the required New Tower (NT) Submission Packet, Form 620. Eight shovel test pits were excavated. No archaeological sites were identified, and no additional archaeological work is recommended.

## **INTRODUCTION TO THE PROJECT AND AREA OF POTENTIAL EFFECTS**

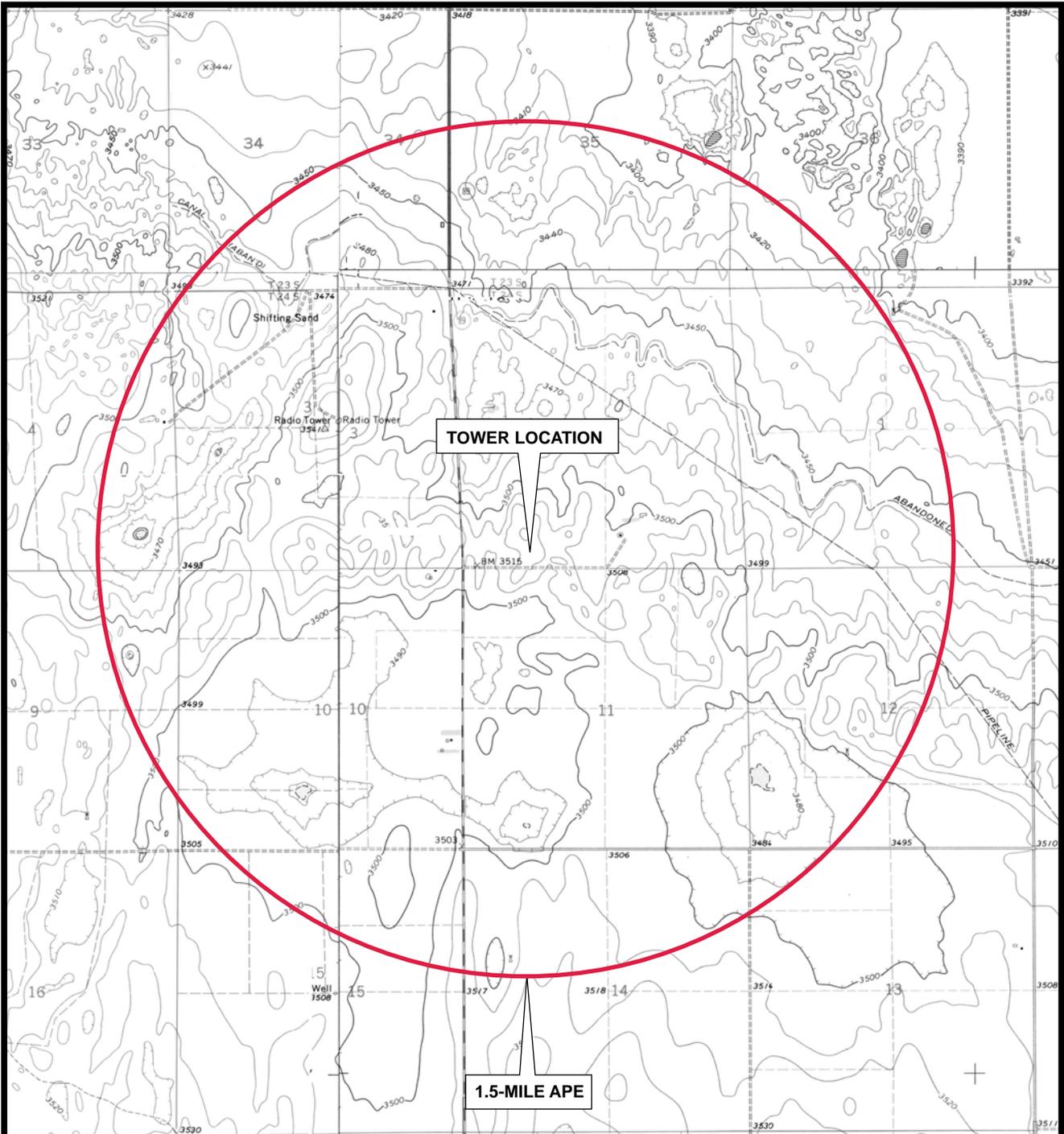
This archaeological summary documents the results of an archaeological survey performed for the TRILEAF Corporation Site# 315250 – Holly, Prowers County, Colorado (Figure 1; USGS 1966a, 1966b, 1978a, 1978b). This document is being submitted in compliance with the Federal Communications Commission (FCC) “Nationwide Programmatic Agreement For Review Of Effects On Historic Properties For Certain Undertakings Approved By The Federal Communications Commission” (FCC 2004). The information is being submitted as part of the required New Tower (NT) Submission Packet, Form 620.

The tower location is situated approximately 0.1 kilometers (300 feet) north of County Road Aa in Holly, Prowers County, Colorado, within an active agricultural field. The project consists of an existing 45.7-meter (150-foot) guyed telecommunications tower with an approximately 91.4-meter (300-foot) access road. The archaeological Area of Potential Effects (APE) lies within the Interior Plains Division of the Central Lowland Great Plains Physiographic Province. The APE for this project consists of an area measuring approximately 9.1 meters by 3 meters (10 feet by 30 feet) within which a concrete pad has been constructed for the existing tower and an approximately 91.4-meter (300-foot) access road (Figure 2; Plates 1 through 10). The archaeological survey was conducted to ensure that potentially significant archaeological resources are not located within the area impacted by the project.

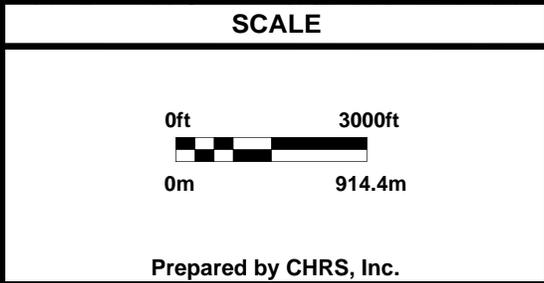
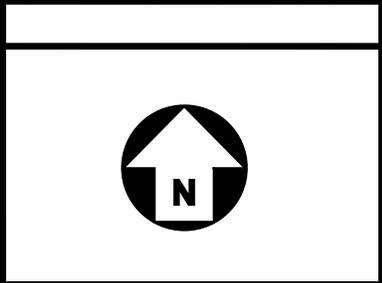
The Colorado State Office of Archaeology and Historic Preservation files were checked on November 2, 2010. Archaeological fieldwork was performed on November 2, 2010. One day was spent in the field. Eight shovel test pits were excavated. No archaeological sites were identified and no additional archaeological work is recommended.

## **PREVIOUS INVESTIGATIONS AND SUMMARY OF KNOWN SITES**

Archaeological potential was assessed prior to excavation. Historic archaeological potential was assessed through an examination of historic and modern maps. No historic archaeological sites are recorded near the APE in the site files at the Colorado State Office of Archaeology and Historic Preservation. A modern aerial photograph shows only a few widely spaced buildings in the region (Google Earth 2006). Historic archaeological potential is low. Prehistoric archaeological potential was assessed using three factors: previously recorded sites within or adjacent to the APE, topographic setting, and distance to water. A site file search at the Colorado State Office of Archaeology and Historic Preservation revealed no prehistoric archaeological sites recorded near the APE. On-site soils are mapped as excessively drained Tivoli Sand with a slope of 0% to 5% at the tower location (Natural Resources Conservation Service 2008). The nearest natural body of water is the Arkansas River, which is approximately 4.8 kilometers (3 miles) north of the APE. The area was assessed as having low archaeological potential for prehistoric sites.



 AREA OF POTENTIAL EFFECTS



**SOURCE**

USGS 1966a  
DURKEE CREEK NW, CO-KS  
USGS 1966b  
DURKEE CREEK NE, CO-KS  
USGS 1978a  
HOLLY WEST, CO-KS  
USGS 1978b  
HOLLY EAST, CO-KS

**PROJECT LOCATION MAP**

**FIGURE 1**



Plate 1: Overview of the access road, facing north.



Plate 2: Overview of the existing tower location, facing north.



Plate 3: Overview of the existing tower location, facing east.



Plate 4: Overview of the existing tower location, facing west.



Plate 5: Overview of the existing tower location, facing south.



Plate 6: Overview from the tower, facing north.



Plate 7: Overview from the tower, facing east.



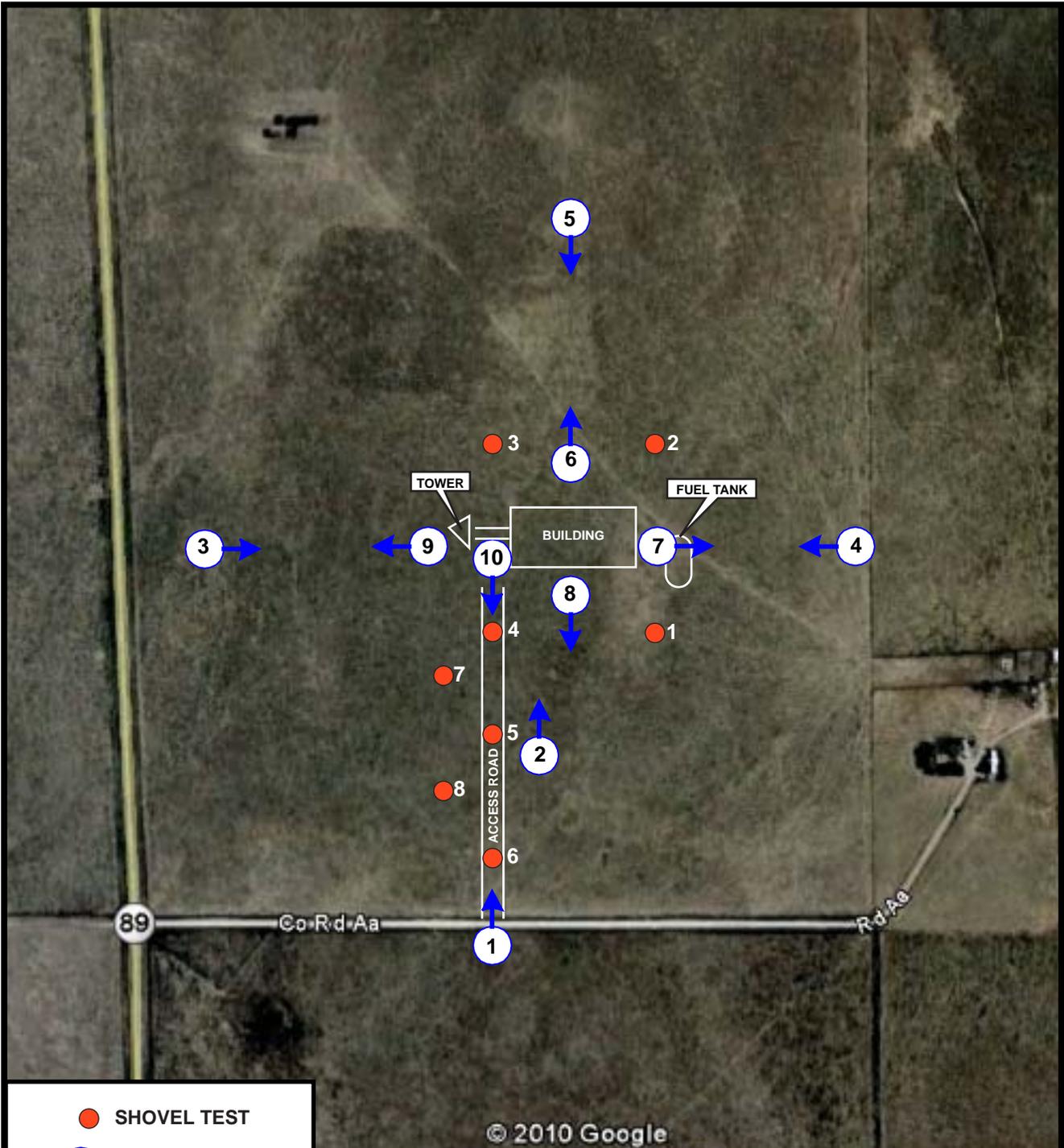
Plate 8: Overview from the tower, facing south.



Plate 9: Overview from the tower, facing west.



Plate 10: Overview of the access road from the tower, facing south



- SHOVEL TEST
- ←    PHOTO LOCATION

|   | SCALE                                  | SOURCE               |
|---|--|----------------------|
|  | NOT TO SCALE<br>Prepared by CHRS, Inc. | GOOGLE EARTH<br>2010 |

|   |                 |
|---|-----------------|
| <b>ARCHAEOLOGICAL TEST LOCATIONS AND PHOTOGRAPH LOCATIONS</b> | <b>FIGURE 2</b> |
|---|-----------------|

## **FIELD METHODS**

A pedestrian reconnaissance was made of the APE and was followed by subsurface testing. Shovel test pits measuring approximately 50 centimeters (19.68 inches) in diameter were excavated to test the area. Shovel test pits were placed inside the tower compound and along the access road at a 7.6-meter (25-foot) interval (Figure 2). All shovel test pits were excavated by hand, following natural stratigraphy, to a depth of no less than 10 centimeters (3.9 inches) into culturally sterile subsoil or until excavation by hand was no longer possible due to rocks or other obstructions. All soil was screened through 0.63-centimeter (0.25-inch) hardware cloth.

The shovel test pits are located within soils mapped as excessively drained Tivoli sand on 0% to 5% slopes (Natural Resources Conservation Services 2008). Four shovel test pits were excavated within the existing tower compound and four shovel test pits were excavated along the access road. Shovel Test Pits 1, 2, 3, 7 and 8 shared similar profiles, consisting of approximately 15 centimeters (5.9 inches) of grayish brown (10YR 5/2) followed by approximately 85 centimeters (33.4 inches) of brown (10YR 5/3) culturally sterile sand. Shovel Test Pits 4, 5 and 6 encountered a portion of the access road. They shared similar profiles, consisting of 3 to 8 centimeters (1.2 to 3.15 inches) of a pale brown (10YR 6/3) loose sand with gravel atop a grayish brown (10YR 5/2) culturally sterile compact sand subsoil. No artifacts were recovered and no archaeological sites were identified.

## **SUMMARY AND RECOMMENDATION**

This archaeological summary documents the results of an archaeological survey performed for the TRILEAF Corporation Site# 315250. The existing tower location is situated approximately 0.1 kilometers (0.06 miles) north of County Road Aa in an agricultural field in Holly, Prowers County, Colorado. This archaeological survey was conducted to ensure that potentially significant archaeological resources are not located within the area impacted by the existing tower. This document is being submitted in compliance with the Federal Communications Commission (FCC) “Nationwide Programmatic Agreement For Review Of Effects On Historic Properties For Certain Undertakings Approved By The Federal Communications Commission” (FCC 2004). The information is being submitted as part of the required New Tower (NT) Submission Packet, Form 620. Eight shovel test pits were excavated. No archaeological sites were identified, and no additional archaeological work is recommended.

The area of the tower has low potential for the historic or prehistoric archaeological deposits. Archaeological testing around the tower compound and access road encountered no archaeological remains. Based upon the archaeological testing, the construction of the tower did not impact archaeological deposits.

## REFERENCES CITED

Federal Communications Commission (FCC)

- 2004 “Nationwide Programmatic Agreement For Review Of Effects On Historic Properties For Certain Undertakings Approved By The Federal Communications Commission.”

Google Earth

- 2006 Google Earth. Accessed at <<http://earth.google.com>>. Accessed on November 19, 2010.

Natural Resources Conservation Service

- 2008 Soil survey data. Published on the Natural Resources Conservation Services. Accessed at <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed on November 19, 2010.

Plumb, Gregory

- 2004 Physiography; Web Atlas of Oklahoma. Provided by the Department of Cartography & Geography at East Central University, Ada, OK. Accessed at <<http://www.okatlas.org/okatlas/terrain/provinces.htm>>. Accessed on November 19, 2010.

United States Geological Survey

- 1966a *Durkee Creek NW, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- 1966b *Durkee Creek NE, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- 1978a *Holly West, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.
- 1978b *Holly East, CO-KS Quadrangle*. 7.5-minute series. Denver, Colorado: United States Geological Survey.

## **New Tower (“NT”) Submission Packet**

### **FCC FORM 620**

#### **Introduction**

The **NT Submission Packet** is to be completed by or on behalf of Applicants to construct new antenna support structures by or for the use of licensees of the Federal Communications Commission (“FCC”). **The Packet (including Form 620 and attachments) is to be submitted to the State Historic Preservation Office (“SHPO”) or to the Tribal Historic Preservation Office (“THPO”), as appropriate, before any construction or other installation activities on the site begin. Failure to provide the Submission Packet and complete the review process under Section 106 of the National Historic Preservation Act (“NHPA”)<sup>1</sup> prior to beginning construction may violate Section 110(k) of the NHPA and the Commission’s rules.**

The instructions below should be read in conjunction with, and not as a substitute for, the “Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission,” dated September 2004, (“Nationwide Agreement”) and the relevant rules of the FCC (47 C.F.R. §§ 1.1301-1.1319) and the Advisory Council on Historic Preservation (“ACHP”) (36 C.F.R. Part 800).<sup>2</sup>

#### **Exclusions and Scope of Use**

**The NT Submission Packet should not be submitted for undertakings that are excluded from Section 106 Review.** The categories of new tower construction that are excluded from historic preservation review under Section 106 of the NHPA are described in Section III of the Nationwide Agreement.

Where an undertaking is to be completed but no submission will be made to a SHPO or THPO due to the applicability of one or more exclusions, the Applicant should retain in its files documentation of the basis for each exclusion should a question arise as to the Applicant’s compliance with Section 106.

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<sup>1</sup> 16 U.S.C. § 470f.

<sup>2</sup> Section II.A.9. of the Nationwide Agreement defines a “historic property” as: “Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian Organization that meet the National Register criteria.”

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.5 to 10 hours

**The NT Submission Packet is to be used only for the construction of new antenna support structures.** Antenna collocations that are subject to Section 106 review should be submitted using the Collocation (“CO”) Submission Packet (FCC Form 621).

**General Instructions: NT Submission Packet**

Fill out the answers to Questions 1-5 on Form 620 and provide the requested attachments. Attachments should be numbered and provided in the order described below.

For ease of processing, provide the Applicant’s Name, Applicant’s Project Name, and Applicant’s Project Number in the lower right hand corner of each page of Form 620 and attachments.<sup>3</sup>

**1. Applicant Information**

Full Legal Name of Applicant: Southeast Region Homeland Security

Name and Title of Contact Person: Trileaf Corporation, Jennet Nguyen

Address of Contact Person (including Zip Code):  
10845 Olive Blvd., Suite 310, Saint Louis, MO 63141

Phone: (314) 997-6111 Fax: (314) 997-8066

E-mail address: Jnguyen@trileaf.com

**2. Applicant's Consultant Information**

Full Legal Name of Applicant's Section 106 Consulting Firm:

Cultural Heritage Research Services, Inc.

Name of Principal Investigator: Kenneth J. Basalik

Title of Principal Investigator: Principal Investigator

Investigator’s Address: 403 East Walnut Street

<sup>3</sup> Some attachments may contain photos or maps on which this information can not be provided.

Applicant’s Name: SE Region Homeland Security  
Trileaf Project Name: Holly Tower  
Project Number: 315250

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City: North Wales State PA Zip Code 19454

Phone: (215) 699-8006 Fax: (215) 699-8901

E-mail Address: KBasalik@chrsinc.com

Does the Principal Investigator satisfy the Secretary of the Interior’s Professional Qualification Standards?<sup>4</sup> **YES** / NO.

Areas in which the Principal Investigator meets the Secretary of the Interior’s Professional Qualification Standards: Archaeology

Other “Secretary of the Interior qualified” staff who worked on the Submission Packet (provide name(s) as well as well as the area(s) in which they are qualified):  
Mary Alfson Tinsman: Architectural Historian

**3. Site Information**

a. Street Address of Site: Near Intersection of SR-89 and Co. Road AA

City or Township: Holly

County / Parish: Prowers State: CO Zip Code: 81047

b. Nearest Cross Roads: State Route 89 / County Road Aa

c. NAD 83 Latitude/Longitude coordinates (to tenth of a second):

N 37° 59’ 7.9”; W -102° 6’ 48.0”

d. Proposed tower height above ground level:<sup>5</sup> 150 feet; 45.7 meters

<sup>4</sup> The Professional Qualification Standards are available on the cultural resources webpage of the National Park Service, Department of the Interior: <[http://www.cr.nps.gov/local-law/arch\\_stnds\\_9.htm](http://www.cr.nps.gov/local-law/arch_stnds_9.htm)>. The Nationwide Agreement requires use of Secretary-qualified professionals for identification and evaluation of historic properties within the APE for direct effects, and for assessment of effects. The Nationwide Agreement encourages, but does not require, use of Secretary-qualified professionals to identify historic properties within the APE for indirect effects. See Nationwide Agreement, §§ VI.D.1.d, VI.D.1.e, VI.D.2.b, VI.E.5.

Applicant’s Name: SE Region Homeland Security  
Trileaf Project Name: Holly Tower  
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e. Tower type:

- guyed lattice tower  self-supporting lattice  monopole
- other (briefly describe tower)

4. Project Status:<sup>6</sup>

- a. [ ] Construction not yet commenced;
- b. [ ] Construction commenced on [date] \_\_\_\_\_; or,
- c. [ X ] Construction commenced on [date] Not Known and was completed on [date] Circa 2009.

5. Applicant’s Determination of Effect:

a. Direct Effects (check one):

- i. [ X ] No Historic Properties in Area of Potential Effects (“APE”) for direct effects;
- ii. [ ] “No effect” on Historic Properties in APE for direct effects;
- iii. [ ] “No adverse effect” on Historic Properties in APE for direct effects;
- iv. [ ] “Adverse effect” on one or more Historic Properties in APE for direct effects.

b. Visual Effects (check one):

- i. [ X ] No Historic Properties in Area of Potential Effects (“APE”) for visual effects;
- ii. [ ] “No effect” on Historic Properties in APE for visual effects;
- iii. [ ] “No adverse effect” on Historic Properties in APE for visual effects;
- iv. [ ] “Adverse effect” on one or more Historic Properties in APE for visual effects.

<sup>5</sup> Include top-mounted attachments such as lightning rods.

<sup>6</sup> Failure to provide the Submission Packet and complete the review process under Section 106 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission’s rules. See Section X of the Nationwide Agreement.

Applicant’s Name: SE Region Homeland Security  
Trileaf Project Name: Holly Tower  
Project Number: 315250

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**Certification and Signature**

I certify that all representations on this FCC Form 620 and the accompanying attachments are true, correct, and complete.

*Jennet C. Nguyen*

\_\_\_\_\_  
Signature

11/22/2010

\_\_\_\_\_  
Date

Jennet C. Nguyen

\_\_\_\_\_  
Printed Name

Environmental Specialist

\_\_\_\_\_  
Title

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1) AND/ OR FORFEITURE (U.S. Code, Title 47, Section 503).**

Applicant's Name: SE Region Homeland Security  
Trileaf Project Name: Holly Tower  
Project Number: 315250

## Attachments

**Provide the following attachments in this order and numbered as follows:**

### **Attachment 1.      Résumés / Vitae.**

Provide a current copy of the résumé or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the Submission Packet for this proposed facility.

### **Attachment 2.      Additional Site Information**

Describe any additional structures, access roads, utility lines, fences, easements, or other construction planned for the site in conjunction with the proposed facility.

### **Attachment 3.      Tribal and NHO Involvement**

At an early stage in the planning process, the Nationwide Agreement requires the Applicant to gather information from appropriate Indian Tribes or Native Hawaiian Organizations (“NHOs”) to assist in the identification of historic properties of religious and cultural significance to them. Describe measures taken to identify Indian tribes and NHOs that may attach religious and cultural significance to historic properties that may be affected by the undertaking within the Areas of Potential Effects (“APE”) **for direct and visual effects**. If such Indian tribes or NHOs were identified, list them and provide a summary of contacts by either the FCC, the Applicant, or the Applicant’s representative. Provide copies of relevant documents, including correspondence. If no such Indian tribes or NHOs were identified, please explain.

### **Attachment 4.      Local Government**

- a. Has any local government agency been contacted and invited to become a consulting party pursuant to Section V.A. of the Nationwide Agreement? If so, list the local government agencies contacted. Provide a summary of contacts and copies of any relevant documents (e.g., correspondence or notices).
- b. If a local government agency will be contacted but has not been to date, explain why and when such contact will take place.

**Attachment 5. Public Involvement**

Describe measures taken to obtain public involvement in this project (e.g., notices, letters, or public meetings). Provide copies of relevant documentation.

**Attachment 6. Additional Consulting Parties**

List additional consulting parties that were invited to participate by the Applicant, or independently requested to participate. Provide any relevant correspondence or other documents.

**Attachment 7. Areas of Potential Effects**

- a. Describe the APE for direct effects and explain how this APE was determined.
- b. Describe the APE for visual effects and explain how this APE was determined.

**Attachment 8. Historic Properties Identified in the APE for Visual Effects**

- a. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for visual effects that is listed in the National Register, has been formally determined eligible for listing by the Keeper of the National Register, or is identified as considered eligible for listing in the records of the SHPO/THPO, pursuant to Section VI.D.1.a. of the Nationwide Agreement.<sup>7</sup>
- b. Provide the name and address (including U.S. Postal Service ZIP Code) of each Historic Property in the APE for visual effects, not listed in Attachment 8a, identified through the comments of Indian Tribes, NHOs, local governments, or members of the public. Identify each individual or group whose comments led to the inclusion of a Historic Property in this attachment. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63).
- c. For any properties listed on Attachment 8a that the Applicant considers no longer eligible for inclusion in the National Register, explain the basis for this recommendation.

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<sup>7</sup> Section VI.D.1.a. of the Nationwide Agreement requires the Applicant to review publicly available records to identify within the APE for visual effects: i) properties listed in the National Register; ii) properties formally determined eligible for listing by the Keeper of the National Register; iii) properties that the SHPO/THPO certifies are in the process of being nominated to the National Register; iv) properties previously determined eligible as part of a consensus determination of eligibility between the SHPO/THPO and a Federal Agency or local government representing the Department of Housing and Urban Development (HUD); and, v) properties listed in the SHPO/THPO Inventory that the SHPO/THPO has previously evaluated and found to meet the National Register criteria, and that are identified accordingly in the SHPO/THPO Inventory.

**Attachment 9. Historic Properties Identified in the APE for Direct Effects**

- a. List all properties identified in Attachment 8a or 8b that are within the APE for direct effects.
- b. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for direct effects, not listed in Attachment 9a, that the Applicant considers to be eligible for listing in the National Register as a result of the Applicant's research. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63). For each property that was specifically considered and determined not to be eligible, describe why it does not satisfy the criteria of eligibility.
- c. Describe the techniques and the methodology, including any field survey, used to identify historic properties within the APE for direct effects.<sup>8</sup> If no archeological field survey was performed, provide a report substantiating that: i) the depth of previous disturbance exceeds the proposed construction depth (excluding footings and other anchoring mechanisms) by at least 2 feet; or, ii) geomorphological evidence indicates that cultural resource-bearing soils do not occur within the project area or may occur but at depths that exceed 2 feet below the proposed construction depth.<sup>9</sup>

**Attachment 10. Effects on Identified Properties**

For each property identified as a Historic Property in Attachments 8 and 9:

- a. Indicate whether the Applicant believes the proposed undertaking would have a) no effect; b) no adverse effect; or, c) an adverse effect. Explain how each such assessment was made. Provide supporting documentation where necessary.
- b. Provide copies of any correspondence and summaries of any oral communications with the SHPO/THPO.
- c. Describe any alternatives that have been considered that might avoid, minimize, or mitigate any adverse effects. Explain the Applicant's conclusion regarding the feasibility of each alternative.

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<sup>8</sup> Pursuant to Section VI.D.2.a. of the Nationwide Agreement, Applicants shall make a reasonable and good faith effort to identify above ground and archeological historic properties, including buildings, structures, and historic districts, that lie within the APE for direct effects. Such reasonable and good faith efforts may include a field survey where appropriate.

<sup>9</sup> Under Section VI.D.2.d. of the Nationwide Agreement, an archeological field survey is required even if one of these conditions applies, if an Indian tribe or NHO provides evidence that supports a high probability of the presence of intact archeological Historic Properties within the APE for direct effects.

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### Attachment 11. Photographs

Except in cases where no Historic Properties were identified within the Areas of Potential Effects, submit photographs as described below. Photographs should be in color, marked so as to identify the project, keyed to the relevant map (see Item 12 below) or text, and dated; the focal length of the lens should be noted. The source of any photograph included but not taken by the Applicant or its consultant (including copies of historic images) should be identified on the photograph.

- a. Photographs taken from the tower site showing views from the proposed location in all directions. The direction (*e.g.*, north, south, etc.) should be indicated on each photograph, and, as a group, the photographs should present a complete (360 degree) view of the area around the proposed tower.
- b. Photographs of all listed and eligible properties within the Areas of Potential Effects.
- c. If any listed or eligible properties are visible from the proposed tower site, photographs looking at the tower site from each historic property. The approximate distance in feet (meters) between the site and the historic property should be included.
- d. Aerial photos of the APE for visual effects, if available.

### Attachment 12. Maps

Include one or more 7.5-minute quad USGS topographical maps that:

- a. Identify the Areas of Potential Effects for both direct and visual effects. If a map is copied from the original, include a key with name of quad and date.
- b. Show the location of the proposed tower site and any new access roads or other easements including excavations.
- c. Show the locations of each property listed in Attachments 8 and 9.
- d. Include keys for any symbols, colors, or other identifiers.

**Attribution and Bibliographic Standards.** All reports included in the Submission Packet should be footnoted and contain a bibliography of the sources consulted.

- a. Footnotes may be in a form generally accepted in the preparer's profession so long as they identify the author, title, publisher, date of publication, and pages referenced for published materials. For archival materials/documents/letters, the citation should

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include author, date, title or description and the name of the archive or other agency holding the document.

- b. A bibliography should be appended to each report listing the sources of information consulted in the preparation of the report. The bibliography may be in a form generally accepted in the preparer's profession.

### FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The FCC is authorized under the Communications Act of 1934, as amended, to collect the personal information we request in this form. We will use the information provided in the application to determine whether approving this application is in the public interest. If we believe there may be a violation or potential violation of a FCC statute, regulation, rule or order, your application may be referred to the Federal, state or local agency responsible for investigating, prosecuting, enforcing or implementing the statute, rule, regulation or order. In certain cases, the information in your application may be disclosed to the Department of Justice or a court or adjudicative body when (a) the FCC; (b) any employee of the FCC; or (c) the United States Government is a party to a proceeding before the body or has an interest in the proceeding. In addition, all information provided in this form will be available for public inspection.

If you owe a past due debt to the federal government, any information you provide may also be disclosed to the Department of Treasury Financial Management Service, other federal agencies and/or your employer to offset your salary, IRS tax refund or other payments to collect that debt. The FCC may also provide this information to these agencies through the matching of computer records when authorized.

If you do not provide the information requested on this form, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

We have estimated that each response to this collection of information will take an average of .50 to 10 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, and actually complete and review the form or response. If you have any comments on this estimate, or on how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-1039), Washington, DC 20554. We will also accept your comments via the Internet if you send them to [Judith-B.Herman@fcc.gov](mailto:Judith-B.Herman@fcc.gov). Please **DO NOT SEND COMPLETED APPLICATIONS TO THIS ADDRESS**. Remember - you are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number of if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-1039.

**ATTACHMENT 1:**  
**Résumés / Vitae**



# CHRS, Inc.

Cultural Heritage Research Services, Inc.

ARCHAEOLOGY, RESEARCH & HISTORIC PRESERVATION

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**Name** Kenneth J. Basalik, Ph.D. **Title** President

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**Primary Responsibilities**

Corporate Management, Principal Investigator, QA/QC review

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**Years Experience:** **With This Firm** 29 **With Other Firms** 4

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**Education**

| <b>Institution</b>                | <b>Degree(s)</b> | <b>Year</b> | <b>Specialization</b>                 |
|-----------------------------------|------------------|-------------|---------------------------------------|
| <u>Temple University</u>          | <u>Ph.D.</u>     | <u>1994</u> | <u>Anthropology</u>                   |
| <u>Temple University</u>          | <u>M.A.</u>      | <u>1980</u> | <u>Anthropology/Hist. Archaeology</u> |
| <u>University of Pennsylvania</u> | <u>B.A.</u>      | <u>1976</u> | <u>Anthropology</u>                   |

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**Organizations:**

American Cultural Resources Association, Pennsylvania Archaeological Council, Council on Maryland Archaeology, National Trust for Historic Preservation, Society for Historical Archaeology, American Anthropological Association, Vernacular Architecture Forum

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Kenneth J. Basalik, Ph.D. has directed historical and archaeological investigations in Pennsylvania, Delaware, Maryland, New Jersey, New York, North Carolina, Virginia, and West Virginia for clients in state and federal government, as well as private industry. He has directed cultural resource management projects at all levels of effort. This work has included the preparation of Historic Contexts, Historic and Prehistoric Models, Historic Resource Surveys, Determination of Eligibility and Criteria of Effect Reports, Section 4(f), Section 2002, and HABS/HAER recordations, a variety of other related historic tasks, and Phase I, Phase II, and Phase III Archaeological Surveys.

As President of CHRS, Dr. Basalik has administered more than 250 projects. These projects have included small scale bridge projects and intersection improvements as well as large area-wide surveys for roadway on new alignment. Dr. Basalik has experience with indefinite delivery type contracts. In the last 25 years we have participated in open-end contracts with Federal, State, and local governmental agencies as well as private firms. These groups have included the U.S. Army Corps of Engineers (Wilmington District), the Pennsylvania Department of Transportation (statewide and individual district-wide contracts), the Pennsylvania Turnpike Commission, the Pennsylvania Historical and Museum Commission (PASHPO); the Pennsylvania Department of Environmental Protection's Bureau for Abandoned Mine Reclamation, Delaware County, (Pennsylvania), and Philadelphia Electric Company (PECO). We are intimately familiar with the nature of such work, and the vagaries of budgeting, scheduling, and performing cultural resource tasks under such contracts.

Dr. Basalik is a frequent speaker on cultural resource issues for the Transportation Research Board, as well as at other professional societies. He is a member of the Pennsylvania Archaeological Council and the Society for Pennsylvania Archaeology. In addition, he is an active member in the Vernacular Architectural Forum, the Society for Architectural History, the Society for the History of Technology, the American Archaeological Association (Fellow), the Society for American Archaeology, the Society for Historical Archaeology, the Society for Industrial Archaeology, the Philadelphia Archaeological Forum and other professional societies.

Dr. Basalik has managed cultural resources projects of all sizes for more than two decades. He has a reputation for producing high-quality products performed within tight time frames at reasonable cost. His responsibilities include project administration, analysis, report writing, and review.

#### Example Papers and Presentations:

Historic Contexts as a tool for evaluating Historic Resources and Historical Archaeology Sites: an example from western Pennsylvania. Paper delivered 76th annual meeting of the Transportation Research Board, Washington, D.C. (1997).

GIS and GIGO: a need for caution: Introductory remarks to Incorporating Archaeology and Historic Structures in NEPA through GIS and Model Development. Paper delivered, 77th annual meeting of the Transportation Research Board, Washington, D.C. (1998).

How Much Digging Do We Need to Do and What are the Research Questions? A Middle Atlantic Perspective. Paper presented, summer session Transportation Research Board Meetings, San Diego, CA (1998).

Settlement and Subsistence in the Contact Period a work in progress viewed from the mountains of Dauphin County, Pennsylvania paper present annual meeting Pennsylvania Archaeological Council/Society for Pennsylvania Archaeology. Williamsport, PA (2000).

The Lackawanna Valley Industrial Highway: A View from the Anthracite Fields. Paper presented with Jamie McIntyre at Byways to the Past: the First Annual Conference on Historical and Archaeological Investigations in Pennsylvania Transportation Projects, March 8-9, 2000 Indiana, PA (2000).

#### Selected Cultural Resource Management Reports:

Phase I Archaeological Survey performed for the Eastern Shore Hospital Center, Cambridge, Maryland. Report submitted to the Maryland Department of Health and Mental Hygiene, Office of Planning and Capital Financing, Baltimore, Maryland (1997).

Archeological Resources Survey, Pamplin Park, Dinwiddie County, VA. Report submitted to Pamplin Park (1999).

Phase I Historic and Pre-Historic Archaeological Survey for the proposed Artdor Site in Evesham Township, Burlington County, New Jersey. Report submitted to the Orleans Corporation (1998).

Phase III Archaeological Survey: Henry Rupp House Site (36CU 143) - Old Gettysburg Road Traffic Improvement Project: S.R. 2014, Section 019, Lower Allen Township, Cumberland County, Pennsylvania. with D. Pickett, M. Walsh and P. Ruth. Report submitted Buchart Horn Inc., York, PA (1999).

Phase III Archaeological Data Recovery at The Good House Site, 36la1154: Leaman Place Bridge Replacement Project, U.S. Route 30, Section B-16, Paradise Township, Lancaster County, Pennsylvania. Report submitted Pennsylvania Department of Transportation, District 8-0 (2000).

Phase III Data Recovery, Barbadoes Island, Montgomery County. Report submitted to Gannett Fleming, Inc. of Camp Hill, Pennsylvania for the Pennsylvania-American Water Company of Norristown, Pennsylvania PA (2001).

Cultural Resources Survey for the proposed Hooper/Ummarino Builders Project, Lot 7, Block 15 in Evesham Township, Burlington County, New Jersey. Report submitted to Hooper/Ummarino Builders, Voorhees, New Jersey Corporation (2002).

Cultural Resources Survey conducted to identify previously known and potentially significant resources for the proposed development of Block 15, Lot 8 of the Evesham Township Project in Evesham Township, Burlington County, New Jersey. Report submitted to Scarborough Land Group (2003).

Phase I-III Archaeological Survey - S.R. 0452, Section 03S Project, Marcus Hook, Delaware County, Pennsylvania. Report submitted to Sheladia Associates, Inc. of Camp Hill Pennsylvania (ongoing).



# CHRS, Inc.

Cultural Heritage Research Services, Inc.

ARCHAEOLOGY, RESEARCH & HISTORIC PRESERVATION

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**Name** Mary Alfson Tinsman **Title** Senior Architectural Historian

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**Primary Responsibilities**

Project Management, administration field survey, writing, analysis, staff supervision, review

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**Years Experience:** **With This Firm** 9 **With Other Firms** 1

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**Education**

| <b>Institution</b>                | <b>Degree(s)</b> | <b>Specialization</b>         |
|-----------------------------------|------------------|-------------------------------|
| <u>University of Pennsylvania</u> | <u>M.S.</u>      | <u>Historic Preservation</u>  |
| <u>Albion College</u>             | <u>B.A.</u>      | <u>Anthropology (History)</u> |

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**Organizations:**

Transportation Research Board: Member of the Committee for Archaeology and Historic Preservation in Transportation, American Cultural Resources Association, Preserving the Recent Past, Society of Architectural Historians

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Ms. Tinsman has experience conducting and directing a variety of historic architectural studies, including Historic Resource Surveys, Determination of Eligibility Reports, Criteria of Effects Reports, Memoranda of Agreement, HABS/HAER recordations and Section 4(f) Evaluations. Ms. Tinsman has undertaken all levels of historic resource studies, including preliminary reconnaissance level surveys and intensive studies. Resources documented have included farmsteads, urban and rural historic districts, commercial properties, industrial complexes, transportation resources, historic landscapes, and residential properties. Ms. Tinsman is an Adjunct faculty member at Montgomery County Community College where she teaches Early American History and An Introduction to Historic Preservation.

**Selected Projects:**

Newark Public Schools Survey, Newark, NJ

This project entailed the coordination of a field survey of 80 public schools located in Newark, New Jersey. Structures were photographed and verbally documented on both the exteriors and the interiors. The information was then be transferred to an Access database and was linked to both photographs and GIS mapping.

HABS No. PA-6666: Scheetz Farm, 7161 Camp Hill Road, Fort Washington Vicinity, Montgomery County, PA

This project entailed the detailed analysis of the Scheetz Farm and associated outbuildings for the Historic American Buildings Survey. Detailed historical information was compiled from various sources into a comprehensive report detailing the overall history of the property and the surrounding area. Large format photography was conducted of both the interior and the exterior of the house. Measured drawings were completed of the house.

S.R. 1035, Section 002, Bridge Replacement Project in Warwick and Elizabeth Townships, Lancaster County, PA

This project entailed the evaluation of the effects of the proposed bridge replacement on the one National Register-listed and two National Register-eligible properties located within the project Area of Potential Effect. The project also included the creation of a Memorandum of Agreement and a State Level Recordation for the bridge.

Harford Historic District, Town of Harford, Susquehanna County, PA

This project entailed a detailed survey and extensive historical research of a small agricultural town. Resources within the study included vernacular dwellings, high-style residential dwellings, commercial and religious buildings, bridges, and cultural resource landscapes. Extensive research was conducted regarding the cultural traditions of this small town. Public involvement played a key role in developing the historic context for the Harford Historic District.

**ATTACHMENT 2:**  
**Additional Site Information**

Tower is approximately 150' tall with three guy wire easements located near the intersection of State Route 89 and County Road AA in Holly, Prowers County, Colorado. The access road is approximately 12' wide and 340' long connecting to County Road AA.

**ATTACHMENT 3:**  
**Tribal and NHO Involvement**

Trileaf submitted the Tower Construction Notification to the Federal Communication Commission (FCC), on October 8<sup>th</sup>, 2010. A second notice was sent to all interested tribes / organizations on November 8<sup>th</sup>, 2010. The consultation process will continue per the FCC's guidelines.

Any relevant comments from Tribes received by Trileaf will be forwarded to your office.

## Working Copy as of November 22, 2010

### Southeast Region Homeland Security – Holly Tower TCNS # 68805

| List of Interested Tribes for # 315250 |   |               |                |
|--|---|---------------|----------------|
| Tribes                                 | Additional Information  | Response date | Response media |
| Jicarilla Apache Nation                | No Interest   | 13/31/2010    | Email via TCNS |
| Southern Ute Tribe                     | Does not review existing structures                             | 10/8/2010     | Email via TCNS |
| Comanche Nation                        | Photograph, aerial photo, legal description and cultural survey | 10/8/2010     | Email via TCNS |
| Cheyenne-Arapaho Tribes of Oklahoma    | Tribe Referred  | 11/22/2010    | Via TCNS       |
| Apache Tribe of Oklahoma               | No Interest   | 10/8/2010     | Email via TCNS |
| Northern Arapaho                       |   |               |                |
| Osage Nation                           | Legal Description, maps, site plans, cultural survey            | 10/8/2010     | Email via TCNS |
| Ute Indian Tribe                       | Tribe Referred  | 11/22/2010    | Via TCNS       |
| Northern Cheyenne Tribe                | If no response within 30 days , no interest in review           | 10/8/2010     | Email via TCNS |
|  |   |               |                |

1<sup>st</sup> notification – 10/8/2010  
2<sup>nd</sup> notification – 11/12/2010  
FCC referral – 11/22/2010  
Tribes Cleared –

**ATTACHMENT 4:**  
**Local Government**

There are no Certified Local Government contacts for the Town of Holly or for Prowers County, Colorado.

Trileaf sent relevant information to the Prowers County Historical Society. See Attachment 6 for contact information.

**ATTACHMENT 5:**  
**Public Involvement**

Notice of the proposed construction will be published in the Lamar Ledger on October 15<sup>th</sup>, 20<sup>th</sup>, and 22<sup>nd</sup>, 2010.

*“Southeast Region Homeland Security has constructed a 150ft rural broadband tower northwest of the intersection of SR-89 and Co. Rd AA, Holly, Colorado. If you have concerns of any historic properties that might be adversely affected by this tower, please write to: Amy, Trileaf Corp., 10845 Olive Blvd., Ste. 310, St. Louis, MO 63141, 314-997-6111. Please include the tower location and the location of the historic resource that you believe might be affected.”*

Any relevant concerns from the public regarding effects to Historic Properties that Trileaf receives in the 30 days following publication will be forwarded to your office.

# The Lamar Ledger

Your News

310 South Fifth St. P.O. Box 1217 Lamar, CO 81052 Phone 719-336-2266 www.lamarledger.com Fax 719-336-2526

## PROOF OF PUBLICATION

STATE OF COLORADO )  
County of Prowers )ss

Mary Breslin

being duly sworn, deposes and says:

1. That he/she is the Publisher/Publisher's Agent of the Lamar Ledger and that the said Lamar ledger is a newspaper of general circulation and that said newspaper is printed and published Wednesday and Friday each week except legal holidays.

2. That the said Lamar Ledger has been established, and has been printed and published in the County of Prowers in the state of Colorado, uninterruptedly and continuously for at least 52 weeks.

3. That the said Lamar Ledger is a twice weekly newspaper of general circulation and it is published wholly in the said County of Prowers, in which said County it is required that said public notice be published.

4. That the said Lamar Ledger has been admitted to the United States mail as second class matter under the provisions of the Act of Congress of March 3, 1879, and amendments thereof.

5. That the said Lamar Ledger is a twice weekly newspaper duly qualified for the publication of said public notice within the meaning of Colorado Revised Statutes Sections 101-105, Chapter 24, Article 70 of 1973.

6. That the said Lamar Ledger is a twice weekly newspaper duly qualified for the publication of the said public notice, and that copies of said paper have been delivered by carrier and transmitted through the mails to every subscriber in accordance with the normal business operation of this office.

7. That the said annexed public notice is a full, true and correct copy of the original thereof, and that the same was published in each of the regular and entire issue of said newspaper, once for 2 week(s) by 3 insertions and that the first publication of said public notice in said newspaper was on the 15th day of October, 2010, and the last publication of said public notice was in said newspaper on the 22nd day of October, 2010.

Mary Breslin

Subscribed in my presence and sworn to before me this 28 day of October, 2010.

My commission expires 03/05/2014

Tracyne J. Godney

Notary Public

### PUBLIC NOTICE

Southeast Region Homeland Security has constructed a 150ft rural broadband tower northwest of the intersection of SR-89 and Co. Rd AA, Holly, Colorado. If you have concerns of any historic properties that might be adversely affected by this tower, please write to: Amy, Trileaf Corp., 10845 Olive Blvd., Ste. 310, St. Louis, MO 63141, 314-997-6111. Please include the tower location and the location of the historic resource that you believe might be affected.

Published in the Lamar Ledger October 15, 20, & 22, 2010. Ad# 5495037

**ATTACHMENT 6:**  
**Additional Consulting Parties**

- The Big Timbers Museum- Prowers County Historical Society: P.O. Box 362, Lamar, Colorado 81052



Engineering • Environmental • Construction

10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

November 23, 2010

**BIG TIMBERS MUSEUM – PROWERS COUNTY HISTORICAL SOCIETY**

P.O. Box 362

Lamar, Colorado 81052

Attention: Director

**RE: Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**

Near intersection of SR-89 and Co. Road AA, Holly CO 81047

Prowers County, Durkee Creek NE Quadrangle (DeLorme)

Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W

Dear Director Historical Society;

Trileaf Corporation is in the process of completing a NEPA/Section 106 Review at the referenced property. The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 400' long and 12' wide. Currently the site consists of the guyed tower, compound within rangeland dominated by grasses and shrubs. The antenna will be licensed by the Federal Communications Commission (FCC).

Our investigation includes determining if the site is contained in, on or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed, or eligible for listing on the State or National Registers of Historic Places, or located in or on an Indian Religious Site.

Trileaf is requesting information regarding this tower's potential effect on Historic Properties. A site location map and photograph is enclosed. If you wish to comment or be considered a consulting party, please respond within thirty (30) days of the date of this letter. If a response is not received within thirty (30) days, it will be assumed that you have no objections to this undertaking.

Please call me at (314) 997-6111, fax at (314) 997-8066, or email [jnguyen@trileaf.com](mailto:jnguyen@trileaf.com) if you need additional information or have any questions. Thank you for your assistance in this regard.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist

**ATTACHMENT 7:**  
**Areas of Potential Effects (APE)**

Per the *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission*, the APEs are as follows:

The APE for direct effects for this project was determined based on the potential ground disturbance and is limited to the location of the tower, equipment box, and access road

Indirect Visual Effects: The APE for visual effects of this project is defined as a 1.5-mile radius surrounding the site.

**ATTACHMENT 8a:**  
**Historic Properties Identified in the APE for Visual Effects**

Results of survey and file search:

No NRHP-eligible or -listed architectural history properties are located within the APE for visual effects.

**ATTACHMENT 9:**  
**Historic Properties Identified in the APE for Direct Effects**

**There are no Historic Properties Identified within the Direct Effect APE of the proposed tower lease space.**

Results of survey and file search:

No NRHP-eligible or -listed architectural history properties are located within the APE for direct effects. No historic archaeological sites are recorded near the APE in the site files at the Colorado State Office of Archaeology and Historic Preservation. Historic archaeological potential is low. Eight shovel test pits were excavated. No archaeological sites were identified, and no additional archaeological work is recommended.

## **ATTACHMENT 9c:**

### **Archaeological techniques and methodology**

A pedestrian reconnaissance was made of the APE and was followed by subsurface testing. Shovel test pits measuring approximately 50 centimeters in diameter were excavated to test the area. Shovel test pits were placed inside the tower compound and along the access road at a 7.6-meter interval. All shovel test pits were excavated by hand, following natural stratigraphy, to a depth of no less than 10 centimeters into culturally sterile subsoil or until excavation by hand was no longer possible due to rocks or other obstructions. All soil was screened through 0.63 centimeter hardware cloth.

**ATTACHMENT 10a:**  
**Effects on Identified Properties**

The area of the tower has low potential for the historic or prehistoric archaeological deposits. Archaeological testing around the tower compound and access road encountered no archaeological remains. The shovel test pits are located within soils mapped as excessively drained Tivoli Sand on 0% to 5% slopes. Four shovel test pits were excavated within the existing tower compound and four shovel test pits were excavated along the access road. Shovel Test Pits 1, 2, 3, 7, and 8 shared similar profiles, consisting of approximately 85 centimeters of brown culturally sterile sand. Shovel Test Pits 4, 5 and 6 encountered a portion of the access road. They shared similar profiles, consisting of 3 to 8 centimeters of pale brown loose sand with gravel atop a grayish brown culturally sterile compact sand subsoil. Based upon the archaeological testing, the construction of the tower did not impact archaeological deposits.

The subject property does not contain any historic buildings. It has not previously been listed or determined eligible for listing in the National Register of Historic Places. In addition, no historic properties were located within the Visual Effects APE.

**ATTACHMENT 11:**  
**Photographs**



**Site Photograph 1** – Looking north at the Property.



**Site Photograph 2** – Looking south at the Property.

## **Site Photographs**

**Southeast Region Homeland Security –  
Holly Tower**

Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

 **TRILEAF**<sup>™</sup>  
Environmental & Property Consultants



**Site Photograph 3** – Looking east at the Property.



**Site Photograph 4** – Looking west at the Property.

## Site Photographs

### Southeast Region Homeland Security – Holly Tower

Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

 **TRILEAF**<sup>™</sup>  
Environmental & Property Consultants



**Site Photograph 5** – Looking north away from the Property.



**Site Photograph 6** – Looking south away from the Property along the proposed access easement.

**Site Photographs**

**Southeast Region Homeland Security –  
Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010





**Site Photograph 7** – Looking east away from the Property.



**Site Photograph 8** – Looking west away from the Property towards the guy wire and anchor.

### **Site Photographs**

**Southeast Region Homeland Security –  
Holly Tower**  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047

Photographed:  
10-10-2010

 **TRILEAF**<sup>™</sup>  
Environmental & Property Consultants

**ATTACHMENT 12:**

**Map**

# Durkee Creek NE, Colorado (DeLorme)

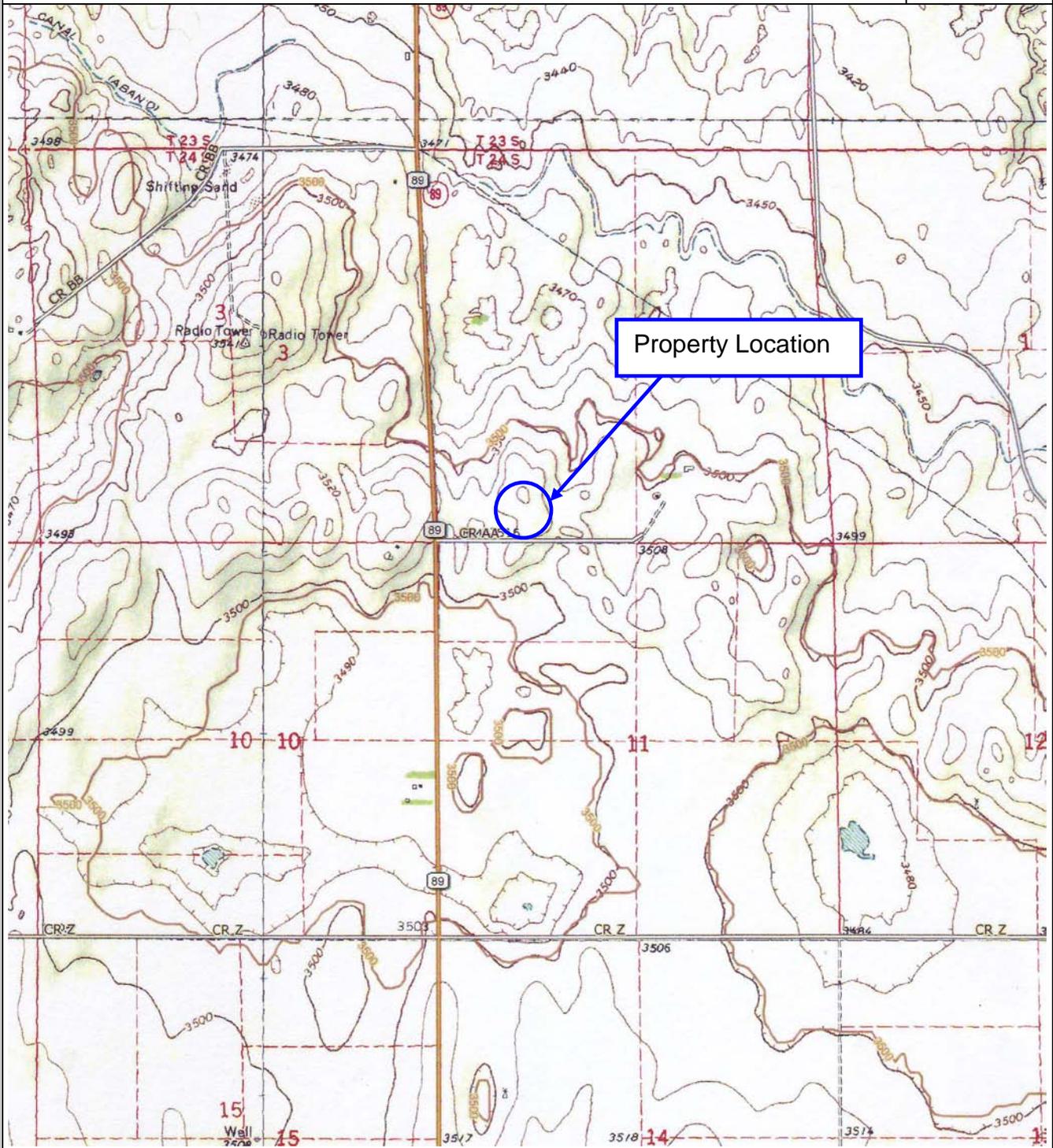
Contour Interval = 10 Feet

Scale

1 Inch = 2,000 Feet



North



## USGS Topographic Map

Southeast Region Homeland Security – Holly Tower  
Near intersection of SR-89 and Co. Rd. AA  
Holly, Colorado 81047



## B.2: SHPO Response



HISTORY *Colorado*

30 November 2010

CHS #58502

Jennet C. Nguyen  
Trileaf Corporation  
10845 Olive Blvd., Suite 310  
St. Louis, MO 63141

RE: Placement of a cellular antenna SE Region Homeland Security, Holly Tower  
equipment facility at: State Highway 89 and Prowers County Road AA  
Holly vicinity, Prowers County

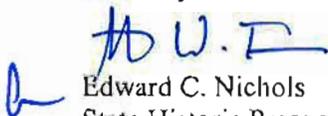
Dear Ms. Nguyen:

Thank you for your recent correspondence concerning the installation of a cellular facility at the above address (a project having Federal Communication Commission involvement). Our office has reviewed the submitted materials.

- There are no cultural resources in the Area of Potential Effect (APE).
- No historic or archaeological resources will be affected by this project.
- No historic properties will be affected by this project. However, there is a possibility that historic and/or prehistoric subsurface resources are located in the APE. If artifacts are discovered during the course of construction, please stop work immediately and contact our office for further guidance.
- The proposed project will have no adverse effect on cultural resources within the APE.
- The proposed project will result in an adverse effect. Please refer to the attached letter for more details.

If you have any questions, please feel free to contact Joseph Saldibar, Architectural Services Manager, at (303) 866-3741. We look forward to hearing from you.

Sincerely,



Edward C. Nichols  
State Historic Preservation Officer and  
President, Colorado Historical Society

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OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION  
303-866-3392 \* Fax 303-866-2711 \* E-mail: oahp@chs.state.co.us \* Internet: www.coloradohistory-oahp.org

### B.3: Tribal Correspondence

# Final Tribal Summary

## Southeast Region Homeland Security – Holly Tower TCNS # 68805

| List of Interested Tribes for # 315250 |   |               |                |
|--|---|---------------|----------------|
| Tribes                                 | Additional Information                                | Response date | Response media |
| Jicarilla Apache Nation                | No Interest   | 13/31/2010    | Email via TCNS |
| Southern Ute Tribe                     | Does not review existing structures                   | 10/8/2010     | Email via TCNS |
| Comanche Nation                        | No Interest   | 3/32011       | Trileaf Email  |
| Cheyenne-Arapaho Tribes of Oklahoma    | Tribe Referred/ NO Objection                          | 11/29/2011    | Postal Mail    |
| Apache Tribe of Oklahoma               | No Interest   | 10/8/2010     | Email via TCNS |
| Northern Arapaho                       | No response equals no interest                        | 10/8/2010     | Email via TCNS |
| Osage Nation                           | No Objection  | 3/14/2011     | Postal Mail    |
| Ute Indian Tribe                       | Tribe Referred  | 11/22/2010    | Via TCNS       |
| Northern Cheyenne Tribe                | If no response within 30 days , no interest in review | 10/8/2010     | Email via TCNS |
|  |   |               |                |

1<sup>st</sup> notification – 10/8/2010  
2<sup>nd</sup> notification – 11/12/2010  
FCC referral – 11/22/2010  
Tribes Cleared – 3/14/2011

## Jennet Nguyen

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Tuesday, October 05, 2010 7:35 AM  
**To:** Jennet Nguyen  
**Subject:** Proposed Tower Structure Info - Email ID #2609558

Dear Jennet C Nguyen,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. You will need to reference this Notification ID number when you update your project's Status with us.

Below are the details you provided for the construction you have proposed:

Notification Received: 10/05/2010

Notification ID: 68805

Tower Owner Individual or Entity Name: Southeast Region Homeland Security

Consultant Name: Jennet C Nguyen

Street Address: 10845 Olive Blvd.

Suite 310

City: Saint Louis

State: MISSOURI

Zip Code: 63141

Phone: 314-997-6111

Email: [jnguyen@trileaf.com](mailto:jnguyen@trileaf.com)

Structure Type: GTOWER - Guyed Tower

Latitude: 37 deg 59 min 07.9 sec N

Longitude: 102 deg 06 min 48 sec W

Location Description: Near intersection of SR-89 and CO. Rd Aa

City: Holly

State: COLORADO

County: PROWERS

Ground Elevation: 1075.3 meters

Support Structure: 45.7 meters above ground level

Overall Structure: 45.7 meters above ground level

Overall Height AMSL: 1121 meters above mean sea level

## Jennet Nguyen

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**From:** towernotifyinfo@fcc.gov  
**Sent:** Friday, October 08, 2010 2:02 AM  
**To:** Jennet Nguyen  
**Cc:** kim.pristello@fcc.gov; diane.dupert@fcc.gov  
**Subject:** NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2611796

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Tribal Historic Preservation Officer Jeff Blythe - Jicarilla Apache Nation - Dulce, NM - regular mail

2. NAGPRA Coordinator Neil B Cloud - Southern Ute Tribe - Ignacio, CO - electronic mail and regular mail

Details: Under the following 6 conditions, the Southern Ute Indian Tribe does not need to review the proposed tower (PLEASE NOTE THAT THE FORM 620 IS MANDATORY IF THE PROPOSED TOWER NEEDS TO BE REVIEWED):

The Southern Ute Indian Tribe does NOT need to review proposed extensions to increase the height of already existing towers.

The Southern Ute Indian Tribe does NOT need to review proposed collocations on already existing towers.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are to be placed on rooftops.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are within a city's limits, if the proposed structure is to be located on a disturbed road that has already been gravelled.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are to be placed on pastures that have already been plowed or cultivated.

The Southern Ute Indian Tribe does NOT need to review proposed structures that are merely extensions in height of an already existing structure.

For all other proposed areas, the Southern Ute Indian Tribe DOES NEED a copy of the Form 620. Please send the Form 620 via regular mail and be sure to INCLUDE THE FAX # of the company in order to receive a reply:

Neil B. Cloud, NAGPRA Coordinator, P.O. Box 737, Mail Stop #73, 116 Capote Drive, Ignacio, Colorado 81137

If the applicant/tower builder receives no response from the Southern Ute Indian Tribe within 30 days AFTER YOU HAVE SENT THE FORM 620 to the Tribe (including color photographs and resumes), then the Southern Ute Indian Tribe has no interest in participating in pre-construction review for the site.

### 3. NAGPRA Assistant Kelly Glancy - Comanche Nation - Lawton, OK - regular mail

Details: Under the following conditions, the Comanche Tribe does not need to review proposed projects that involve pre-existing above-ground feature additions or modifications: the proposed project is within the city limits, if the proposed structure is to be located on a previously disturbed site that has been previously evaluated.

If the proposed project does not meet the aforementioned conditions, the Comanche Tribe THPO/NAGPRA Office now requires photographs of the proposed site taken from all 4 directions (north, south, east and west). Additionally, we do not require, but request that you provide us with an aerial view of the proposed site whenever possible.

We also now require a written legal description of the proposed site (such as the section, range, township, etc.), and request that you provide us with any existing reports or surveys relating to the proposed site.

Please send these materials to us via regular or express mail, since we require hard copies (not electronic copies). Please send to: Comanche Nation Office of Historic Preservation, c/o Kelly Glancy - THPO/NAGPRA Assistant, P.O. Box 908, Lawton, OK 73502. Thank you!

Sincerely,  
Jimmy Arterberry, THPO/NAGPRA Director

4. THPO Lynette Grey - Cheyenne-Arapaho Tribes of Oklahoma - Concho, OK - electronic mail and regular mail

5. Tribal Administrator Bobby Jay - Apache Tribe of Oklahoma - Anadarko, OK - electronic mail and regular mail

Details: The Apache Tribe of Oklahoma has no interest in participating in pre-construction review for this site. The Applicant, however, must notify the Apache Tribe of Oklahoma in the event archaeological properties or human remains are discovered during construction.

6. THPO Darlene Conrad - Northern Arapaho - Fort Washakie, WY - electronic mail and regular mail

7. Tribal Historic Preservation Officer Dr. Andrea Hunter - Osage Nation - Pawhuska, OK - regular mail

Details: The Osage Nation Tribal Historic Preservation Office requires the following information and fee regarding all antenna or tower notifications:

- 1) Specific legal description of site location using USPLSS and UTM
- 2) Maps locating project area, within region and within local area (aerial and USGS topo maps)
- 3) Project site plan maps, do not submit hand drawn or hand annotated maps
- 4) Site photographs (include images with exact location of construction site by taking shot with cell tower/base/compound location indicated or marked by stakes or flagging)
- 5) Professional cultural/archaeological survey report (Secretary of Interior's standards and guidelines for reports can be found at the National Park Service website ([www.nps.gov](http://www.nps.gov)).
- 6) Reference all documentation with TCNS #.
- 7) Submit a \$200.00 per-tower fee for consultation, processing, and handling (effective November 1). Make the check payable to the Osage Nation. On the memo line write all TCNS numbers.
- 8) A cell tower consultation procedures document is available by email, send an email request to Dr. Andrea A. Hunter at: [ahunter@osage-tribe.org](mailto:ahunter@osage-tribe.org).

8. Cultural Rights & Protection Director Betsy L Chapoose - Ute Indian Tribe - Ft. Duchesne, UT - electronic mail and regular mail

9. THPO Lenwood Tallbull - Northern Cheyenne Tribe - Lame Deer, MT - electronic mail and regular mail

If the applicant/tower builder receives no response from the Northern Cheyenne Tribe within 30 days after notification through TCNS, the Northern Cheyenne Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Northern Cheyenne Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore

they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

10. Deputy SHPO Carol Griffith - Arizona State Parks - Phoenix, AZ - electronic mail

11. Deputy SHPO William Collins - Arizona State Parks - Phoenix, AZ - electronic mail

12. SHPO Edward C Nichols - Colorado Historical Society - Denver, CO - regular mail

13. SHPO Bob L Blackburn - Oklahoma Historical Society - Oklahoma City, OK - regular mail

14. SHPO Wilson Martin - Utah State Historical Society - Salt Lake City, UT - electronic mail

15. Deputy SHPO Roger Roper - Utah State Historical Society - Salt Lake City, UT - electronic mail

16. Deputy SHPO Jim Dykman - Utah State Historical Society - Salt Lake City, UT - electronic mail

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 10/05/2010  
Notification ID: 68805  
Tower Owner Individual or Entity Name: Southeast Region Homeland Security  
Consultant Name: Jennet C Nguyen  
Street Address: 10845 Olive Blvd.  
Suite 310  
City: Saint Louis  
State: MISSOURI  
Zip Code: 63141  
Phone: 314-997-6111  
Email: jnguyen@trileaf.com

Structure Type: GTOWER - Guyed Tower  
Latitude: 37 deg 59 min 7.9 sec N  
Longitude: 102 deg 6 min 48.0 sec W  
Location Description: Near intersection of SR-89 and CO. Rd Aa  
City: Holly  
State: COLORADO  
County: PROWERS  
Ground Elevation: 1075.3 meters  
Support Structure: 45.7 meters above ground level  
Overall Structure: 45.7 meters above ground level  
Overall Height AMSL: 1121.0 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission

## Jennet Nguyen

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Wednesday, October 13, 2010 9:50 AM  
**To:** Jennet Nguyen  
**Cc:** tcns.fccarchive@fcc.gov; jblythe@jicarilla.net  
**Subject:** Reply to Proposed Tower Structure (Notification ID: 68805) - Email ID #2619915

Dear Jennet C Nguyen,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Tribal Historic Preservation Officer Jeff Blythe of the Jicarilla Apache Nation in reference to Notification ID #68805:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/05/2010  
Notification ID: 68805  
Tower Owner Individual or Entity Name: Southeast Region Homeland Security  
Consultant Name: Jennet C Nguyen  
Street Address: 10845 Olive Blvd.  
Suite 310  
City: Saint Louis  
State: MISSOURI  
Zip Code: 63141  
Phone: 314-997-6111  
Email: [jnguyen@trileaf.com](mailto:jnguyen@trileaf.com)

Structure Type: GTOWER - Guyed Tower  
Latitude: 37 deg 59 min 7.9 sec N  
Longitude: 102 deg 6 min 48.0 sec W  
Location Description: Near intersection of SR-89 and CO. Rd Aa  
City: Holly  
State: COLORADO  
County: PROWERS  
Ground Elevation: 1075.3 meters  
Support Structure: 45.7 meters above ground level  
Overall Structure: 45.7 meters above ground level  
Overall Height AMSL: 1121.0 meters above mean sea level

# Comanche Nation NAGPRA/THPO



March 3, 2011

Jennet Nguyen, Environmental Specialist  
Trileaf Corporation  
10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141

**RE: Existing Cell Tower  
TCNS # 68805**

Dear Ms. Nguyen:

In response to your request, regarding the above referenced project and upon review by staff of this office, the Comanche Nation has no comments at this time. However, in the advent of change or upon additional findings in regards to the same, we respectfully request that your office keep us advised in advance of work performed.

Sincerely,

Kelly Glancy, NAGPRA/THPO Assistant



Engineering • Environmental • Construction

10845 Olive Blvd , Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

November 24, 2010

**COMANCHE NATION**

Attention: Ms. Kelly Glancy  
P.O. Box 908, Lawton, OK 73502

RE: **Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**  
Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W  
Section 2, Township 24S, Range 42 W

Dear Ms. Glancy:

This project was originally submitted to your tribe via TCNS on October 8, 2010; TCNS #68805. Trileaf Corporation is in the process of completing a Section 106 Review at the above referenced property. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed or eligible for listing on the State or National Registers of Historic Places, or located in or on, or within the viewshed of an Indian Religious Site. Our research to date has not indicated that any of these conditions exists. However, Trileaf has learned your tribe has an interest in property located within this County.

The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 500' long and 12' wide. Currently the site consists of the broadband tower and compound, and the area surrounding the tower is rangeland used for grazing. Site location maps and photographs are enclosed for your reference as well as the archaeological survey. Please let us know if you have any objections or comments on this project as soon as possible.

If you need additional information or have any questions you may reach me at (314) 997-6111, fax at (314) 997-8066, or email [Jnguyen@trileaf.com](mailto:Jnguyen@trileaf.com). Again, thank you for your cooperation in this regard.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist  
*Enclosures*



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10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

November 12, 2010

**CHEYENNE-ARAPAHO TRIBES OF OKLAHOMA**

Attention: Lynette Grey  
P.O. Box 38  
Concho, OK 73022

RE: **Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**  
Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W

Dear Ms. Grey:

This project was originally submitted to your tribe via TCNS on October 8, 2010; TCNS #68805. Trileaf Corporation is in the process of completing a NEPA Review/Section 106 at the above referenced property. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed or eligible for listing on the State or National Registers of Historic Places, or located in or on, or within the viewshed of an Indian Religious Site. Our research to date has not indicated that any of these conditions exists. However, Trileaf has learned your tribe has an interest in property located within this County.

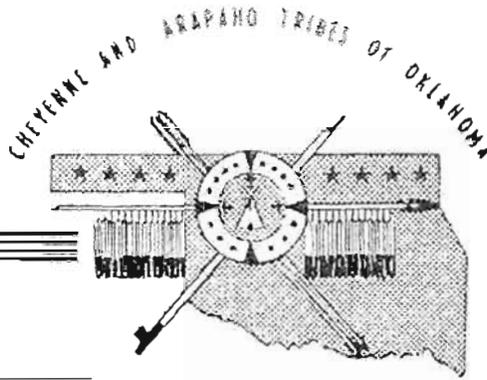
The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 500' long and 12' wide. Currently the site consists of the broadband tower and compound, and the area surrounding the tower is rangeland used for grazing. Site location maps and photographs are enclosed for your reference. Please let us know if you have any objections or comments on this project as soon as possible.

If you need additional information or have any questions you may reach me at (314) 997-6111, fax at (314) 997-8066, or email [Jnguyen@trileaf.com](mailto:Jnguyen@trileaf.com). Again, thank you for your cooperation in this regard.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist  
*Enclosures*

ADMINISTRATION  
&  
MANAGEMENT



P.O. Box 38  
Concho, Oklahoma 73022  
(405) 252-0345

November 23, 2010

Trileaf  
10842 Olive Blvd, Ste 310  
St. Louis, MO  
63141

RE: TCNS # /Project No. 313250 Holly Tower

To Whom It May Concern:

On behalf the Cheyenne and Arapaho Tribes, greetings and thank you for notice of the referenced project. I have reviewed your Consultation Request under section 106 of the National Historic Preservation Act regarding the project proposal and commented as followed.

- \_\_\_ The Cheyenne and Arapaho Tribes have no interest in this area geographically. There is no likelihood of eligible properties of religious and cultural significant to the Cheyenne and Arapaho Tribes in the proposed project site.
- \_\_\_ The Cheyenne and Arapaho Tribes have an objection or request additional project information. The Cheyenne and Arapaho Tribes require the following addition information in order to provide a finding of effect this proposed undertaking:  
\_\_\_\_\_
- M No objections. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the Cheyenne and Arapaho Tribes.
- \_\_\_ No Adverse effect. The Cheyenne and Arapaho Tribes have identified properties of cultural and religious significance within the area of effect that are believed to be eligible for listing in the National Register, for which there would be no adverse effect as a result of the proposed project.
- \_\_\_ Adverse effect. The Cheyenne and Arapaho Tribes have identified properties of cultural and religious significance within the area potential effect that are eligible for listing in the National Register. The Cheyenne and Arapaho Tribes believe that the proposed project would cause an adverse effect on these properties.

Best Regards,

  
Lynnette Gray  
Tribal Historic Preservation Officer (Acting)  
Planning and Development  
Cheyenne and Arapaho Tribes of Oklahoma  
100 Red Moon Circle, Box 38  
Concho, Oklahoma 73022  
v. (405) 422-7622  
f. (405) 422-1199  
e. lgray@c-a-tribes.org



## Tower Construction Notification

[FCC](#) > [WTB](#) > Tower Construction Notification

[FCC Site Map](#)

Logged In: ([Log Out](#)) [Section 106](#)

### Tower Construction Notification Refer a Notification

[Notifications Home](#)

#### Refer Notification

**Notification ID:** 68805  
**Notification Submitted:** 10/05/2010  
**Notification sent to the Tribe:** 10/07/2010

**Location:** Near intersection of SR-89 and CO. Rd Aa, Holly, CO

The Tribes/NHOs listed below were initially notified of this proposed tower construction.

#### Second Contact Date Information

Provide the date of your second contact attempting to obtain a response from each Indian Tribe/NHO about this proposed tower or antenna.

If you made your second contact with all Tribes/NHOs that have not responded on the same date, you may enter that date at the top of the screen below. If you made your second contacts with different Tribes/NHOs on different dates, you must enter the appropriate date for each Tribe/NHO that you select.

#### Select the Tribes/NHOs who have not responded

[Select All](#) | [Reset](#)

| Tribe/NHO Name                                | Comment   | Second Contact Date |
|---|---|---------------------|
| <a href="#">Apply to Selected Tribes/NHOs</a> |   |                     |
| Apache Tribe of Oklahoma                      | This Tribe/NHO has indicated that no response means they have no interest.              |                     |
| Cheyenne-Arapaho Tribes of Oklahoma           | This Notification has already been Referred to the FCC for this Tribe/NHO.              |                     |
| ☐ Comanche Nation                             |   |                     |
| Jicarilla Apache Nation                       | This Tribe/NHO submitted a <a href="#">response to your notification through TCNS</a> . |                     |
| Northern Arapaho                              | This Tribe/NHO has indicated that no response means they have no interest.              |                     |
| Northern Cheyenne Tribe                       | This Tribe/NHO has indicated that no response means they have no interest.              |                     |
| ☐ Osage Nation                                |   |                     |

Southern Ute Tribe

Ute Indian Tribe

This Notification has already been Referred to the FCC for this Tribe/NHO.

**CONTINUE** ▶

|                           |  |
|---------------------------|--|
| <b>ASR Help</b>           | <a href="#">ASR License Glossary</a> - <a href="#">FAQ</a> - <a href="#">Online Help</a> - <a href="#">Documentation</a> - <a href="#">Technical Support</a>                   |
| <b>ASR Online Systems</b> | <a href="#">TOWAIR</a> - <a href="#">CORES/ASR Registration</a> - <a href="#">ASR Online Filing</a> - <a href="#">Application Search</a> - <a href="#">Registration Search</a> |
| <b>About ASR</b>          | <a href="#">Privacy Statement</a> - <a href="#">About ASR</a> - <a href="#">ASR Home</a>   |

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Federal Communications Commission  
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Washington, DC 20554  
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10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
www.trileaf.com

March 7, 2011

**OSAGE NATION**

Attention: Dr. Andrea A. Hunter  
Tribal Historic Preservation Office  
627 Grandview, Pawhuska, OK 74056

**RE: Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**  
Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W  
Section 2, Township 24S, Range 42 W

Dear Dr. Hunter:

This project was originally submitted to your tribe via TCNS on October 8, 2010; TCNS #68805. Trileaf Corporation is in the process of completing a Section 106 Review at the above referenced property. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed or eligible for listing on the State or National Registers of Historic Places, or located in or on, or within the viewshed of an Indian Religious Site. Our research to date has not indicated that any of these conditions exists. However, Trileaf has learned your tribe has an interest in property located within this County.

The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 500' long and 12' wide. Currently the site consists of the broadband tower and compound, and the area surrounding the tower is rangeland used for grazing. There is no proposed ground disturbing activities involved with this project, and it is our understanding that a fee for review is thus not required. I have attached the SHPO clearance for this site. Photographs, maps, and the archaeological survey were sent back in November of last year. I am hoping that you will be able to make a quick comment on this project as it is without ground disturbing activities and is a fairly old project.

If you need additional information or have any questions you may reach me at (314) 997-6111, fax at (314) 997-8066, or email [Jnguyen@trileaf.com](mailto:Jnguyen@trileaf.com). Again, thank you for your cooperation in this regard.

Sincerely,

Jennet C. Nguyen



RECEIVED MAR 14 2011

## TRIBAL HISTORIC PRESERVATION OFFICE

Date: March 10, 2011

File: 1011-5Co-68805

RE: Holly Tower-Trileaf Project # 315250, Holly, Powers County, CO  
TCNS 68805

Trileaf Consulting  
Ms. Jennet C. Nguyen  
10845 Olive Blvd, Suite 310  
St. Louis, MO 63141

Dear Ms. Nguyen,

The Osage Nation Historic Preservation Office has evaluated your submission and concurs that the proposed cell tower located near intersection of SR-89 and Co. Road AA, Holly, Powers County, Colorado **will not adversely affect properties of cultural or sacred significance to the Osage Nation**. The findings of this S106 review for the cell has resulted in a determination of "No Properties."

In accordance with the National Historic Preservation Act (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings that are subject to the review process are referred to in S101 (d) (6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969). **The Osage Nation concurs that as a part of the scoping process Trileaf Consulting, fulfilled NHPA and NEPA compliance by consulting with the Osage Nation Historic Preservation Office in regard to the proposed project referenced as cell tower site- Holly Tower-Trileaf Project # 315250, Holly, Powers County, CO, TCNS 68805.**

The Osage Nation has vital interests in protecting its historic and ancestral cultural resources. We do not anticipate that this project will adversely impact any cultural resources or human remains protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, or Osage law. **If, however, artifacts or human remains are discovered during project construction, we ask that work cease immediately and the Osage Nation Tribal Historic Preservation Office be contacted.**

Should you have any questions or need any additional information please feel free to contact me at the number and/or email address listed below. Thank you for consulting with the Osage Nation on this matter.

Dr. Andrea A. Hunter  
Tribal Historic Preservation Officer



Engineering • Environmental • Construction

10845 Olive Blvd., Suite 310  
St. Louis, Missouri 63141  
Tel: (314) 997-6111  
[www.trileaf.com](http://www.trileaf.com)

November 12, 2010

**UTE INDIAN TRIBE**

Attention: Ms. Betsy Chapoose  
P.O. Box 190  
Duchesne, UT 84026

**RE: Southeast Region Homeland Security – Holly Tower – Trileaf Project #315250**  
Near intersection of SR-89 and Co. Road AA, Holly CO 81047  
Prowers County, Durkee Creek NE Quadrangle (DeLorme)  
Latitude: 37° 59' 7.9" N Longitude: 102° 6' 47.998" W

Dear Ms. Chapoose:

This project was originally submitted to your tribe via TCNS on October 8, 2010; TCNS #68805. Trileaf Corporation is in the process of completing a Section 106 Review at the above referenced property. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure or object, significant in American history, architecture, archeology, engineering or culture, that is listed or eligible for listing on the State or National Registers of Historic Places, or located in or on, or within the viewshed of an Indian Religious Site. Our research to date has not indicated that any of these conditions exists. However, Trileaf has learned your tribe has an interest in property located within this County.

The project consists of the review of a 150' tall broadband tower with 3 guy wire anchors. The tower compound is approximately 22' x 44' and each guy wire easement is approximately 100' long. In addition, a gravel access road off County Road AA is approximately 500' long and 12' wide. Currently the site consists of the broadband tower and compound, and the area surrounding the tower is rangeland used for grazing. Site location maps and photographs are enclosed for your reference. Please let us know if you have any objections or comments on this project as soon as possible.

If you need additional information or have any questions you may reach me at (314) 997-6111, fax at (314) 997-8066, or email [Jnguyen@trileaf.com](mailto:Jnguyen@trileaf.com). Again, thank you for your cooperation in this regard.

Sincerely,

Jennet C. Nguyen  
Environmental Specialist  
*Enclosures*

## APPENDIX C: FCC NEPA Checklist

