

# Draft Environmental Assessment

Right-of-Way Permit Application for Cell Tower Project

on

Wichita Mountains Wildlife Refuge

October 2022

Prepared by

Horizon Environmental Services, Inc.

Austin, Texas

and

Wichita Mountains Wildlife Refuge

Indianapolis, OK

DRAFT

## Table of Contents

Proposed Action.....	2
Background .....	2
Purpose and Need for the Action .....	3
Alternatives.....	4
Alternative A – Current Management – No Action Alternative.....	4
Alternative B – Issue ROW Permit – Proposed Action Alternative .....	4
Mitigation Measures and Best Practices .....	4
Affected Environment and Environmental Consequences.....	5
Natural Resources.....	6
Wildlife and Aquatic Species.....	6
Habitat and Vegetation.....	8
Geology and Soils.....	9
Air Quality .....	10
Wilderness or Other Special Designation .....	11
Visitor Use and Experience .....	13
Cultural Resources .....	14
Socioeconomics .....	17
Environmental Justice.....	18
Monitoring .....	18
Summary of Analysis.....	18
List of Sources, Agencies and Persons Consulted .....	19
Public Outreach.....	20
Determination.....	20
References .....	21
Appendix A - OTHER APPLICABLE STATUTES, EXECUTIVE ORDERS, AND REGULATIONS .....	22
Appendix B – Maps .....	24

# Right-of-Way Permit Application for Cell Tower Project

## on

### Wichita Mountains Wildlife Refuge

This Draft Environmental Assessment is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. The National Environmental Policy Act requires examination of the effects of proposed actions on the natural and human environment.

#### Proposed Action

The U.S. Fish and Wildlife Service (Service) is proposing to issue a right-of-way (ROW) permit to allow Branch Towers III, LLC to construct a 320-foot-tall guyed cellular communications tower located 1275.58 yards East of HWY 115, and 458.75-yards South of HWY 49, within Wichita Mountains Wildlife Refuge (refuge). The project would involve construction of a 97.5-meter- (320.0-foot-) tall, guyed cell tower located approximately 1.3 kilometers (0.8 mile) southeast of the intersection of State Highway (SH) 49 (a.k.a. Cache Meers Road) and SH 115, roughly across the highway and slightly east of the Wichita Mountains Wildlife Refuge Visitor Center. While the proposed cell tower pad would measure less than 0.1 hectare (0.1 acre) in size, the overall lease area, inclusive of three guy wire anchor locations, would cover an area of 1.0 hectare (2.4 acres). The project would also involve construction of an approximately 0.5-kilometer- (0.3-mile-) long by 9.1-meter- (30.0-foot-) wide access road providing access to the cell tower site from SH 49 to the north. Collectively, the proposed cell tower site and access road would cover an area of approximately 1.4 hectares (3.5 acres), including the 1.0-hectare (2.4-acre) lease area and the 0.4-hectare (1.1-acre) access road right-of-way. Fiber optic lines will be run from the communications tower to the refuge headquarters and Visitor Center along existing roadways to minimize impacts.

A proposed action may evolve during the National Environmental Policy Act (NEPA) process as the agency refines its proposal and gathers feedback from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The proposed action will be finalized at the conclusion of the public comment period for the Environmental Assessment (EA).

#### Background

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The mission of the NWRS, as outlined by the National Wildlife Refuge System Administration Act (NWRSA), as amended by the National Wildlife Refuge System Improvement Act (16 U.S.C. 668dd et seq.), is to:

*“... to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”*

The refuge was established pursuant to Presidential Proclamation 563, on June 2, 1905. The primary purpose of the refuge is *“...for the protection of game animals and birds and shall be recognized as a breeding place thereof.”*

The refuge is a tract of 59,020 acres embracing a major portion of the ancient Wichita Mountains in southwestern Oklahoma. Protection of this area dates back to 1901 when it was established as a forest reserve by President McKinley and 1905 when President Roosevelt re-designated the area as the Wichita Forest and Game Preserve. The long history of the preservation of the refuge has protected this unique vast land as a reminder of southwestern Oklahoma’s natural conditions prior to European settlement.

On October 23, 1970, the Wichita Mountains Wilderness Area was established by Public Law 91-504. It consists of two units totaling 8,570 acres. The Public Use Area (PUA) of the refuge, an administrative designation, is an area for public access, intended to benefit public use opportunities and promote awareness of the refuge’s wildlife and habitats. The PUA covers 24,088 acres of the south and southeastern portions of the refuge. The refuge consists of approximately 92.22 square miles in Comanche County, Ok.

Management goals established by the Wichita Mountains Wildlife Refuge Comprehensive Conservation Plan (USFWS 2013) relevant to this action include:

*To provide visitors a chance to enjoy a world-class, wildlife-focused experience through public use opportunities that educate and increase the quality of life for current and future generations and promote the long-term health of the refuge.*

*To administer safe, well-maintained, and energy-efficient facilities that allow the public and staff to enjoy and support the purpose of the refuge and the mission of the NWRS.*

The refuge currently utilizes existing cellular telephone and data service provided by towers located off refuge resulting in poor coverage in many areas of the refuge. Visitors are often unable to make phone calls or utilize mapping applications to determine their location while hiking which can result in delays in emergency response for search and rescue operations for injured or lost hikers and impede communications between emergency responders. Visitors that are camping in the refuge often must leave the refuge to obtain suitable cellular service to book reservations on recreation.gov, creating additional expense and inconvenience for campers and camp hosts.

### **Purpose and Need for the Action**

The purpose of this proposed action is to increase cellular service and expand coverage within and around the refuge to better meet the needs of the visiting public and support refuge goals and objectives. There is limited cell service in the area and the proposed action would provide for expanded services to customers as well as function as a FirstNet site to provide expanded bandwidth for emergency response

activities. The tower would also host radio repeaters for use by the refuge and partner agencies for improved emergency communications.

The proposed action meets the management goals of the refuge to “To administer safe, well-maintained, and energy-efficient facilities that allow the public and staff to enjoy and support the purpose of the refuge and the mission of the NWRS” (USFWS 2013). By providing expanded service in the area, it also increases the bandwidth for the emergency response network, thus creating a safer environment for the public and staff. Refuge staff will benefit from increased wireless connectivity that increases efficiency in refuge management and fiber optic lines will enhance the capabilities of the refuge’s Visitor Center. Following the construction of new administrative facilities near the existing Visitor Center, the fiber optic lines will also improve the efficiency of the staff and increase logistical capabilities for administering natural resource protection and public use programs.

## **Alternatives**

### **Alternative A – Current Management – No Action Alternative**

Under the no action alternative, the Service would not issue the ROW permit which would prohibit the project from being implemented resulting in continued inadequate cellular coverage within the refuge and surrounding areas. Emergency communications would remain limited. Internet service to the Visitor Center would not be upgraded and frequent outages would continue. Visitors that are traveling to the refuge to camp would continue to make reservations online prior to travel or be required to travel off refuge to make reservations.

### **Alternative B – Issue ROW Permit – Proposed Action Alternative**

Under the proposed action alternative, the Service would issue a ROW permit to allow Branch Towers III, LLC to construct a 330’ guyed cellular communications tower with associated infrastructure. Increased cellular coverage would result across a large portion of the refuge, and additional radio coverage would be provided for refuge and partner agency use. The FirstNet Site would provide additional bandwidth for emergency response. The associated fiber optic cables would provide improved internet service to the Visitor Center and, upon completion of construction, the new administrative and maintenance complex.

Section 106 consultation has been conducted in accordance with the Advisory Council on Historic Preservation’s regulations (36 CFR Part 8000) and it has been determined that the proposed project will have no adverse effect on refuge properties that have previously been determined eligible for listing on the National Register of Historic Places.

See Appendix B for figures.

## **Mitigation Measures and Best Practices**

Mitigation measures include:

1. Avoidance of an impact by not taking an action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of an action; or
3. Rectifying impacts by repairing, rehabilitating, or restoring the affected environment.

Best management practices can include an array of alternatives that produce desirable results with minimal impact on other resources.

*Migratory Bird Mitigation Measures and Best Management Practices*

Measures to minimize risks to ground nesting birds and avian collision with the proposed structure include a pre-ground clearing nest survey if such activities are expected to occur during the nesting season, and the use of bird diverters on guyed wires every 15' or as otherwise directed, and the use of med-dual avian friendly lighting system as required by the FAA.

*Soil Mitigation Measures and Best Management Practices*

Contractors would provide erosion control methods such as watering dry soils and structures such as silt fences as necessary to prevent wind-borne dust and water-borne silt from leaving the immediate work areas. Access points would be designated and flagged to minimize soil compaction. Mats or boards would be used to access equipment during wet conditions to prevent rutting and soil loss.

*Archeology Mitigation Measures and Best Management Practices*

If paleontological, archaeological or historical remains (including burials or skeletal material) were encountered, all work would be immediately halted and a construction representative, contracting officer representative, contracting officer or a Service representative would be notified. The contracting officer would notify the regional archaeologist so the provisions of 36 CFR 800.7 and other relevant laws were followed. Work would cease in the immediate vicinity until permitted to resume by written order from the contracting officer. Work in other areas may proceed as approved by the contracting officer. All mitigation measures agreed to in consultation with the Oklahoma State Historic Preservation Office in relation to this project would be administered.

All construction debris will be removed by the contractor, who will maintain a clean work site to prevent litter and spread of waste and debris.

**Affected Environment and Environmental Consequences**

This section is organized by affected resource categories and for each affected resource discusses both (1) the existing environmental and socioeconomic baseline in the action area for each resource and (2) the effects and impacts of the proposed action and any alternatives on each resource. The effects and impacts of the proposed action considered here are changes to the human environment, whether adverse or beneficial, that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. This EA includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an "affected resource." Any resources that will not be more than negligibly impacted by the action have been dismissed from further analyses.

The refuge and a few adjoining lands to the north are an island of relatively well-functioning ecosystems in southwestern Oklahoma. Other properties in the area are primarily urban, farmed, or heavily grazed. The refuge consists of a diverse ecosystem of Cross Timbers and the largest remaining stretch of native southern mixed-grass, which supports a diversity of wildlife species. These species, including both game and non-game, are important contributors to the overall biodiversity of the refuge.

The refuge is divided into three distinct terrestrial habitats: rocklands (2,474 acres), central mixed-grass prairie (30,941 acres), and Cross Timbers oak forest and woodland (24,702 acres). The Cross Timbers habitat is characterized by a mosaic of forest, woodland, and savanna. The central mixed-grass prairie contains elements from both shortgrass and tallgrass prairies with species densities and distributions controlled primarily by soil moisture and topography. The proposed construction would occur mainly in Cross Timbers oak and woodlands. The refuge is at a higher elevation than the surrounding areas and is thereby situated at the top of the watershed.

The section below provides additional, brief descriptions of each resource affected by the proposed action. For more detailed information regarding the affected environment, please see the refuge's Comprehensive Conservation Plan, which can be found here:

[https://www.fws.gov/refuge/Wichita\\_Mountains/what\\_we\\_do/planning.html](https://www.fws.gov/refuge/Wichita_Mountains/what_we_do/planning.html)

Wetlands and water resources (quality and quantity) will not be analyzed further in this EA because these resources do not exist within the project area.

## Natural Resources

### Wildlife and Aquatic Species

#### **Affected Environment**

##### ***Description of Affected Environment for the Affected Resource***

In a region and transition zone where the distributions of eastern and western wildlife species overlap, the refuge supports habitats high in biodiversity. From prairie habitats to oak savannas and rugged granite peaks, the refuge offers a diversity of animal and plant communities. Vertebrate wildlife species that occur in the project area include game and nongame species, 57 mammal species, 292 bird species, 19 amphibian species, 55 reptile species, and 33 fish species. A wide variety of wildlife are expected to utilize the various habitat types present within the project area, but these habitat types are not unique to the project area and are found throughout the refuge and on adjacent properties. Approximately 19 acres of secondary vireo nesting habitat occurs within the project areas of the new headquarters/maintenance site, Job Corp site, and bunkhouse site. A wildfire in 2011 significantly reduced the secondary habitat in the area of the new administrative facilities and thus has provided sub-optimal nesting habitat for vireos in this area. The refuge currently supports the largest breeding population of vireos in Oklahoma and contains 18,356 acres of primary nesting habitat and 8,660 acres of secondary nesting habitat.

##### ***Description of Environmental Trends and Planned Actions***

The Service is currently completing a project to install a new water delivery system to provide potable water to visitors, volunteers, and staff of the refuge at the Visitor Center, Environmental Education Center complex area, Doris Campground, and Holy City. Minor disturbance impacts are expected to prairie dogs and burrowing owls during the construction and installation phase. The water delivery system would be installed along roadways where disturbance already occurs; the impacts during installation and construction are not anticipated to be significant and are temporary in nature. There



would be no anticipated change in prairie dog or burrowing owl presence in the area upon project completion.

## **Impacts on Affected Resource**

### **Alternative A**

No direct impacts to wildlife and aquatic species are expected from continuation of current management. Under current management, refuge personnel have limited cellular and radio communications which indirectly influence the refuge's ability to meet the purpose of establishment by restricting capacity to manage wildlife and associated habitat and respond to emergency situations.

### **Alternative B**

The designated footprint of the new construction site is classified as mixed-grass prairie. The expected footprint will be as small as reasonably possible, between 3-4 acres, with size dependent on geotechnical results and topography. Fiber optic lines would be installed in or very close to previously disturbed areas along existing roadways. Vegetation and trees will not be completely removed from the footprint, some trees and native vegetation will remain. Impacts to wildlife include disturbance and displacement. Visual and noise disturbances could disrupt normal wildlife behavior for the duration of construction activities.

Impacts to non-nesting migratory birds within the project area will be minimal due to the mobility of avian species, the minimal amount of disturbance that will be caused by the proposed action and the resulting construction and operation of the proposed project, and the temporary nature of construction activities. The proposed project will avoid destruction of active migratory bird nests and take of migratory birds. Thus, the proposed action will not adversely affect birds protected under the Migratory Bird Treaty Act (MBTA).

Construction of the cellular tower in previously undisturbed habitat may impact some grassland-nesting birds by removing potential nesting sites. These direct impacts would be minimal because sufficient habitat is available in the immediate vicinity of this disturbed area to provide abundant nesting opportunities for birds. The refuge has an area designated as the Special Use Area. General public access is not allowed in the Special Use Area and the limited allowed uses (i.e. elk and deer hunting) are heavily regulated to provide undisturbed habitat. The Special Use Area boundary is in close proximity to this location. The intended purpose of the special use area is to allow natural processes and conditions for the benefit of wildlife. This established area protects the natural features in over half the refuge.

No bald eagles or eagle nests within or immediately adjacent to the project area were observed during field evaluations conducted in July 2021. The construction and operation of the proposed project are expected to be limited to the project area and the immediate vicinity and are not expected to affect migration patterns or the viability of migrant populations. Due to the highly localized nature of the effects, the proposed project is not expected to result in significant direct, indirect, or cumulative adverse effects to birds protected under the MBTA or Bald and Golden Eagle Protection Act (BGEPA).

Construction activities would include use of heavy equipment and machinery. Vehicular traffic to the work site, as well as foot traffic and heavy equipment operations, have the potential to flush birds and wildlife. These short-term direct effects would be temporary since sufficient habitat is available to

provide security to displaced wildlife in the immediate vicinity of the project site and roads used to access the site.

Once construction is complete of the tower, long-term indirect effects on wildlife are anticipated due to continued visitation to the tower for maintenance. These effects are expected to be minimal, and it is anticipated that wildlife movement and activity would return once construction is complete.

Direct effects such as mortality could affect less mobile wildlife like reptiles and small mammals who are not able to avoid construction equipment (i.e. tractors, excavators, and vehicles).

An Intra-Service Section 7 biological evaluation has been completed through consultation with the Service's Oklahoma Ecological Services Field Office. No critical habitat and no known listed or proposed species reside in the project area; therefore, no Endangered Species Act mitigation measures would be necessary.

Beneficial impacts on wildlife are also anticipated under the proposed action based on the refuge's improved ability to efficiently support the management of wildlife and associated habitat through improved cellular service and radio communications. The ability of hikers to navigate with mapping applications will likely reduce off-trail hiking and wildlife disturbance. Increased cellular and radio coverage will aid in better direction and response coordination among emergency responders, also reducing off-trail traffic and disturbance.

#### Habitat and Vegetation (including vegetation of special management concern)

##### **Affected Environment**

###### *Description of Affected Environment for the Affected Resource*

The project area is situated on a gently rolling, dissected upland that forms an interfluvium between two intermittent, unnamed tributaries of Crater Creek within the Cambrian-age Wichita Mountains in the Mixed-Grass Plains district of southwestern Oklahoma (Albert and Wyckoff 1984). The mixed-grass prairies are dominated by little bluestem (*Schizachyrium scoparium*), Indiangrass (*Sorghastrum nutans*), big bluestem (*Andropogon gerardii*), switchgrass (*Panicum virgatum*), sideoats grama (*Bouteloua curtipendula*), hairy grama (*Bouteloua hirsute*), blue grama (*Bouteloua gracilis*), silver bluestem (*Bothriochloa laguroides*), buffalograss (*Bouteloua dactyloides*), and Canada wildrye (*Elymus canadensis*). Vegetation in the project area consists primarily of short to medium-high grasses with a small, moderately densely wooded area in the southern corner of the proposed cell tower lease site.

Refuge staff members and volunteers treat non-native invasive species annually to prevent the degradation of natural communities. Invasive species can have a negative effect on the habitat and modify both the appearance and the utility of the landscape. The refuge has demonstrated a correlation between the density and distribution of invasive plants and their occurrence relative to roads and trails.

###### *Description of Environmental Trends and Planned Actions*

Fort Sill is actively collaborating with Land Legacy of Tulsa, Oklahoma to proactively manage land development around Fort Sill. The program is designed to protect the installation from urban sprawl encroachment by establishing a buffer around critical ranges and training lands. The purpose of the Army Compatible Use Buffer program is not to purchase land but to acquire the development rights

(conservation easements) on land surrounding Fort Sill to prevent encroachment. The program is seeking to protect 14,080 acres (USACE 2019).

## **Impacts on Affected Resource**

### **Alternative A**

Under the No Action Alternative, the permit would not be issued, and the cell communications tower would not be built; thus, there would be no impacts associated with tower construction, fiber optic line installation, or other ground disturbance activities.

### **Alternative B**

Under Alternative B, impacts on vegetation and habitat will occur. All construction activities would occur within the designated footprint which will be as small as reasonably possible, not exceed 5 acres and is expected to be under 4 acres. Impacted areas would be revegetating to native vegetation as approved by the refuge manager along the fiber cable installation route and in the area of the footprint not occupied by facilities to reduce or eliminate the potential likelihood of adverse effects.

Minimal land disturbance is anticipated for the restoration process, to include recontouring the land to native contours where needed due to rutting and removal of surface vegetation through tire damage and skidding from equipment. Invasive species will be treated and controlled prior to seeding to native plants and throughout the restoration process.

New construction will extend into previously undisturbed habitat. Removal of vegetation will result in a direct loss of habitat. Trees and other vegetation would be removed to facilitate infrastructure.

Beneficial impacts on habitat and vegetation are also anticipated under the proposed action based on the refuge's improved ability to efficiently support the management of wildlife and associated habitat through improved cellular service and radio communications. The ability of hikers to navigate with mapping applications will likely reduce off-trail hiking and associated disturbance of vegetation. Increased cellular and radio coverage will aid in better direction and response coordination among emergency responders, also reducing off-trail traffic and habitat disturbance.

## **Geology and Soils**

### **Affected Environment**

#### ***Description of Affected Environment for the Affected Resource***

The project area is situated on a gently rolling, dissected upland that forms an interfluvium between two intermittent, unnamed tributaries of Crater Creek to the east and west. Medium-sized granite boulders and cobbles are exposed on the modern ground surface sporadically across the entire project area. The topography within the project area slopes to the south, and elevations range from approximately 450.8 to 458.7 meters (1479.0 to 1,505.0 feet) above mean sea level (amsl). Drainage within the project area is to the southwest.

Soil map units within the project area are Vernon-Clairemont Complex and Brico-Rock outcrop complex. Spatial data and other information regarding soils were obtained from the Natural Resource Conservation

Service (NRCS) Web Soil Survey (WSS) (NRCS 2021) for Comanche County and the official soil series description website (NRCS 1967). Soils throughout the project area are stable and no severely eroded areas were observed during field evaluations.

#### ***Description of Environmental Trends and Planned Actions***

There will be minimal disturbance to soils from trenching and/or boring to install electric lines and the cellular phone tower. Fiber Optics will be run along roadsides to serve the tower; all roadsides have been previously disturbed, except for the final approximately 0.25 miles.

#### **Impacts on Affected Resource**

##### **Alternative A**

Under the No Action Alternative, the permit would not be issued, and the cell communications tower would not be built; thus, there would be no impacts associated with tower construction, fiber optic line installation, or other ground disturbance activities.

##### **Alternative B**

Soil disturbance increases the potential for soil erosion, compaction, soil profile mixing, and loss of soil productivity. Once vegetation is removed, soils become susceptible to wind and water erosion. Water erosion could lead to increased sedimentation in nearby drainages. During the construction period, it is anticipated that roughly 2.5 acres of grasslands would be temporarily disturbed as laydown areas for equipment and spoils. Permanent ground disturbance impacts for the facility would be limited to approximately 1/10 of an acre.

The proposed project's design features and construction would include suitable best management practices (BMPs) to prevent soil erosion. All disturbed soils would be replaced and stabilized to adhere to correct water drainage and wind erosion standards. After construction is completed, interim reclamation would consist of reseeding, with desirable species, all areas not needed for long-term operations where vegetation was removed. If initial revegetation is not successful, areas would be reseeded until desirable species are established. These mitigation measures would stabilize soils and prevent excessive erosion.

Construction would last approximately 7-10 weeks and would require minimal equipment. Therefore, there is minimal potential for leaks and spill of fluids from construction equipment to contaminate soils and the potential for soil contamination is low. Due to the footprint of the disturbance, construction impacts are anticipated to be temporary and would not result in long-term soil erosion.

Soil loss in the construction area is expected since construction would occur in a previously undisturbed area. Impacts associated with this alternative would result in disturbance to soils from construction activities on approximately 3-5 acres. The site is not expected to exceed 4 acres.

#### **Air Quality**

##### **Affected Environment**

#### ***Description of Affected Environment for the Affected Resource***

The refuge wilderness areas are designated as a Class I Clean Air Areas under the Clean Air Act. The refuge coordinates with the Service's Air Quality Branch to ensure appropriate and consistent air quality

monitoring, including the Interagency Monitoring of Protected Visual Environments (IMPROVE) station to ensure protection of the refuge's Class I status. Air quality on the refuge is primarily influenced by off-site sources, carried by prevailing southeast transport winds. Based on data from IMPROVE, the air quality monitoring site on the refuge, soil dust, soot, and sulfates are the top particulates within our air shed (IMPROVE 2017). Natural and man-made contributors of these particulates include dust storms, wildfire/prescribed fires, unpaved roads, vehicles, and coal-fired power plants.

#### ***Description of Environmental Trends and Planned Actions***

In Comanche County the majority of emissions occur from (1) on-road and non-road mobile sources (volatile organic compounds [VOCs], CO, NO<sub>x</sub>, and carbon dioxide equivalent [CO<sub>2</sub>e]), (2) prescribed fires (CO and SO<sub>x</sub>), (3) solvent/surface coating usages (VOCs), and (4) fugitive dust from unpaved roads and agricultural activities (USACE 2019).

Air pollution from nearby off-refuge sources, including industry, power plants, and automobiles, exists in the county. Fires from explosives and other military activities at the adjacent Fort Sill generate smoke that can temporarily affect the air quality of the refuge. The smoke from military activities could add to smoke from prescribed fires occurring on the refuge, further adversely affecting the refuge's air quality. Reduced air quality may negatively affect the health of wildlife or their food sources. The planned action to install a cell tower may produce limited and short-term emissions from equipment during the construction phase and future service visits.

#### **Impacts on Affected Resource**

##### **Alternative A**

Under the No Action Alternative, the permit would not be issued, and the cell communications tower would not be built; thus, there would be no direct impacts associated with the proposed project. Current operations would result in a negligible increase in emissions from vehicles as visitors often drive off refuge to obtain adequate cellular signal to make camping reservations and download maps and data for use while visiting the refuge.

##### **Alternative B**

Under the Proposed Action Alternative, during construction, installation, and operational activities on the cell tower and associated fiber optic lines, temporary air quality impacts could result from (1) combustive emissions due to the use of fossil fuel powered equipment and (2) fugitive dust due to the operation of equipment on exposed soil. Implementation of standard fugitive dust control measures would ensure that construction activities associated would not result in significant impacts to air quality. We anticipate that equipment emissions and dust associated with construction would not be considered significant because they would only occur during a 7-to-10-week period, the work areas would be revegetated, and best management practices for dust control would be implemented.

Air quality associated with the proposed action is not expected to have any measurable changes and is not expected to contribute to measurable negative impacts on air quality.

#### **Wilderness or Other Special Designation**

## **Affected Environment**

### *Description of Affected Environment for the Affected Resource*

On October 23, 1970, the Wichita Mountains Wilderness Area was established by Public Law 91-504. It consists of two units totaling 8,570 acres. The popular Charon's Garden unit (5,723 acres) is located in the southwestern portion of the refuge, within the public use area; the North Mountain unit (2,847 acres) is located in the north-central part of the refuge within the special use area. "Special use area" is an administrative designation for an area with restricted public access intended to benefit natural conditions and allow for natural processes. The special use area covers 34,932 acres of the northwestern part of the refuge. "Public use area" is an administrative designation of an area for public access, intended to benefit public use opportunities, including hunting and fishing, and promote awareness of the refuge's wildlife and habitats. The public use area covers 24,088 acres of the southern and southeastern portions of the refuge.

### *Description of Environmental Trends and Planned Actions*

The Charons Garden Wilderness is open to many public uses, including hiking-based opportunities for wildlife observation and photography, camping (with a permit), and rock sports. The Refuge also has a small amount of guided interpretive hikes and organized environmental education with a Leave No Trace message or theme. Two designated trails totaling about 3.5 miles are maintained by hand.

Charons Garden Wilderness has fishing and controlled hunt access, along with other allowable uses. The North Mountain Wilderness Area has very limited public access for hunting, which is controlled by the refuge due to its location inside the Special Use Area.

## **Impacts on Affected Resource**

### **Alternative A**

Visitors who are injured or become lost in the Wilderness Area cannot make emergency calls or utilize mapping or other navigational applications on cellular devices in most areas of the Wilderness due to limited cellular service. This increases the number of search and rescues and causes impacts to the Wilderness Area including increased foot traffic off designated trails and fixed wing and helicopter use above the Wilderness for search and rescue activities.

### **Alternative B**

If implemented, the proposed action alternative would have negligible impacts on Wilderness Areas within the refuge and beneficial long-term impacts. The new infrastructure for the cellular tower would be about 5 miles from the Wilderness boundary and not be visible from most locations within the Wilderness Area.

Beneficial impacts are also anticipated under the proposed action based on the refuge's improved ability to efficiently support the management of Wilderness through improved cellular service and radio communications. The ability of hikers to navigate with mapping applications will likely reduce off-trail hiking and wildlife disturbance. Increased cellular and radio coverage will aid in better direction and response coordination among emergency responders, also reducing off-trail traffic and disturbance. The public will have a greater chance of relaying their location in an emergency, thus reducing the amount of time and traffic in and out of the Wilderness Area to complete a rescue.

## Visitor Use and Experience

### **Affected Environment**

#### *Description of Affected Environment for the Affected Resource*

The refuge hosts approximately 2.4 million visitors per year, with an average of 150,000 visits at the Visitor Center annually. These visitors (annual approximate visits in parenthesis) engage in a variety of recreational activities including but not limited to hunting (591), fishing (12,123), hiking (202,049), rock climbing (4,000), camping (27,000), scuba diving (100), wildlife observation (2,166,450), and wildlife photography (1,414,432). These activities primarily occur in the PUA, comprising approximately 24,088 acres of the south and southeastern portions of the refuge.

Roughly one percent of the 2.4 million annual visitors to the refuge stay in Doris Campground, while another 7-8 percent stop at the Visitor Center.

The popular Charon's Garden unit (5,723 acres) is located in the southwestern portion of the refuge, within the public use area; the North Mountain unit (2,847 acres) is located in the north-central part of the refuge within the special use area. "Special Use Area" is an administrative designation for an area with restricted public access intended to benefit natural conditions and allow for natural processes. The special use area covers 34,932 acres of the northwestern part of the refuge. "Public use area" is an administrative designation of an area for public access, intended to benefit public use opportunities, including hunting and fishing, and promote awareness of the refuge's wildlife and habitats. The public use area covers 24,088 acres of the southern and southeastern portions of the refuge. The proposed cell tower will be unavoidable visible from many of the resource areas within the refuge.

#### *Description of Environmental Trends and Planned Actions*

Local opportunities for recreation includes a historic district, concerts, car shows, casinos, event centers, and private and public hunting lands. Lake Elmer Thomas Recreation Area, Lake Lawtonka, Medicine Park Aquarium and Natural Sciences Center, and other parks in the community provide opportunities for water sports, camping, and other nature-based and outdoor recreation.

### **Impacts on Affected Resource**

#### **Alternative A**

Under this alternative, the lack of cellular service would continue to negatively impact the visitor experience. Visitors who are injured or become lost cannot make emergency calls or utilize mapping or other navigational applications on cellular devices in most areas of the refuge due to limited cellular service. Visitors who want to camp on the refuge often have to travel off refuge to obtain adequate cellular signal to make camping reservations on recreation.gov. Additionally, visual impacts to the landscapes on the refuge would continue as off-trail activities negatively impact vegetation and habitats.

#### **Alternative B**

Under the Proposed Action Alternative, the cell tower would be visible from many of the refuge resource areas and the sense of solitude that is supposed to prevail there according to the intent of the Wilderness Act may continue to erode. Some areas will be impacted more significantly than others. The tower will be highly visible from most areas on the east side of the refuge and from some areas at higher elevations across the remainder of the refuge. Temporary negative impacts to the auditory and visual experience of

visitors would occur during construction including temporary traffic disturbance on Hwy 49/115 from the movement of heavy equipment.

Beneficial impacts on the visitor experience are also anticipated under the proposed action based on the refuge's improved ability to efficiently support the management of wildlife and associated habitat through improved cellular service and radio communications. The ability of hikers to navigate with mapping applications will reduce the number of visitors that become lost and decrease calls for emergency assistance. Increased cellular and radio coverage will aid in better direction and response coordination among emergency responders, also reducing disturbance to hikers and other user groups during search and rescue activities.

Improved cellular and internet for the staff increases efficiency to better administer public use programs. Increased cellular service could also open Visitor Services opportunities including various methods of interpretation or education that can be accomplished with a phone application, cellular service, and mobile data.

## Cultural Resources

### Affected Environment

#### *Description of Affected Environment for the Affected Resource*

Periods of human occupation throughout Oklahoma have been heavily documented and extend from the widely accepted Clovis complex (possibly even pre-Clovis) forward. Consistent with much of its surroundings, assessments of the cultural resources at the refuge reveals a rich collection of archaeological and historical sites. While the refuge has never been fully surveyed, there have been a number of studies that have identified potential sites and documented existing sites spanning from prehistory, through Western contact and expansion, and into the modern day. The largest of these surveys (Bastain 1966) did not evaluate many of these sites for inclusion into the National Register of Historic Places (NRHP). Since that time, few sites have been professionally revisited over the last 50 years, denoting their eligibility for addition to the NRHP as undetermined or unknown.

Currently, six properties have been nominated to the NRHP: Holy City district, Boulder Cabin, Buffalo Lodge, Cedar Creek Arrastra, Ferguson House, and Ingram House. Each of these sites is a product of historic Euroamerican development. The built structures reflect architecture consistent with the settlement and Euroamerican occupation of the Wichita Mountains in the early twentieth century. These historic structures are, for the most part, well known and well preserved. While not included in the NRHP, additional historic properties exist from the 1930s Civilian Conservation Corps/Works Progress Administration programs. To date, no recommendation has been made to include these resources on the NRHP, but they do exist as part of a wider historical landscape and may need further long-term consideration.

Prehistoric, archaeological sites across the refuge have received minimal monitoring and management. Beyond their initial survey, the majority of documented locations have not been revisited. Site conditions are largely unknown; as such, adverse impacts are unknown. Based upon available information, however, the majority of the approximately 45 sites are believed to be late Archaic (c. 5,000 BC–1,000 BC) and/or



Plains Woodland (c. 1000 BC–1400 AD) in nature. These locations were documented in varying conditions from “excellent, subsurface deposits demonstrated” to “disturbed” as a result of erosion.

The proposed project would be sponsored by a private communications company utilizing private funding. However, the project area is located on the Wichita Mountains Wildlife Refuge, which is owned and operated by the USFWS. Furthermore, as the proposed undertaking would involve construction of a cell tower, the project falls under the guidance of the FCC. As the USFWS and FCC are federal agencies and the Wichita Mountains Wildlife Refuge property constitutes federal lands, the project falls under the jurisdiction of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Archaeological Resources Protection Act (ARPA) of 1979. As the proposed project represents a publicly sponsored undertaking, the project sponsor is required to provide the applicable federal agencies, in this case the USFWS and the FCC, and the Oklahoma Historical Society (OHS) and the Oklahoma Archaeological Society (OAS), which collectively serve as the State Historic Preservation Office (SHPO) for the state of Oklahoma, with an opportunity to review and comment on the project’s potential to adversely affect historic properties listed on or considered eligible for listing on the NRHP.

On August 4, 2021, Horizon archeologist Jesse O. Dalton, under the direction of Principal Investigator, Jeffrey D. Owens, performed a cultural resources survey of the 1.4-hectare (3.5-acre) project area to locate any cultural resources that potentially would be impacted by the proposed undertaking. The survey was conducted under ARPA Permit No. 21670-21-084. Horizon’s archeologist traversed the project area on foot and thoroughly inspected the modern ground surface for aboriginal and historic-age cultural resources. In addition to pedestrian walkover and surface inspection, archeological survey guidelines typically call for shovel testing to evaluate the potential for subsurface archeological deposits. The state of Oklahoma has not established shovel testing standards for archeological surveys; as such, Horizon utilized the Texas State Minimum Archeological Survey Standards (TSMASS) established by the Texas Historical Commission (THC) and Council of Texas Archeologists (CTA) for use in Texas to provide a rough guideline for the minimum number of shovel tests to be excavated within the project area. For block-area projects, the TSMASS call for the excavation of a minimum of two shovel tests per 0.4 hectare (1.0 acre) for projects areas of 10.1 hectares (25.0 acres) or less in size. Following these guidelines, a minimum of one shovel test would be required within the less than 0.1-hectare (0.1-acre) cell tower lease area plus one shovel test at each of the three guy wire anchor locations, for a total of four shovel tests within the 1.0-hectare (2.4-acre) cell tower lease area. For linear projects, the TSMASS require the excavation of a minimum of one shovel test per 100.0 meters (328.1 feet) (i.e., 16 shovel tests per mile, or 10 shovel tests per kilometer) per 30.0-meter- (100.0-foot-) wide transect of right-of-way (or fraction thereof). As such, a minimum of five shovel tests would be required within the proposed 0.5-kilometer- (0.3-mile-) long by 9.1-meter- (30.0-foot-) wide access road. Thus, a total of nine shovel tests would be required for the project as a whole. Horizon excavated a total of 13 shovel tests within the project area, therefore exceeding the TSMASS requirements for a project area of this size. Shovel testing revealed that sediments in the project area consist of a typical A-B sequence, including a shallow veneer of cobbly brown loam overlying cobbly reddish-brown clay containing decomposing fragments of granitic bedrock at depths of 15.0 to 35.0 centimeters (5.9 to 13.8 inches) below surface. Horizon is confident that shovel testing was capable of fully penetrating Holocene-era sediments with the potential to contain subsurface archeological deposits. Survey efforts did not include utility or proposed fiber optic line installation routes

as they were unavailable at the time of the survey. However, these features are proposed to parallel previously disturbed and/or existing roadways to minimize impacts.

No cultural resources of historic or prehistoric age were observed on the modern ground surface or within any of the shovel tests excavated during the survey within the APE for direct effects. Furthermore, no historic properties listed on the NRHP are present within the 1.21-kilometer (0.75-mile) APE for indirect effects surrounding the project site.

Based on the results of the survey-level investigations documented in this report, no significant cultural resources would be affected by the proposed undertaking. In accordance with 36 Code of Federal Regulations (CFR) 800.4, Horizon has made a reasonable and good-faith effort to identify historic properties within the project area. No cultural resources were identified that meet the criteria for listing on the NRHP according to 36 CFR 60.4. Horizon recommends a finding of “no historic properties affected,” and no further work is recommended in connection with the proposed undertaking. However, human burials, both prehistoric and historic-age, are protected under The Burial Desecration Law (Oklahoma Statute Title 21, Chapter 47, Sections 1168.0 to 1168.6). In the event that any human remains or burial objects are inadvertently discovered at any point during construction, use, or ongoing maintenance in the project area, even in previously surveyed areas, all work should cease immediately and the USFWS, OAS, and OHS should be notified of the discovery.

### **Impacts on Affected Resource**

#### **Alternative A**

Under the No Action Alternative, the permit would not be issued, and the cell communications tower would not be built; thus, there would be no impacts associated with the proposed project.

#### **Alternative B**

Section 106 consultation has been conducted in accordance with the Advisory Council on Historic Preservation’s regulations (36 CFR Part 8000) and it has been determined that the proposed project will have no adverse effect on refuge properties that have previously been determined eligible for listing on the National Register of Historic Places.

Based on the results of the survey-level investigations documented in this report, no significant cultural resources would be affected by proposed action and the resulting construction and operation of the proposed project. In accordance with 36 CFR 800.4, Horizon has made a reasonable and good-faith effort to identify historic properties within the project area. No cultural resources were identified that meet the criteria for listing on the NRHP according to 36 CFR 60.4. Horizon recommends a finding of “no historic properties affected,” and no further work is recommended in connection with the proposed undertaking. However, human burials, both prehistoric and historic-age, are protected under The Burial Desecration Law (Oklahoma Statute Title 21, Chapter 47, Sections 1168.0 to 1168.6). In the event that any human remains or burial objects are inadvertently discovered at any point during construction, use, or ongoing maintenance in the project area, even in previously surveyed areas, all work should cease immediately and the Service, OAS, and OHS should be notified of the discovery.

## Socioeconomics

### **Affected Environment**

#### *Description of Affected Environment for the Affected Resource*

Wichita Mountains Wildlife Refuge sits just outside the Lawton, OK metro area in Comanche County, which has a population of approximately 122,000 people. The Lawton/Ft. Sill Chamber of Commerce prominently lists the refuge as a major local attraction.

Visitors coming from outside the local area do so specifically to experience some aspect of the refuge and its resources. Visitors that live within the local 50-mile radius of a refuge typically have different spending patterns than those that travel from longer distances. A 2010 study showed that 34 percent of surveyed visitors to the refuge indicated that they live within the local area (Sexton et al. 2011). Nonlocal visitors (66 percent) stayed in the local area, on average, for two days. Expenditures by these travelers support locally owned businesses, including hotels, coffee shops, restaurants, boutiques, and art galleries. Furthermore, the refuge currently manages multiple commercial permits, which allow photographers and climbing guides to conduct commercial operations within the refuge.

In 2016, employment in Comanche County totaled 65,926 jobs. The largest employment sector in Comanche County was government and government enterprises (45 percent), followed by retail trade (12 percent), accommodation and food services (9 percent), and health care and social assistance (7 percent). Construction accounted for 4.5 percent of total employment. Over the last several years, the average annual unemployment rate in the county has steadily declined from 6.2 percent in 2013 to 4 percent in 2017. During this same time, the state average annual unemployment rate also declined annually but remained higher than the county. In 2016, per capita personal income in Comanche County was \$39,001, which is less than per capita personal income in the state, which is estimated at \$42,692. (USACE 2019)

#### *Description of Environmental Trends and Planned Actions*

United States Army Garrison Fort Sill (Fort Sill / Garrison) is the third largest single-site employer in Oklahoma, contributing more than \$24 billion into Oklahoma's economy over the last 12 years, averaging out to roughly \$2 billion in outlays each year. Fort Sill encompasses approximately 150 square miles (93,829 acres) stretching 27 miles east to west and 6 miles north to south. The Garrison is growing and engaging in large construction projects regularly. The western half of the north boundary is bounded by the refuge.

### **Impacts on Affected Resource**

#### **Alternative A**

No impacts to socioeconomics are expected from continuation of current management.

#### **Alternative B**

Under Alternative B, improved infrastructure and public use facilities would benefit socioeconomics for the entire region. The refuge would have the ability to meet the needs of the visiting public as well as everyday management activities and refuge operations with improved cellular and radio communications. Construction activities could also have beneficial economic impacts in the local area if supplies were purchased and equipment was rented in neighboring communities.

With limited types of outdoor recreation available to the public in this area, increased capacity to facilitate visitation would continue to support the economy. According to the Service's 2013 *Banking on Nature* report, recreational visitation to the refuge, which was operating on a budget of \$3.9 million, produced \$174 million in economic effects while supporting some 1,050 jobs. That is about \$44 generated for every \$1 in budget expenditures.

## Environmental Justice

### **Affected Environment**

#### *Description of Affected Environment for the Affected Resource*

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

In the 2014-2018 period, the income category in the Comanche County, OK with the most households was \$50,000 to \$74,999 (19.4% of households) and 15.6% of households have an income of \$10,000 to \$24,999 (U.S. Department of Commerce 2019). The income category with the fewest households was \$200,000 or more (2.8% of households). In Comanche County, OK 11.5% families are in poverty compared to U.S. average of 10.1% (U.S. Department of Commerce 2019).

#### **Impacts on Affected Resource**

None of the alternatives described in this EA will disproportionately place any adverse environmental, economic, social, or health impacts on minority and low-income populations. Implementation of the proposed action is anticipated to benefit the environment and people in the surrounding communities.

#### **Monitoring**

The Service will consult with tribes and the Oklahoma State Historic Preservation Office before issuance of a ROW way permit to allow construction of new infrastructure occurs. Archaeological monitoring will occur throughout the project and inadvertent discovery documents established during consultation, if required, will be followed.

Biological monitoring will occur throughout the life of the project. The refuge will use an adaptive management approach to ensure construction activities have no adverse impacts on wildlife populations.

#### **Summary of Analysis**

### **Alternative A – Current Management – No Action Alternative**

As described above, the Service would not issue the ROW permit which would prohibit the project from being implemented. This would result in continued inadequate cellular coverage within the refuge vicinity, limited radio coverage for staff and partner agencies, and limited bandwidth for emergency response within and around the refuge area.

## **Alternative B – Consolidate and Modernize Facilities – Proposed Action Alternative**

The proposed action would meet the purpose and need of the Service to provide infrastructure and facilities sufficient to manage habitat requirements and visitor service activities on the Refuge. This project would improve overall efficiency and procedures of everyday refuge operations and emergency response communications and improve the visitor experience by enhancing communications.

Construction activities under the proposed action would have minimal impacts on some natural resources including wildlife, air quality, soils, and vegetation. Mitigation and best management practices will minimize impacts on these resources. There will be beneficial impacts on administration, public use, and recreation under the proposed action by enhancing cellular and radio communications in the area.

The proposed action is consistent in meeting the purpose and needs of the Service because this project would improve radio and cellular communications as well as provide expanded bandwidth for emergency response operations sufficient to meeting the needs of various visitor activities while reducing negative impacts associated with current emergency response activities. Additionally, fiber optic will improve connectivity at the refuge administrative offices and Visitor Center which supports refuge operations and the Service's ability to support refuge visitors.

### **List of Sources, Agencies and Persons Consulted**

#### **List of Preparers**

Rainwater, Stephanie K. – Horizon Environmental Services

Amber Zimmerman, Deputy Refuge Manager

#### **Agencies Consulted**

##### **Tribal Agencies:**

1. Apache Tribe of Oklahoma
2. Caddo Nation
3. Cheyenne and Arapaho Tribes
4. Comanche Nation
5. Delaware Nation
6. Fort Sill Apache Tribe
7. Kiowa Tribe
8. Osage Nation
9. Wichita and Affiliated Tribes

Oklahoma Natural Heritage Inventory

Oklahoma State Historic Preservation Office

Oklahoma Archaeological Survey

## Public Outreach

To solicit public review and comment, the refuge has sent notices to area newspapers and media that have wide local distributions, including KSWO, and the Elgin Chronicle and Lawton Constitution newspapers, posted notices on social media, and posted on the refuge website at [https://www.fws.gov/refuge/wichita\\_mountains/](https://www.fws.gov/refuge/wichita_mountains/).

This Draft Environmental Assessment will be made available for public comment from 10/28/2022 through 11/28/2022. Comments should be mailed to Wichita Mountains Wildlife Refuge, 32 Refuge Headquarters, Indianola, OK 73552, or sent via email to [wmr\\_publiccomment@fws.gov](mailto:wmr_publiccomment@fws.gov). In order to be considered, all comments must be received by 5:00 PM November 28, 2022.

## Determination

*This section will be filled out upon completion of the public comment period and at the time of finalization of the Environmental Assessment.*

- The Service's action will not result in a significant impact on the quality of the human environment. See the attached "**Finding of No Significant Impact**".
- The Service's action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.

## Signatures

Submitted By:

Refuge Manager Signature:

Date:

Concurrence:

Refuge Supervisor Signature:

Date:

Approved:

Regional Chief, National Wildlife Refuge System Signature:

Date:

## References

Albert, L.E., and D.G. Wyckoff. 1984. Oklahoma Environments: Past and Present. In Prehistory of Oklahoma, edited by R.E. Bell, pp. 1-43. Academic Press, Ontario.

Cornell Lab of Ornithology (Cornell). 2019. All About Birds <[https://www.allaboutbirds.org/guide/Lark\\_Bunting/lifehistory](https://www.allaboutbirds.org/guide/Lark_Bunting/lifehistory)>. Accessed August 9, 2021.

Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey. <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed August 6, 2021.

Natural Resources Conservation Service (NRCS). 1967. Soil Survey of Comanche County. US Department of Agriculture Soil Conservation Service in Cooperation with Oklahoma Agricultural Experiment Station.

Oklahoma Department of Wildlife Conservation (ODWC). 2021a. Red Knot <<https://www.wildlifedepartment.com/wildlife/field-guide/birds/rufa-red-knot>>. Accessed August 9, 2021.

Oklahoma Department of Wildlife Conservation (ODWC). 2021b. Whooping Crane <<https://www.wildlifedepartment.com/wildlife/field-guide/birds/whooping-crane>>. Accessed August 9, 2021.

Oklahoma Natural Heritage Inventory (ONHI). 2021. OBS Ref. 2021-432-BUS-HOR. July 16, 2021.

U.S. Department of Commerce. 2019. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., as reported in Headwaters Economics' U.S. Fish and Wildlife Service Socioeconomic Profile. Retrieved February 5, 2021 from <https://headwaterseconomics.org/tools/usfws-profiles/>

U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation. <<https://ipac.ecosphere.fws.gov/>>. Accessed March 2, 2022.

U.S. Fish and Wildlife Service. 2012. Wichita Mountains Wildlife Refuge Comprehensive Conservation Plan.

U.S. Fish and Wildlife Service (USFWS). 2011. Piping Plover <[https://www.fws.gov/southwest/es/oklahoma/Documents/TE\\_Species/Species%20Profiles/Piping%20Plover.pdf](https://www.fws.gov/southwest/es/oklahoma/Documents/TE_Species/Species%20Profiles/Piping%20Plover.pdf)>. Accessed August 9, 2021.

## Appendix A - OTHER APPLICABLE STATUTES, EXECUTIVE ORDERS, AND REGULATIONS

### **Cultural Resources**

American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 - 1996a; 43 CFR Part 7

Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3

Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810

Paleontological Resources Protection Act, 16 U.S.C. 470aaa-470aaa-11

Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10

Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)

Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)

The proposed action does not impact any documented paleontological or archaeological sites. The Service has coordinated with the Oklahoma Historical Society State Historic Preservation Office and Oklahoma Archeological Survey, and consultation will be completed prior to demolishing any buildings that meet criteria un the National Historic Preservation Act. Consultation and implemented required conditions will assure compliance with Cultural resource laws.

The refuge has consulted with appropriate Native American tribes/groups to identify any concerns they may have pertaining to the project.

### **Fish and Wildlife**

Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, 450

Fish and Wildlife Act of 1956, 16 U.S.C. 742a-m

Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904

Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21

Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)



The proposed action is consistent with Executive Order 13186 because the Environmental Assessment for Infrastructure Improvement at Wichita Mountains WR evaluates the effects of agency actions on migratory birds.

### **Natural Resources**

Clean Air Act, as amended, 42 U.S.C. 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23

Wilderness Act, 16 U.S.C. 1131 et seq.

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

Executive Order 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999)

The Service has evaluated the suitability of the Wichita Mountains WR for wilderness designation and found that the Wichita Mountains Wilderness Area, consisting of two units totaling 8,570 acres, meets the criteria.

The Service has evaluated the eligibility of streams on Wichita Mountains WR for wild and scenic river designation and concluded no streams meet the basic criteria for inclusion into the National Wild and Scenic Rivers System. The proposed action has no negative effects on designated wilderness.

The proposed action would have negligible effects on air quality.

The proposed action is consistent with Executive Order 13112 because stipulations in permits would be designed to prevent the introduction of invasive species.

Appendix B – Maps

Maps of refuge, vicinity of map project area, location of project area on USFS topographic map, and location of project area on an aerial photograph.

Figure 1: Vicinity Map of Project Area



Figure 2: Location of Project Area on USGS Topographic Map

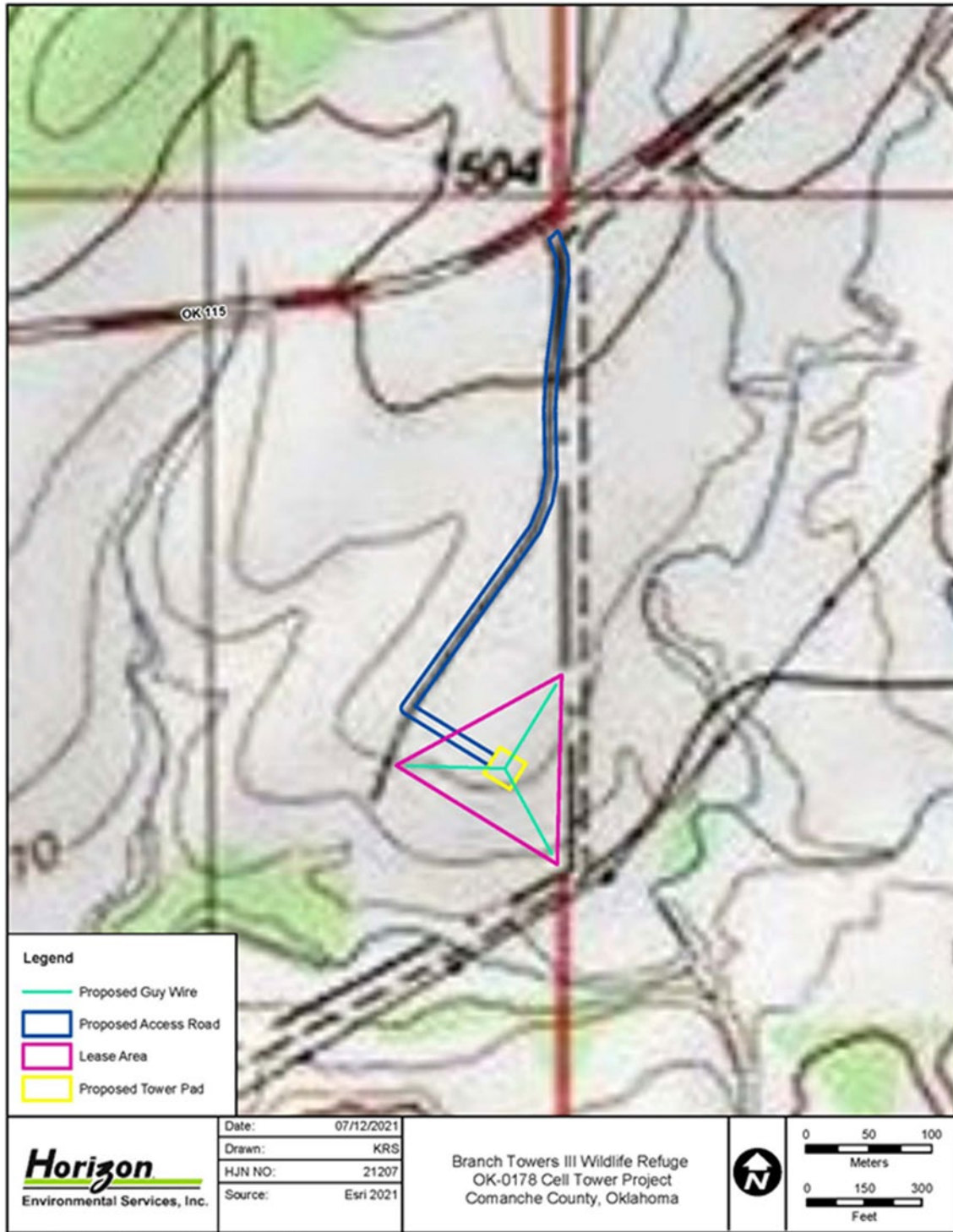
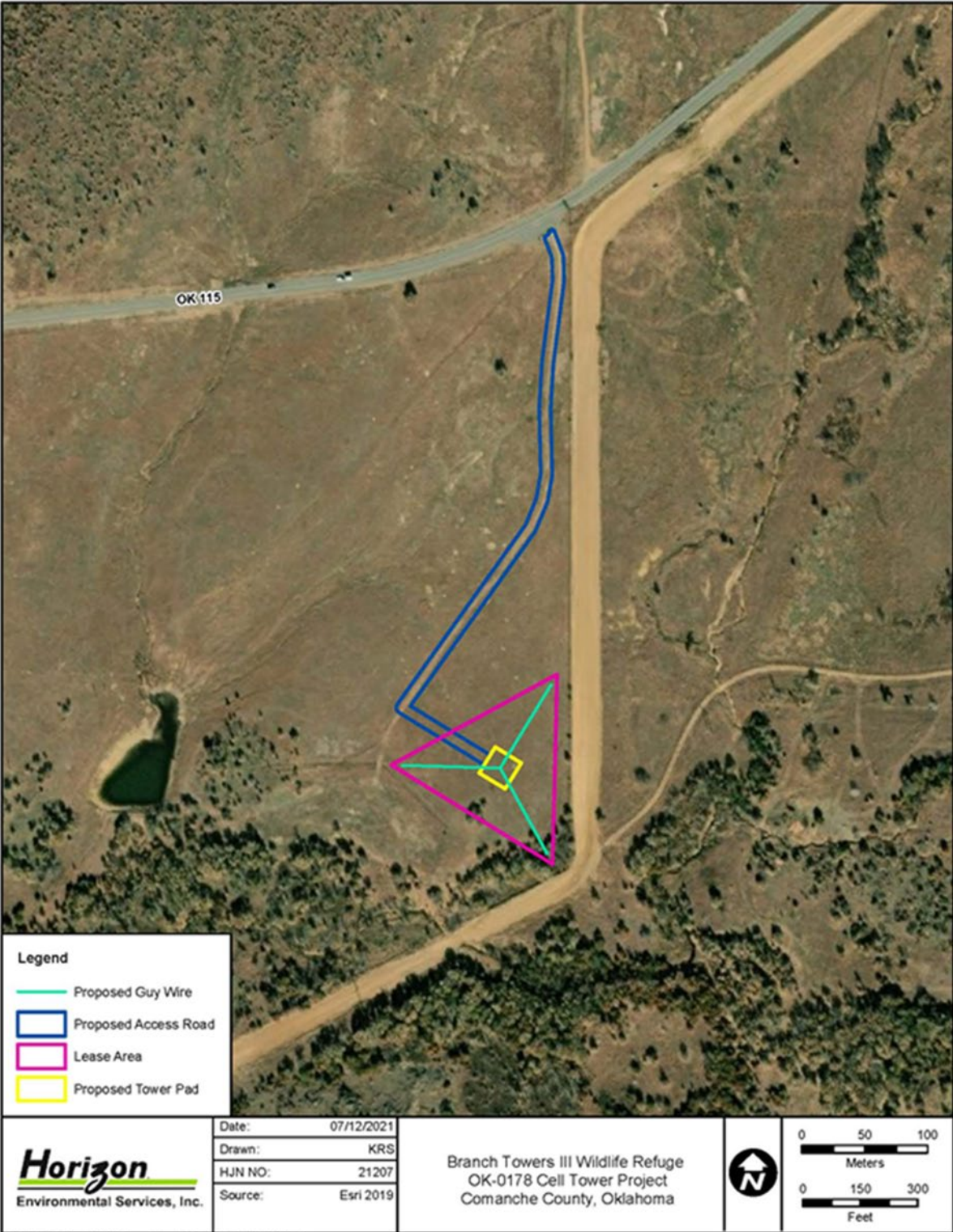


Figure 3: Location of Project Area on Aerial Photograph



21207--Wichita\_Refuge\_OK-0178\_Cell\_Tower\graphics\21207-00\AR\_03A\_Aerial