

# **Draft Environmental Assessment Tactical Communication Network System Agua Dulce Mountains Cabeza Prieta National Wildlife Refuge**

March 2021

**U.S. Customs and Border Protection**



**U.S. Customs and  
Border Protection**

**DEPARTMENT OF HOMELAND SECURITY  
U.S. CUSTOMS AND BORDER PROTECTION  
U.S. BORDER PATROL  
PROGRAM MANAGEMENT OFFICE DIRECTORATE**

**DRAFT**

**DRAFT Environmental Assessment  
Tactical Communication Network System  
Agua Dulce Mountains  
Cabeza Prieta National Wildlife Refuge**

**DEPARTMENT OF HOMELAND SECURITY  
U.S. CUSTOMS AND BORDER PROTECTION  
U.S. BORDER PATROL  
PROGRAM MANAGEMENT OFFICE DIRECTORATE**

**March 2021**

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Lead Agency: U.S. Department of Homeland Security  
U.S. Customs and Border Protection  
U.S. Border Patrol  
Program Management Office Directorate

Point of Contact: Paul Enriquez  
Border Patrol HQ  
Program Management Office Directorate  
1300 Pennsylvania Ave., N.W.  
6.5E, Mail Stop 1039  
Washington, DC 20004

Date: February 8, 2021

Subject: Notice of Availability of the Draft Environmental Assessment for the Deployment Operation and Maintenance of Tactical Communication Network System, Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge

U.S. Customs and Border Protection (CBP) announces the availability of the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Tactical Communications Network System, Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Ajo, Arizona. CBP has prepared a Draft EA and FONSI to identify and assess the potential environmental and socioeconomic impacts associated with the deployment, operation, and maintenance of the Tactical Communications Network System (TCNS) at a location in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona.

CBP invites comments on the Draft EA and FONSI during the 30-day comment period beginning on March 1, 2021. The Draft Environmental Assessment can be accessed at the following website: <https://www.cbp.gov/about/environmental-management-sustainability/documents/docs-review> Comments may be submitted using one of the following methods:

1. By email to [TucsonComments@cbp.dhs.gov](mailto:TucsonComments@cbp.dhs.gov) subject line should read Draft EA TCNS Agua Dulce Mountains
2. By mail to Paul Enriquez, Director, Acquisitions, Real Estate and Environmental, Office, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229

To ensure consideration, comments must be received by March 31, 2021.

Recent changes to the Council on Environmental Quality (CEQ) regulations implementing the NEPA (40 Code of Federal Regulations [C.F.R.] §§ 1500–1508) became effective on September 14, 2020. 85 Fed. R. 43304-76 (July 16, 2020). As stated in 40 C.F.R. § 1506.13, the new regulatory changes apply to any NEPA process begun after September 14, 2020. This EA substantively commenced prior to that date, as shown by the scoping letters sent to stakeholders on May 26, 2020. Therefore, this EA conforms to the CEQ NEPA implementing regulations that were in place prior to September 14, 2020.

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**PROJECT HISTORY:** Customs and Border Protection (CBP) is responsible for securing the borders of the United States while facilitating the efficient movement of legitimate trade and travel. CBP serves as the front line in defending the United States against terrorists and instruments of terror and protects the United States' economic security by regulating and facilitating the lawful movement of goods and people across the United States' borders. As CBP officers and agents often work in remote areas where commercial communications do not exist, the Tactical Communication Network System (TCNS) is critical to mission execution and vital to agent safety.

With the addition of approximately 42 miles of new Border Wall and technology within the Ajo Station AOR, CBP will need to operate on the International Boundary Line where there are no radio communications. This area of approximately 187 square miles is very remote and rugged. Radio communications are extremely limited to non-existent south of the Agua Dulce Mountains. The need for the border wall and complementing communications assets is described in Executive Order (EO) 13767: Border Security and Immigration Enforcement Improvements. Section 4 of EO 13767 directs the Secretary of Homeland Security to "take steps to obtain complete operational control, as determined by the Secretary, of the southern border". Executive Order 13767 defines "Operational Control" to mean "the prevention of all unlawful entries into the United States, including entries by terrorists, other unlawful aliens, instruments of terrorism, narcotics, and other contraband".

**PROJECT LOCATION:** The affected area for this Environmental Assessment (EA) covers a single location (Agua Dulce Mountains) in southern Arizona, located within Pima County.

**PURPOSE AND NEED:** The purpose of the Proposed Action is to improve tactical communications south of the Agua Dulce Mountains for Federal agents working for CBP. The Proposed Action would significantly improve safety in the daily operations of CBP agents. The project area encompassing portions of the CPNWR is deficient in communications infrastructure for USBP activities, even though the USBP Ajo Station has repeaters for field operations communications. In their present locations, the radio repeaters do not provide sufficient radio coverage for reliable communications south of the Agua Dulce Mountains. This presents serious agent safety issues, as agents are not able to communicate between vehicles, handheld radios, and the USBP Ajo Station Headquarters. The Proposed Action is limited to the deployment of one TCNS shelter.

The need for the Proposed Action is to provide the following:

- Adequate communication coverage in remote locations to reduce, or potentially eliminate, communication coverage gaps

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- Enhanced safety of CBP agents through improved communication coverage and technology
- An opportunity for future expansion of communication services as necessary
- A more safe, effective, and efficient work environment for CBP agents

**ALTERNATIVES:** Two alternatives were considered in the full analyses of the EA: the Proposed Action and the No Action Alternative, described below.

**Proposed Action Alternative:** The Proposed Action consists of the installation of a solar-powered Tactical Communication Network System (TCNS) in the Agua Dulce Mountains, CPNWR. TCNS would consist of a 3-foot x 7-foot shelter, communications equipment (Codan Repeater), communication antennae, and two solar panels. The proposed action includes the installation of communications equipment where no previous intrusion has occurred. The TCNS is minimal in nature, the equipment would be painted to blend with the background and minimize glare. No lights would be attached to the antennas or shelter.

**No Action Alternative:** The No Action Alternative is to continue to utilize current communications capabilities. The alternative would not include the placement of a TCNS in the Agua Dulce Mountains or any peak in CPNWR. This would not improve the communications capability south of the Agua Dulce Mountains or reduce the risk to CBP agents working along the international border in this area of the CPNWR.

**ENVIRONMENTAL CONSEQUENCES:** The Proposed Action would have a direct permanent impact on 21 square feet of previously undisturbed Sonoran Desert. The Proposed Action would also temporarily disturb approximately 600 square feet for the assembly area. One thousand square feet of disturbed area will be temporarily impacted for the equipment staging area. Adverse and beneficial indirect impacts would also occur throughout the project area as a result of the Proposed Action.

The Proposed Action would change the land use from undeveloped Sonoran Desert to CBP communications infrastructure.

The TCNS location within the CPNWR is within a designated wilderness area and would require a Minimum Requirements Analysis (MRA) from the refuge manager at CPNWR. The TCNS equipment would not be visible to most visitors due to its low height profile and mountaintop locations; however, the proposed equipment is man-made and would detract from the natural values of designated wilderness. The proposed installation would meet the minimum requirements for administration of the wilderness areas and therefore would be allowed in the area without adverse effect according to USFWS Wilderness Stewardship Policy. The proposed installation would have no adverse impact on the wilderness character on the Agua Dulce Mountains. The Proposed Action would have an indirect beneficial impact on the remaining designated wilderness as a result of enhanced communication capabilities, improved interdiction capabilities, increased

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deterrence of cross-border violators (CBV), and a reduced enforcement zone for required interdiction activities. The decrease in cross border violations and a reduced enforcement footprint would reduce adverse impacts on the designated wilderness area.

The proposed location's site habitat parameters, such as vegetation community, soils, elevation and habitat features, such as caves and crevices, are not suitable for listed threatened or endangered wildlife species with the exception of the Sonoran Pronghorn (*Antilocapra americana sonoriensis*) and Graham's nipple cactus. The relatively small area of impact and the infrequency of helicopter use would have a negligible impact on the use of the area by the Sonoran Pronghorn, if it were present. If present, the Graham's nipple cactus could be avoided. CPNWR staff recommends a preconstruction site walk by a qualified biologist prior to equipment deployment to determine the presence of Graham's nipple cactus (*Mammillaria grahamii*).

Archeological resources have not been mapped on the Agua Dulce Mountains. Review of databases and conversations with CPNWR staff indicate no known archeological or historical properties to be present on the Agua Dulce Mountains. However, if present, helicopter landings, foot traffic and the transporting of equipment during the initial installation would have a direct, long-term, minor impact to areas where archeological materials may be present.

Mountaintop sites are traditionally sacred places to Native Americans. In accordance with applicable Federal laws and CBP policy, consultation with Tohono O'odham Nation was conducted. Lorraine Eiler, a Hia Ced O'odham elder indicated that the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. The Tohono O'odham Nation Tribal Historic Preservation Officer (THPO) had no objections to the placing of the TCNS in the Agua Dulce Mountains. The Tohono O'odham Nation THPO requested that a Cultural Specialist with the Tohono O'odham Nation be present at the TCNS site location during installation.

No historic properties, structures, districts or sacred sites are located at or near the proposed site.

No utilities would be impacted as a result of the Proposed Action, although long-term benefits to socioeconomics could occur.

No significant adverse effects on the natural or human environment, as defined in 40 Code of Federal Regulations (CFR) Section 1508.27 of the Council on Environmental Quality's Regulations for Implementing National Environmental Policy Act, are expected from implementation of any of the action alternatives.

**MITIGATION:** Mitigation measures are identified for each resource category that could be potentially affected. Many of these measures have been incorporated as standard operating procedures by CBP in similar past projects. Mitigation measures, including standard best

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management practices (BMP), are also identified in the EA in Section 5. Aside from stated BMPs, there are no mitigation commitments associated with the Proposed Action.

Project Planning/Design

- CBP will site, design, and install equipment, to avoid or minimize habitat loss within or adjacent to the footprint.
- CBP will ensure that all construction will follow DHS *Directive 025-01* for Sustainable Practices for Environmental, Energy, and Transportation Management.
- CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for construction and maintenance.

General Construction Activities

- CBP will clearly demarcate project construction area perimeters with a representative from the land management agency. No disturbance outside that perimeter will be authorized.
- CBP will minimize the number of trips to the TCNS location per day during construction to reduce the likelihood of disturbing or injuring animals in the area or disturbing their habitat.
- Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.
- CBP will notify USFWS and CPNWR two weeks before any project construction and maintenance activities begin and within one week after project construction and maintenance activities are completed.

Soils

- Areas with highly erodible soils will be given special consideration when designing the proposed project to ensure incorporation of various erosion control techniques, where possible, to decrease erosion. Site rehabilitation will include revegetating or the



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distribution of organic and geological materials (i.e., boulders and rocks) over the disturbed area to reduce erosion while allowing the area to naturally vegetate. Additionally, erosion control measures and appropriate BMPs will be implemented before, during, and after construction activities as appropriate.

- CBP will place drip pans under parked equipment and containment zones when refueling vehicles or equipment.

Vegetation

- CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. CBP will limit the removal of trees, cacti, and brush to the smallest amount needed to meet the objectives of the project. If vegetation must be removed outside the permanent project footprint, allow natural regeneration of native plants by cutting vegetation with hand tools, mowing, trimming, or using other removal methods that allow root systems to remain intact.
- CBP will document any establishment of non-native plants and will implement appropriate control measures.
- CBP will remove invasive plants that appear on the TCNS site. Removal will be done in ways that eliminate the entire plant and remove all plant parts to a disposal area. Herbicides not toxic to listed species in the area can be used for non-native vegetation control.
- Application of herbicides will follow Federal guidelines and be in accordance with label directions. Removal will be done in a manner that does not affect protected or sensitive species. Training to identify non-native invasive plants will be provided for CBP personnel or contractors as necessary.
- CBP will avoid the spread of non-native plants by not using natural materials (e.g., straw) for on-site erosion control. If natural materials must be used, the natural material would be certified weed and weed-seed free. Herbicides not toxic to listed species that may be in the area can be used for non-native vegetation control. Application of herbicides will follow Federal guidelines and can be used in accordance with label directions.

Wildlife Resources

- The Migratory Bird Treaty Act (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the

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USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting seasons (February 1 through September 15), surveys will be performed to identify active nests. All construction activities will be scheduled outside nesting seasons to the greatest extent practicable.

- Antennas and other pole-like structures will be designed and constructed to discourage roosting and nesting by birds, particularly ravens or other raptors that may use the poles for hunting perches.
- If rodent populations on the perimeter of the facility are to be controlled, CBP will not use rodenticides.
- CBP will avoid placing riprap around TCNS equipment.
- CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

Protected Species

- CBP will minimize impacts on listed species and their habitats by using areas already disturbed by past activities, or those that will be used later in the construction period, for staging, parking, laydown, and equipment storage. If site disturbance is unavoidable, minimize the area of disturbance by scheduling deliveries of materials and equipment to only those items needed for ongoing project implementation.
- CBP will minimize impacts on listed species and their habitats by limiting grading or topsoil removal to areas where this activity is absolutely necessary for construction, staging, or maintenance activities.
- CBP will avoid restricting water access by identifying and not creating barriers to natural water sources available to listed species.

Sonoran Pronghorn

- CBP will provide for an on-site biological monitor to be present during work activities for all construction activities.
- CBP will minimize to the greatest extent possible the number of TCNS sites in Sonoran pronghorn habitat, particularly in movement corridors and areas important to Sonoran

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pronghorn during the fawning season (March 15 to July 31) and to Desert Bighorn Sheep during the breeding season (September – November).

- CBP will minimize the number of construction and maintenance trips to the TCNS location, particularly those in important Sonoran pronghorn and Desert Bighorn Sheep areas.

Water Resources

- Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work shall cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within secondary containment areas consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of drainages.
- CBP will avoid contaminating natural aquatic and wetland systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.
- CBP will avoid impacts on groundwater by obtaining treated water from outside the immediate area for construction use.
- CBP storage tanks containing untreated water will be of a size that if a rainfall event were to occur, the tank (assuming open), will not be overtopped and cause a release of water into the adjacent drainages. Water storage on the project area will be in on-ground containers located on upland areas not in washes.

Cultural Resources

- CBP will demarcate the site boundaries of all previously recorded sites to ensure that they are avoided.
- Should any archeological artifacts be found during construction, notify the appropriate land management archeologist immediately. All work will cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

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Air Quality

- Mitigation measures will be incorporated to ensure that fugitive dust and other air quality constituent emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1). Standard construction BMPs, such as routine watering of the construction site, will be used to control fugitive dust and thereby assist in limiting potential PM-10 excursions during the construction phase of the proposed project. Additionally, all construction equipment and vehicles will be required to be maintained in good operating condition to minimize exhaust emissions.

Noise

- During the construction phase, short-term noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities would be restricted to daylight hours to the greatest extent practicable. Construction equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level.

Hazardous Materials

- BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock, etc.) will be used to absorb and contain the spill.
- CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

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- Minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.
  
- All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

**FINDING:** Based upon the analyses of the EA and the BMPs and mitigation measures to be incorporated as part of the Proposed Action, it has been concluded that the Proposed Action will not result in any significant effects on the environment. Therefore, no further environmental impact analysis is warranted.

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Paul Enriquez  
Program Management Office Directorate  
U.S. Customs and Border Protection

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Date

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Eric Eldridge  
Director  
Facilities Management and Engineering Division  
U.S. Customs and Border Protection

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Date

# **Executive Summary**

## **Introduction**

This Draft Environmental Assessment (Draft EA) analyzes the potential environmental consequences of deploying and operating a Tactical Communications Network System (TCNS) radio repeater within the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge (CPNWR) within U.S. Border Patrol (USBP) Ajo Station's Area of Responsibility (AOR).

Customs and Border Protection (CBP) is responsible for securing the borders of the United States while facilitating the efficient movement of legitimate trade and travel. CBP serves as the front line in defending the United States against terrorists and instruments of terror and protects the United States' economic security by regulating and facilitating the lawful movement of goods and people across the United States' borders.

As CBP officers and agents often work in remote areas where commercial communications do not exist, the TCNS is critical to mission execution and vital to agent safety.

With the addition of approximately 42 miles of new Border Wall and technology within the Ajo Station AOR, CBP operations will need to forward-deploy on the International Boundary Line where there is no radio communications. This area of approximately 187 square miles is very remote and rugged. Radio communications are extremely limited to non-existent south of the Agua Dulce Mountains. The need for the border wall and complementing communications assets is described in Executive Order (EO) 13767: Border Security and Immigration Enforcement Improvements. Section 4 of EO 13767 directs the Secretary of Homeland Security to "take steps to obtain complete operational control, as determined by the Secretary, of the southern border". Executive Order 13767 defines "Operational Control" to mean "the prevention of all unlawful entries into the United States, including entries by terrorists, other unlawful aliens, instruments of terrorism, narcotics, and other contraband".

## **Purpose and Need**

The purpose of the Proposed Action is to improve tactical communications south of the Agua Dulce Mountains for Federal agents working for CBP. The Proposed Action would significantly improve safety in the daily operations of CBP agents. The project area encompassing portions of the CPNWR is deficient in communications infrastructure for USBP activities, even though the USBP Ajo Station has repeaters for field operations communications. In their present locations, the radio repeaters do not provide sufficient radio coverage for reliable communications south of the Agua Dulce Mountains. This presents serious agent safety issues, as agents are not able to communicate between vehicles, handheld radios, and the USBP Ajo Station Headquarters.

The need for the Proposed Action is to provide the following:

- Adequate communication coverage in remote locations to reduce, or potentially eliminate, communication coverage gaps
- Enhanced safety of CBP agents through improved communication coverage and technology
- An opportunity for future expansion of communication services as necessary
- A more safe, effective, and efficient work environment for CBP agents

### **Proposed Action and Alternatives Considered**

The Proposed Action consists of the installation of a solar-powered Tactical Communication Network System in the Agua Dulce Mountains, CPNWR. TCNS would consist of a 3-foot x 7-foot) shelter, communications equipment (Codan Repeater), communication antennae, and two solar panels. The Proposed Action includes the installation of communications equipment where no previous intrusion has occurred. The TCNS is minimal in nature, the equipment would be painted to blend with the background and minimize glare. No lights would be attached to the antennas or shelter. The Proposed Action is limited to the deployment of one TCNS shelter.

### **No Action Alternative**

The No Action Alternative is to continue to utilize current communications capabilities. The alternative would not include the placement of a TCNS in the Agua Dulce Mountains or any peak in CPNWR or surrounding properties. This would not improve the communications capability south of the Agua Dulce Mountains or reduce the risk to CBP agents working along the international border in this area of the CPNWR.

### **Other Alternatives Considered**

CBP evaluated other alternatives to determine whether they could provide CBP with improved communications capability south of the Agua Dulce Mountains. None of the other alternatives were able to meet the need and objectives of the Proposed Action. Since only TCNS has this capability, it is the only alternative examined in detail in this Draft EA, along with the No Action Alternative.

### **Environmental Consequences of the Proposed Action and Alternatives**

The conclusion of the analysis in this Draft EA is that the Proposed Action will result in no significant impacts to the human environment, as defined in the National Environmental Policy Act (NEPA).

The Draft EA assessed the potential for environmental impacts to the following resources:

- Air Resources
- Biological Resources
- Cultural Resources
- Environmental Justice

- Ethnographic Resources
- Fisheries
- Floodplains
- Hazardous Materials
- Historic and Archeological Resources
- Human Health and Safety
- Infrastructure and Utilities
- Minerals and Energy Development
- Prime and Unique Farmland
- Recreational Opportunities and Experiences
- Socioeconomics
- Soils
- Visual Resources
- Water Resources and Wetlands
- Wilderness Resources
- Wild and Scenic Rivers

A detailed discussion of these resource categories is provided in Chapter 1 of the Draft EA, along with explanations of why impacts to these resources were or were not carried forward for analysis.

### **Cumulative Impacts**

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. With respect to the Proposed Action, the only categories with a potential for cumulative impacts would be soil resources. The cumulative effect of foot traffic and helicopter landing would continue to impact the site over the life of the installation.

In CPNWR, the Proposed Action would improve CBP's deterrence of Cross Border Violator (CBV) activities and reduce CBV impacts (i.e. unauthorized trails and roads) on soil resources in multiple locations within CPNWR.

### **Findings and Conclusions**

The evaluation of the Proposed Action demonstrates that there will be no significant, adverse effects to the human environment. Therefore, no further environmental impact analysis is warranted.



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# 1 Introduction

The Department of Homeland Security's (DHS) U.S. Customs and Border Protection (CBP) is preparing this Draft Environmental Assessment (Draft EA) to document the analysis of the proposed deployment of a Tactical Communications Network System (TCNS) within the Agua Dulce Mountains within U.S. Border Patrol (USBP) Ajo Station's Area of Responsibility (AOR).

CBP is responsible for securing the borders of the United States while facilitating the efficient movement of legitimate trade and travel. CBP serves as the front line in defending the United States against terrorists and instruments of terror and protects the United States' economic security by regulating and facilitating the lawful movement of goods and people across the United States' borders.

As CBP officers and agents often work in remote areas where commercial communications do not exist, the TCNS is critical to mission execution and vital to officer safety.

With the addition of approximately 42 miles of new Border Wall and technology within the Ajo Station AOR, CBP will need to operate on the International Boundary Line where there is no radio communications. This area of approximately 187 square miles is very remote and rugged. Radio communications are extremely limited to non-existent south of the Agua Dulce Mountains. The need for the border wall and complementing communications assets is found in Executive Order 13767: Border Security and Immigration Enforcement Improvements. Section 4 of the Executive Order directs the Secretary of Homeland Security to "take steps to obtain complete operational control, as determined by the Secretary, of the southern border". The Executive Order defines "Operational Control" to mean "the prevention of all unlawful entries into the United States, including entries by terrorists, other unlawful aliens, instruments of terrorism, narcotics, and other contraband" (President, 2017).

## 1.1 Project Location

The project is located in USBP Tucson Sector's Ajo Station's AOR within Pima County, Arizona. The proposed TCNS site is located on the South Eastern Corner of the Cabeza Prieta National Wildlife Refuge within the Agua Dulce Mountains (Figures 1-3).

## 1.2 Purpose and Need

CBP proposes the installation, operation, and maintenance of communications equipment (Tactical Communication Network System) in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge (CPNWR), Pima County, Arizona.

The purpose of the proposed action is to improve Tactical Communications south of the Agua Dulce Mountains for Federal agents working for CBP. The proposed action would significantly improve safety in the daily operations of CBP agents. The project area encompassing portions of the CPNWR is deficient in communications infrastructure for USBP activities, even though the

USBP Ajo Station has repeaters for field operations communications. In the present locations, radio repeaters do not provide sufficient radio coverage for reliable communications south of the Agua Dulce Mountains. This presents serious agent safety issues, as agents are not able to communicate between vehicles, handheld radios, and the USBP Ajo Station Headquarters. The Proposed Action is limited to the deployment of one TCNS shelter.

The need for the proposed action is to provide the following:

- Adequate communication coverage in remote locations to reduce, or potentially eliminate, communication coverage gaps
- Enhanced safety of CBP agents through improved communication coverage and technology
- An opportunity for future expansion of communication services as necessary
- A more safe, effective, and efficient work environment for CBP agents

### **1.3 Scope of the Analysis**

The scope of this National Environmental Policy Act (NEPA) analysis includes the assessment of direct, indirect, and cumulative effects on the natural, social, economic and physical environments resulting from the installation, operation, and maintenance of a Tactical Communications Network System in the Agua Dulce Mountains, Tucson Sector, Ajo Station Area of Operations. This analysis does not include an assessment of operations conducted in the field by Federal agents. These operations would continue regardless of the modernization of communication equipment. The information provided in this EA will assist CBP in determining whether the proposed action would have a significant impact(s) on the environment and whether it would achieve the objectives of its purpose and need. The EA also provides the status of compliance with applicable environmental statutes, such as the Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] § 1531 et seq.), as amended, and the National Historic Preservation Act (NHPA) of 1966 (54 U.S.C. § 300101 et seq.), as amended. CBP developed this EA in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. §§ 4321-4347); regulations issued by the Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508); DHS Instruction 023-01-001-01, Revision 01, Implementation of the NEPA; and other pertinent environmental statutes, regulations, and compliance requirements.

The CPNWR is one of 510 refuges governed by the National Wildlife Refuge System Administration Act of 1966, as amended (Refuge Act; P.L. 106-580), and National Wildlife Refuge System Improvement Act (P.L. 105-57). The Act provides for the conservation, protection, and propagation of native species of fish and wildlife, including migratory birds that are threatened with extinction and their habitats, for the benefit of present and future generations of residents of the United States.

The Wilderness Act of 1964 (P.L. 88-577 [Wilderness Act]) allowed for the establishment of a National Wilderness Preservation System and allows for the establishment of wilderness on federally owned lands designated by Congress. Areas designated as wilderness are to be administered in such a manner as to leave the lands undisturbed for future use and enjoyment by the public as wilderness and to provide protection of these areas for the preservation of their wilderness character. As defined by the Wilderness Act, wilderness should provide for the

opportunities to experience solitude, unconfined recreation, and naturalness. To maintain the wilderness characteristics of designated wilderness areas, certain activities are prohibited, including commercial enterprise and permanent roads, and, except as necessary to meet minimum requirements for the administration of the area for the purpose of the Wilderness Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, nor use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation (16 U.S.C. 1131-1136).

The Cabeza Prieta Wilderness was created within CPNWR by the 1990 Arizona Wilderness Act (House Report 2570 Title III). The Cabeza Prieta Wilderness encompasses 93 percent (803,418 acres) of CPNWR and was created to preserve the Sonoran Desert Ecosystem. CPNWR and designated Wilderness is a shelter for endangered species (e.g., the Sonoran pronghorn and lesser long-nosed bat), and seeks to protect, maintain, and restore Sonoran Desert Ecosystems. Management of the Cabeza Prieta Wilderness is consistent with the regulations and prohibitions of the Wilderness Act.

These Acts govern all CPNWR management decisions that affect the resources the CPNWR is mandated to conserve and protect. The CPNWR has issued General Management Policies that must be adhered to when making management decisions.

#### **Minimum Requirement Analysis**

As specified under Section 4(c) of the Wilderness Act, a Minimum Requirement Analysis (MRA) is a process that helps an agency determine whether an action should be completed in designated wilderness. A MRA consists of (1) a determination of whether a project or activity is necessary to meet the minimum requirements for the administration of the wilderness and (2) identification of the tool(s) or method(s) which should be used to complete the project that results in the least impact on the physical resource or wilderness values. A MRA also helps to identify, analyze, and select management actions that are the minimum necessary for wilderness without compromising safety. A MRA from CPNWR's manager would be required for the installation, operation, and maintenance of the proposed TCNS equipment including the use of helicopters in designated wilderness. Installation of the TCNS equipment would establish a man-made structure in designated wilderness. The MRA process would be completed prior to installation of the TCNS equipment.

#### **National Environmental Policy Act**

The National Environmental Policy Act (NEPA) of 1969 is the governing legislation guiding the preparation of this document. NEPA requires that Federal agencies consider the potential effects of actions that might adversely affect the environment, consider possible alternative courses of action to reduce impacts, before approving the project. DHS Instruction 023-01-001-01, Revision 01, Implementation of the NEPA provides guidance for CBP for the preparation of NEPA documents.

## 1.4 Objectives of the Action

### **Enhancement of CBP and CPNWR Employee Safety**

The proposed installation would provide additional radio assets on the CPNWR. This linked communication system would provide mutual back-up should one of the other communications sites become inoperable. The TCNS would improve response to emergency situations and increase chances of survival for CBP agents.

### **Increase Radio Coverage Area and Reduce “Blind Spots”**

CBP conducted coverage plots to determine the best location for maximum radio coverage. It was determined that the topography of the Dulce Mountains would reduce “blind spots” that currently exist south of the Agua Dulce Mountains.

### **Increase Communication Along the International Border**

The proposed installation would provide the radio coverage to satisfy the communication needs of CBP along the CPNWR portion of the border. The proposed installation would improve agency coordination response to deter illegal activities associated with border activities, cross border violations and smuggling with a goal of protecting CPNWR resources through improved communications.

### **Improve Security at Communication Installations on the International Border**

The proposed installation site is located in a remote, relatively inaccessible area of the CPNWR. Due to remoteness and difficulty of access, the site location in the Agua Dulce Mountains would serve as a security feature to prevent equipment tampering.

## 1.5 Resource Evaluation

CBP is required to comply with several environmental laws, regulations and policies for the proposed TCNS project to proceed. This section describes those resources studied in detail in this draft EA, the resources that were eliminated from detailed study and the specific law and regulations associated with each resource, if applicable.

### 1.5.1 Resources Studied in Detail

#### *Soil Resources*

Soils on the refuge are classified as “hyper thermic” (very hot) and arid. Steeper mountain areas within the refuge generally have limited soil, while the more gradual mountain slopes support a shallow layer of coarse soil. Alluvial fans, bajadas and stream channels support coarse-grained deposits. Fine-grain deposits of clay and silts occur in playas, and dunes consisting of wind-blown sand are found in the valleys. Most of the soil is high in salts. According to the Comprehensive Conservation Plan (CCP), two soil-related formations occur on the Refuge that are sensitive to disturbance: cryptogamic soil crusts and desert pavement (USFWS, August 2006). Cryptogamic soil crusts occur widely on valley floors. These tiny, black, irregularly raised pedestals in the sand are self-sustaining biological communities essential to the ecology of arid lands. Cryptogamic soils are fragile and very susceptible to damage from trampling and compaction. Desert pavement also occurs on the refuge. Desert pavement is a layer of coarse gravel and cobble size material that occurs in the surface of the older alluvial fans. When the pavement layer is disturbed, the surface

soils become more susceptible to erosion. Desert varnish, a mineralized coating, may also occur on desert pavement (USFWS, August 2006).

### ***Visual Resources***

Mountain peaks are traditionally a place where visitors to the CPNWR can climb and achieve an expansive view of the refuge and surrounding areas. The Agua Dulce Mountains are one of the mountain ranges in the refuge where a visitor seeking unimpaired views can climb. Relevant visual resources also include the view of the mountain from the surrounding desert.

### ***Cultural Resources***

Several laws and policies govern cultural resources. These include:

#### **National Historic Preservation Act (NHPA)**

The NHPA provides for the maintenance of a National Register of Historic Places. It provides for the protection of registered sites and sites that are eligible for registration and directs federal agencies to consult with applicable historic and cultural agencies before implementing a Federal action that could potentially impact registered sites or sites eligible for registration.

#### **Archeological Resources Protection Act (ARPA)**

The goal of the Archeological Resources Protection Act (ARPA) is to protect archeological resources on public and Indian lands by establishing criminal and civil penalties for unlawful excavation, removal, or destruction of such resources, and to set up permitting policies through the appropriate land manager. ARPA defined archeological resources as any material remains of past human life and activities. It provides for the preservation and custody of excavated materials, records and data; provides for confidentiality of archeological site locations; encourages cooperation with other parties to improve protection of archeological resources.

### ***Archeological Resources***

Archeological resources are the remains of past human activity. Archeological resources are typically buried but can extend above ground. They are commonly associated with prehistoric peoples but can also be products of more contemporary society.

#### **American Indian Religious Freedom Act**

The American Indian Religious Freedom Act declares “the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of their people, including, but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.”

### ***Ethnographic Resources***

Ethnographic resources are basic expressions of human culture and the basis for continuity of cultural systems. A cultural system includes both the tangible and the intangible. A cultural system includes native languages, religious beliefs, subsistence activities, and traditional arts. These manifestations of culture are supported by ethnographic resources such as structures with historical significance, ceremonial sites, traditional sacred places, and other places in the natural world. According to DHS Directive 017-01 (Historic Preservation in Asset Management and

Operations), CBP is required to consult with federally recognized Native American Tribes regarding CBP plans that may affect the ethnographic meaning of these resources.

### ***Wilderness Resources***

#### **Wilderness Act**

The Wilderness Act declares the policy of Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. Wilderness areas are to be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, and to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness. The act prohibits intrusions into these areas including structures, roads, trails, use of motor vehicles, and landing of aircraft, except to meet the minimum requirements for the administrative of the area.

### ***Biological Resources***

#### **Vegetation**

The project area is located within the lower Colorado subdivision of the Sonoran desert biotic community (Brown, 1994). Vegetation within the Sonoran Desert varies depending on the elevation, proximity to water and other environmental variables. The project site is sparsely vegetated. Common species that could occur at the project site include desert agave (*Agave deserti*), teddy bear cholla (*Cylindropuntia bigelovii*), brittlebush (*Encelia farinosa*), white bursage (*A. dumosa*), creosotebush (*Larrea tridentate*), ocotillo (*Fouquieria splendens*), cane cholla (*Cylindropuntia spinosior*), Graham's nipple cactus (*Mammillaria grahamii*), barrel cactus (*Ferrocactus cylindraceus*), and joint fir (*Ephedra nevadensis*) (Brown, 1994).

#### **Wildlife**

The Sonoran Desert is home to many species of birds, mammals, reptiles, and amphibians. Habitat types vary greatly depending on elevation and proximity to water sources. The Agua Dulce Mountains are generally characterized by rock outcroppings and sparse, low-lying vegetation such as cacti. Wildlife that typically utilizes such habitats includes insects, snakes, lizards, rodents, deer, antelope, birds and bats.

Mammals that occur in the project area include desert bighorn sheep (*Ovis canadensis nelson*), desert mule deer (*Odocoileus hemionus*), collared peccary (*Pecari tajacu*) and Sonoran pronghorn (*Antilocapra americana sonoriensis*). Other mammals include the mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*). Birds typically found within this habitat include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), Gambel's quail (*Callipepla gambelii*), whitewinged dove (*Zenaida asiatica*), lesser nighthawk (*Chordeiles acutipennis*), Gila woodpecker (*Melanerpes uropygialis*), ash-throated flycatcher (*Myiarchus cinerascens*), loggerhead shrike (*Lanius ludovicianus*), horned lark (*Eremophila alpestris*), verdin (*Auriparus flaviceps*), rock wren (*Salpinctes obsoletus*), curve-billed thrasher (*Toxostoma curvirostre*), cactus wren (*Campylorhynchus brunneicapillus*), phainopepla (*Phainopepla nitens*), and black-throated sparrow (*Amphispiza bilineata*). The desert in Arizona's southwest is considered a "hot spot" for reptile species, hosting numerous species of lizards and snakes. Reptiles occurring in the Refuge include the side-blotched lizard (*Uta*



*stansburiana*), tiger whiptail (*Aspidoscelis tigris*), desert horned lizard (*Phrynosoma platyrhinos*), desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Callisaurus draconoides*), coachwhip snake (*Masticophis flagellum*), Sonoran gophersnake (*Pituophis catenifer affinis*), longnosed snake (*Rhinocheilus lecontei*), desert patch-nosed snake (*Salvadora hexalepis*), western diamond-backed rattlesnake (*Crotalus atrox*), Mohave rattlesnake (*Crotalus scutulatus*), rosy boa (*Lichanura trivirgata*), and sidewinder (*Crotalus cerastes*) (U.S. Department of the Interior, U.S. Fish and Wildlife Service, 2011).

### **Migratory Bird Treaty Act**

Under the MBTA, it is unlawful “by any means or manner, to pursue, hunt, take, capture, [or] kill” any migratory birds except permitted by regulation. Unintentional take constitutes a violation. While minor modifications of habitat possibly used by migratory species may occur at the proposed site, habitat modification is not considered a “take”.

### **Threatened and Endangered Species**

#### **Endangered Species Act (ESA)**

The Endangered Species Act provides a means for the protection of listed endangered and threatened species, including vegetation and wildlife. It is comprehensive in that it also provides for the protection of critical habitats on which these species depend on for survival.

A list of threatened and endangered species that may occur is included in Table 3.1.

### ***Health and Safety***

CPNWR receives approximately 2,000 visitors per year and employs approximately 43 permanent and seasonal employee and volunteers. The health and safety of visitors and employees is the primary concern of CPNWR Staff (Soto, 2020).

### ***Recreational Opportunities and Experience***

The accessibility of CPNWR provides opportunities to experience the CPNWR through many types of recreational activities. Recreational activities in the Agua Dulce Mountains include backpacking, hiking, primitive camping, wildlife watching, photography and solitude. Although the public has unrestricted access to the mountains, there are no maintained trails in the Agua Dulce Mountains. No maintained campsites are located on the mountain. The proposed action would alter the pristine condition of the mountain peak.

Mountain peaks represent a unique environment for all human beings to mediate and connect with the natural world. Mountain peaks are sought for their outstanding views, pristine conditions, symbolic meaning and as places for meditation. Although the proposed action would not affect the opportunities for recreation, it would impact the recreational experience of the peak.

## 1.5.2 Resources Eliminated From Detailed Study

### *Cultural Resources*

#### **Cultural Landscapes**

Cultural landscapes are settings humans have created in the natural world that reveal the relationship between people and the land, based on our need to grow food, form communities, and meet recreational needs. Landscapes are defined by the intertwining patterns of things that are constructed by people and the natural environment.

The proposed action is located in a remote area of CPNWR. The TCNS would have a negligible effect on the cultural landscape of the CPNWR region.

#### **Historic Structures**

Structures are material assemblies that extend the limits of human capability. A historic structure includes buildings, bridges, ships, monuments and other such items that connect people with their history.

There are no known historic structures, recorded or observed, at the proposed site (Slone S. , 2020). The proposed action would have no impact on historic structure resources of the CPNWR.

#### **Museum Collections**

Museum collections are collected objects that are records of behavior and ideas. They are the evidence of technological development, scientific observation, personal expression, and daily habits of a culture.

The proposed action is located in a remote area of the CPNWR. No museum collections or facilities are located in the area of potential effect; therefore, there would be no impact on existing museum collections if the proposed action were implemented.

### *Floodplains*

#### **Executive Order 11988 (Floodplain Management)**

Executive Order (EO) 11988 directs federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The proposed site is located near the summit of Agua Dulce Mountain, at 2,839 feet above sea level. The nearest water body is the San Cristobal Wash approximately 4.5 miles east of the site. The proposed site is not located within the 100 or 500-year floodplain. There would be no impact on floodplains if the proposed action were implemented.

### *Prime and Unique Farmlands*

#### **Farmland Protection Policy Act**

As a result of a substantial decrease in the amount of open farmland, the Farmland Protection Policy Act was put forth by Congress to minimize the conversion of farmland to non-agricultural

uses that occurs through Federal activities. The Natural Resources Conservation Service (NRCS) administers this act.

No prime or unique farmlands are present at the proposed site. No impacts to farmlands would occur if the proposed action were implemented.

### ***Water Resources and Wetlands***

#### **Clean Water Act**

The Clean Water Act (CWA) regulates pollutant discharges into waters of the U.S. from point sources and non-point sources. The CWA also regulates discharges of dredged and fill material into jurisdictional wetland resources.

No pollutant discharges are associated with the proposed action. No surface water bodies are located at the proposed site. Therefore, no impacts to water resources are anticipated.

#### ***Fisheries Resources***

No water bodies are located at or near the propose site. No significant ground disturbance would be conducted, so no sedimentation would be expected in downstream water bodies. No fisheries resources would be impacted by the proposed action.

#### ***Noise***

The proposed site is located in a very remote area. No anthropogenic noise sources are located within one mile of the site. The project consists of installing a solar-powered telecommunications system. No generators or other machinery that generates noise would be installed at the site.

Noise impacts associated with eight helicopter trips for the installation and maintenance would be negligible and temporary. No potential noise receivers are located within close proximity. Wildlife would likely be only temporarily displaced by the noise of the helicopter. Disturbance to CPNWR visitors would be negligible due to the infrequent trips and low visitor use of this area.

#### ***Hazardous Materials***

The proposed site has historically been undeveloped and has not been associated with any known activities or past uses that involved the generation, storage, or disposal of hazardous materials. The proposed action would involve placing batteries at the site. These batteries are sealed and stored inside a metal box. The integrity of these batteries would be monitored during maintenance trips and are not expected to impact resources on the mountain.

#### ***Infrastructure Improvements***

The proposed site is located in a very remote area of CPNWR. There are no roads, trails, utility corridors or other infrastructure improvements at the proposed site. The proposed action does not include construction of any permanent structures or improvements. The TCNS would be solar-powered with battery banks, so no electrical transmission lines would be constructed. A permanent foundation would not be constructed. The shelter will be anchored using rock anchors and cabling. No permanent helipad would be constructed for the site. No heavy equipment, such

as cranes or bulldozers, would be used to install the TCNS. The proposed action does not include the installation of a security fence.

### ***Minerals and Energy Resources***

No impacts to minerals or energy resources are anticipated at the proposed site.

### ***Architectural Resources***

The proposed site is historically undeveloped. No structures are located at the proposed installation site or within one mile of the site.

### ***Air Resources***

#### **Clean Air Act (CAA)**

The Clean Air Act was enacted to protect the quality of the Nation's air resources and the public health and welfare. The CAA regulates the air emissions from sources and sets national standards (National Ambient Air Quality Standards) on the amounts of certain pollutants that are allowed anywhere in the United States. The Act mandates that the EPA identify and set standards for six criteria air pollutants (Carbon Monoxide, Lead, Ground-Level Ozone, Nitrogen Dioxide, Particulate Matter and Sulfur Dioxide).

No motors or other mechanical equipment, such as cooling fans, would be located at the proposed site. No emissions of criteria air pollutants are associated with the proposed action with the exception of helicopter emissions. These emission levels are anticipated to be negligible. The batteries that would be used for the installation are sealed lead-acid batteries, which prevent a release of corrosive acid fumes and other gases. The proposed action is not subject to general conformity rules.

### ***Wild and Scenic Rivers***

#### **Wild and Scenic Rivers Act**

The Wild and Scenic Rivers Act created the National Wild and Scenic Rivers System to preserve rivers found to be regionally or nationally significant (outstanding natural, cultural, and recreational values) in a free-flowing condition for the enjoyment of present and future generations. Designated segments need not include the entire river and may include headwaters and tributaries.

There are no wild and scenic rivers within the CPNWR.

### ***Wind***

The proposed TCNS would have one antenna mast approximately 14-feet tall. Due to the relatively short height, wind impacts as a result of the installation are not anticipated. The antennas would be attached to the TCNS shelter.

### ***Environmental Justice***

#### **Executive Order 12898 (Federal Actions and Environmental Justice)**

This Executive Order (EO) directs federal agencies to identify and address any disproportionately high and adverse human health and environmental effects of its programs, activities and policies on minority and low-income populations.

The proposed site is located in a remote area of CPNWR. The United States Census Bureau has no census tract for the proposed site. No human communities exist at the proposed site; therefore, no communities would be divided or displaced. The proposed action would beneficially affect the project area, regardless of race and income level. The proposed action would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children.

## 2 Proposed Action and Alternatives

### 2.1 Alternative A: Installation of the Tactical Communications Network System on Agua Dulce Mountain (Preferred Alternative)

***Preferred Alternative:*** The preferred alternative, or proposed action, would involve the installation of a solar-powered Tactical Communication Network System that would consist of a TCNS shelter, communications equipment (Codan Repeater), communication antennas, and solar panels (Figure 4). The TCNS is minimal in nature. The system is open and would allow water and diffuse light to pass through to the ground. The shelter would be anchored to the ground using rock anchors and anchoring cables. No digging or excavation would be performed. No heavy equipment such as cranes, or bulldozers, would be used to install the shelter. The proposed action includes the installation of communications equipment where no previous intrusion has occurred. The equipment would be painted to blend with the background and minimize glare. No lights would be attached to the antennas or shelter.

During installation, the area surrounding the shelter would be affected as component pieces of equipment are staged on the ground around the shelter site until carried to the site for installation. For this reason, the area affected during initial construction is larger, but short term. The entire assembly area (including the shelter footprint) is approximately 600 square feet (20' x 30'). The footprint of the shelter skid (3' x 7') is a smaller, negligible effect over the long term. One antenna mast, approximately 14 feet in height, would be mounted to the shelter. The only potential invasive disturbance would be the installation of a lightning rod to electrically ground the equipment. This rod would be located within the 21 square foot area and be placed at a depth no more than 12 inches below ground surface.

The project site is on a remote mountaintop ridge. It is not protected by a security fence, and is accessible only by helicopter, on horseback, or on foot. Due to the weight of the equipment to be installed, all equipment and personnel would be airlifted to the site during the installation phase of the project. Installation would be complete in one day. Thereafter, scheduled maintenance and repair or replacement of faulty equipment would occur once per year by helicopter, on foot, or on horseback depending on season of year (no helicopter access would occur between March 15 and July 15 due to the Sonoran pronghorn (*Antilocapra americana sonoriensis*) fawning season). Any replaced equipment would be recycled or otherwise disposed of properly. Trips for emergency repairs may be necessary in addition to the annual maintenance trips. Eight round trips are estimated to transport the construction crew and equipment. No access roads, utility lines or permanent helipad would be constructed.

The helicopter landing zone measures 100' x 100' and is approximately 700' from the TCNS shelter location (Figure 3). The helicopter will land twice during the installation to drop off and pick up personnel. Additional trips will be to transport equipment to the TCNS location via external sling loads.

The equipment staging area measures 100' x 100' (Figure 2). Equipment staging will be in a previously disturbed area along the border road used for equipment and material staging during the border wall construction.

**Discussion:** The proposed site meets the communications coverage needed by CBP. The site also meets the objective to reduce “blind spots” that exist with the current communications capability south of the Agua Dulce Mountains. In addition, the site provides the security desired for a communication installation and a safe location for maintenance of the equipment.

The installation would enhance coordination between various law enforcement agencies and would improve law enforcement response to illegal activities. Improvements in law enforcement capabilities would result in deterrence of illegal activities along the CPNWR portion of the border.

No threatened or endangered species or their critical habitats are located at the proposed TCNS site. It is possible for the Sonoran pronghorn (*Antilocapra americana sonoriensis*) to be present in the vicinity of the equipment staging area. The proposed site is utilized by a variety of desert plants and wildlife. Graham’s nipple cactus (*Mammillaria grahamii*), a species of concern, has the potential to occur in the project area.

The Agua Dulce Mountains receive few visitors per year due to the remoteness of the site and the difficulty of the hike. Visitors currently have unrestricted access to the mountain. People tend to seek mountain peaks for the pristine conditions, expansive views and opportunities for meditation.

**Rationale for Further Consideration of Alternative:** The proposed action would provide more efficient communication for more effective law enforcement patrol of the associated portion of the international border. CBP response time to reported CBV activities would improve. The improved communications, which improve law enforcement capabilities, would deter illegal activities resulting in beneficial impacts to the health and safety of agents, CPNWR staff and visitors and in a reduction in resource damage on CPNWR.

A minimum requirement analysis was conducted for the proposed action. The analysis determined that the proposed action would be the minimum tool necessary to administer the wilderness area (USFWS, August 2020).

The CPNWR and CBP agree for this project that the term “Reasonably Foreseeable Future” would mean within five years of the installation of the TCNS. After five years, operation of TCNS will be reviewed by both CPNWR and CBP. If the TCNS is deemed unnecessary, then it will be removed.

## Mitigation Measures

**Cultural Resources:** The CPNWR is not aware of any cultural resources being present at the staging area, helicopter landing site or TCNS site (Slone S. , 2020). A cultural resource monitor will be present during equipment staging and installation. The monitor will conduct a site walk and direct operations and equipment placing to avoid any observed artifacts.

**Natural Resources:** Limiting the CPNWR and CBP personnel on-site will help prevent impacts to the area including vegetation trampling and soil erosion. The site would be revegetated with native plants, if needed, and the area would be monitored for invasive plants. A biological resource monitor will be present during equipment staging and installation. The monitor will conduct a site walk and direct operations and equipment placing to avoid any observed occurrences of the Graham's nipple cactus (*Mammillaria grahamii*).

**Visual:** The proposed installation would be visible from some parts of the surrounding desert. The installation would be painted to match the surrounding environment to mitigate the adverse visual effect.

## 2.2 Alternative B: Maintain Current Communications Capabilities (No Action Alternative)

**Proposed Alternative:** The no action alternative would involve maintaining the current communications capabilities. The alternative would not include the placement of a TCNS in the Agua Dulce Mountains or any peak in CPNWR or surrounding properties.

**Discussion:** This alternative would have no direct environmental impacts. The Agua Dulce Mountains would remain in its current condition. No physical, economic, cultural, biological or social resources would be impacted in the Agua Dulce Mountains.

However, the no action alternative could have adverse impacts to the physical and biological resources of CPNWR. The areas that currently have little to no radio coverage south of Agua Dulce Mountains would continue to have little or no radio coverage, which could have an adverse effect on the health and safety of resource managers, interpretive staff, volunteers and law enforcement personnel, who travel to these areas of the CPNWR. This alternative could limit the ability of law enforcement in deterring illegal activities that result in the degradation of natural resources.

The wilderness character of Agua Dulce Mountains would not be adversely impacted by this alternative. However, the Agua Dulce Mountains area would have no effective, reliable radio coverage for the administration of the area.

**Rationale for Further Consideration of Alternative:** This alternative provides a basis of comparison for the preferred alternative. This alternative would result in no physical, cultural,



biological or social environmental impacts in the Agua Dulce Mountains. This alternative could result in natural resource damage in other areas of the CPNWR due to the limitations of current communications capabilities. In addition, this alternative could contribute to a continued upward trend in illegal activities on the border, potentially compromising CBP agent, CPNWR staff and visitor safety on the CPNWR.

## **2.3 Others Alternatives Considered and Dismissed**

### **Alternate Site Outside of CPNWR Boundaries**

**Proposed Alternative:** Find a location for the TCNS outside of the boundaries of the CPNWR.

**Discussion:** This alternative would remove any impacts to CPNWR lands and prevent intrusion into lands managed as wilderness. Biophysical effects would be eliminated from CPNWR lands and transferred to private or public lands outside the CPNWR. Wilderness experiences would not be harmed unless the site was visible from portions of the CPNWR.

**Rationale for Elimination of the Alternative:** There are no peaks on lands outside the CPNWR that provide the radio signal coverage strength and area that the Agua Dulce Mountains site provides to CBP in the proposed project. At sites outside CPNWR, CBP loses radio coverage of areas that an Agua Dulce Mountain facility would cover.

Health and safety of the public and government employees would be compromised by the installation of a system that does not maximize the coverage and quality of radio communications.

This alternative does not meet the need and objectives of the proposed action and is eliminated from detailed study.

### **Use of Satellite Phones**

**Proposed Alternative:** Use satellite phones for backcountry and patrol work in areas of unreliable communications.

**Rationale for Elimination of the Alternative:** This alternative was found to be unsatisfactory based on several factors: satellite phones do not support sensor operations and do not allow immediate communications; agents are unable to use this technology during a physical confrontation; each agent working in the backcountry would need a satellite phone. The number of satellite phones needed to support this alternative would be cost prohibitive.

Due to the insufficient capabilities of satellite phones relative to the needs of CBP, this alternative was excluded from further consideration and analysis.

The proposed TCNS technology is the only available communications equipment that would ensure adequate encryption for law enforcement personnel, coverage throughout the remote portions of the Ajo Station Area of Responsibility, and lack of interference from other communications systems.

## **3 Affected Environment**

### **3.1 Introduction**

The affected environment succinctly describes the relevant resources of the areas that would affect or that would be affected by the alternatives if they were implemented. In conjunction with the description of the no action alternative in Chapter 2 and the predicted effects of the no action alternative in Chapter 4, this chapter establishes the scientific baseline against which the decision maker and the public can compare the effects of the preferred action alternative.

### **3.2 Physical Resources**

#### ***3.2.1 Soil Resources***

Soils on the CPNWR are classified as “hyper thermic” (very hot) and arid. Steeper mountain areas within the refuge generally have limited soil, while the more gradual mountain slopes support a shallow layer of coarse soil. Alluvial fans, bajadas and stream channels support coarse-grained deposits. Fine-grain deposits of clay and silts occur in playas, and dunes consisting of wind-blown sand are found in the valleys. Most of the soil is high in salts. According to the CCP, two soil-related formations occur on the Refuge that are sensitive to disturbance: cryptogamic soil crusts and desert pavement (USFWS, August 2006). Cryptogamic soil crusts occur widely on valley floors. These tiny, black, irregularly raised pedestals in the sand are self-sustaining biological communities essential to the ecology of arid lands. Cryptogamic soils are fragile and very susceptible to damage from trampling and compaction. Desert pavement also occurs on the refuge. Desert pavement is a layer of coarse gravel and cobble size material that occurs in the surface of the older alluvial fans. When the pavement layer is disturbed, the surface soils become more susceptible to erosion. Desert varnish, a mineralized coating, may also occur on desert pavement (USFWS, August 2006).

#### ***3.2.2 Visual Resources***

Mountain peaks are traditionally a place where visitors to the CPNWR can climb and achieve an expansive view of the CPNWR and surrounding areas. The view from Agua Dulce encompasses 360 degrees with unimpaired views of the surrounding desert and mountain ranges.

Given the low height and profile of the TCNS shelter and solar panels, the likelihood of someone on the ground seeing a reflection from the solar panels is minimal.

Objections to proposed solar photovoltaic (PV) installations include concerns that the modules will cause glare. Research on this subject demonstrates that PV modules exhibit less glare than windows and water. Solar PV modules are specifically designed to reduce reflection, as any reflected light cannot be converted into electricity (Day & Mow, 2018).

Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles. Thus reflected light from the solar panels will not constitute a visibility issue (U.S. Department of Energy, September 2018).

### ***3.2.3 Archeological Resources***

According to the Cabeza Prieta National Wildlife Refuge Comprehensive Conservation Plan (CCP), less than one percent of the CPNWR has been inventoried for archeological and historic sites (USFWS, August 2006). Available reports and accounts for the CPNWR come from a handful of limited surveys that have been conducted (Ezell, 1954), (Fontana, 1965), (Rozen, 1979), as well as sporadic visits to the area made by southwest scholars since the 1920s.

The Cultural Resources Overview and Assessment, Cabeza Prieta National Wildlife Refuge published in 2001 compiles current knowledge of cultural artifacts and use patterns on the CPNWR. Within the CPNWR, prehistoric and historic sites have been recorded by a statewide survey (SWCA, 2001). In addition, there are numerous site “leads” and site locations that are known but have not been formally recorded (USFWS, August 2006).

### **Prehistoric and Historic Data**

Prehistoric sites within the CPNWR are generally limited to surface scatters suggesting ephemeral use or occupation of locations by widely dispersed, small groups of prehistoric hunter-gatherers (USFWS, August 2006).

Sites observed have included low-density artifact scatters, fire-burned rock and hearths, trails, bedrock mortars, rock alignments, stone piles or cairns, stone windbreaks, sleeping circles, shallow rock shelters, and petroglyphs (USFWS, August 2006). Historic sites on the CPNWR are primarily early 20th century mining camps and prospecting strikes. El Camino del Diablo is an historic corridor that traversed parts of the CPNWR landscape between 1540 and the late 1800s (USFWS, August 2006).

### ***3.2.4 Ethnographic Resources***

According to the CCP, ethnographically, the CPNWR was the homeland of the Hia C-ed O’odham (Sand Papago). The Hia C-ed O’odham were Piman-speaking, hunting/gathering populations who lived west of Ajo throughout historic times. The small, dispersed bands of Hia C-ed O’odham were encountered by Padre Kino, a late Seventeenth Century Jesuit missionary, who traveled extensively in the area that became southern Arizona and northern Sonora, and by travelers on El Camino del Diablo for two centuries.

While the archeological evidence does not necessarily correspond to historic linguistic groups, it suggests that Hia Ced O’odham ancestry may extend back more than a thousand of years on the CPNWR (USFWS, August 2006).

### **3.2.5 Wilderness Resources**

The Wilderness Act of 1964 (P.L. 88-577 [Wilderness Act]) defines a wilderness as “an area where the earth and its community of life are untrammelled by man, where man himself is a visitor and does not remain.” It is further defined as “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve the natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable, has outstanding opportunities for solitude or a primitive and unconfined type of recreation and has at least five thousand acres of land or is sufficient in size as to make practicable its preservation as use in an unimpaired condition.”

The Wilderness Act allows for the establishment of a National Wilderness Preservation System and for the establishment of wilderness on federally owned lands designated by Congress. Areas designated as wilderness are to be administered in such a manner as to leave the lands undisturbed for future use and enjoyment by the public as wilderness and to provide protection of these areas for the preservation of their wilderness character. As defined by the Wilderness Act, wilderness should provide for the opportunities to experience solitude, unconfined recreation, and naturalness (88th Congress, 1964) .

To maintain the wilderness characteristics of designated wilderness areas, certain activities are prohibited, including commercial enterprise and permanent roads, and, except as necessary to meet minimum requirements for the administration of the area for the purpose of the Wilderness Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, nor use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation (97th Congress, 1982).

#### **National Wilderness Preservation System**

In 1974, 833,500 acres of the CPNWR were proposed to be included as part of the National Wilderness Preservation System (Senate Committee on Energy and Natural Resources, 1974). The proposal excluded approximately 37,000 acres along the southern boundary known as the Tule Well exclusion, and a 600-foot corridor along El Camino del Diablo and the Christmas Pass Road. The proposal included adding the 80,000 acre area known as Tinajas Altas to the CPNWR and designating 72,700 acres of the parcel as Wilderness.

Congress directed that the USFWS manage all areas proposed for wilderness as de facto Wilderness pending study and final designation. A BLM study prior to 1990 indicated that a majority of the Tinajas Altas area had been impacted by surface military training and no longer possessed high or threatened cultural, wildlife, scenic or botanical resource values. Tinajas Altas was removed from the 1990 final wilderness proposal due to this degradation. The final proposal included the Tule Well Exclusion, and narrowed the travel corridors to 200 feet, resulting in a Wilderness proposal of 803,418 acres (USFWS, August 2006).

### **The Arizona Desert Wilderness Act of 1990**

The Arizona Desert Wilderness Act of 1990 (HR 2570 Title 3) designated about 93 percent of the CPNWR, or 803,418 acres as Wilderness (101st Congress, 1990). This designation provides an additional Refuge purpose. The CPNWR's wildlife management responsibilities remain unchanged but must be implemented within the context of the Wilderness Act of 1964. While the Wilderness Act does not prevent activities essential to the Refuge's purpose, it does affect the manner in which these activities occur. Permanent roads are prohibited in Wilderness. Temporary roads, use of motor vehicles, motorized equipment, landing of aircraft, other forms of mechanical transport, and structures and installations are also prohibited, except as minimally required to administer the area as Wilderness. Additionally, Wilderness designation calls for expanded monitoring requirements on the effects of public visitation. A MRA is required to make a determination whether the action under consideration is the minimum necessary for wilderness administration.

### **CPNWR and Cabeza Prieta Wilderness**

The CPNWR is one of 510 refuges governed by the National Wildlife Refuge System Administration Act of 1966, as amended (Refuge Act; P.L. 106-580) (106th Congress, 2000), and National Wildlife Refuge System Improvement Act (P.L. 105-57) (105th Congress, 1997). The Refuge Act consolidated the authorities relating to the areas that are administered by the Secretary of the Interior. The act also provides for the conservation, protection, and propagation of native species of fish and wildlife, including migratory birds that are threatened with extinction and their habitats, for the benefit of present and future generations of residents of the United States. Cabeza Prieta Wilderness was created within CPNWR by the 1990 Arizona Wilderness Act (101st Congress, 1990) to preserve the Sonoran Desert Ecosystem (Figure 5). CPNWR and designated Wilderness is a shelter for endangered species (e.g., the Sonoran pronghorn and lesser long-nosed bat), and seeks to protect, maintain, and restore Sonoran Desert Ecosystems. Management of the Cabeza Prieta Wilderness is consistent with the regulations and prohibitions of the Wilderness Act.

### **Minimum Requirement Analysis**

A Minimum Requirement Analysis (MRA), as specified under Section 4(c) of the Wilderness Act, is a process which helps an agency determine whether an action should be completed in designated wilderness. A MRA consists of a determination of whether a project or activity is necessary to meet the minimum requirements for the administration of the wilderness and identification of the tool(s) or method(s) which should be used to complete the project that results in the least impact on the physical resource or wilderness values. A MRA also helps to identify, analyze, and select management actions that are the minimum necessary for wilderness without compromising safety.

A MRA from CPNWR's manager would be required for the installation, operation, and maintenance of the proposed TCNS equipment in the Agua Dulce Mountains, including the use of helicopters in designated wilderness. The MRA process would be completed prior to installation of the TCNS equipment.

### 3.3 Biological Resources

#### 3.3.1 Vegetation

The project area is located in the Lower Colorado River Valley Subdivision of the Sonoran Desertscrub Biome (Brown, 1994). The plant species that inhabit this area are adapted to dry, desert environments. Tree species include western honey mesquite, ironwood, blue palo verde, and Smoketree. Additional species that are only found in washes include desert willow, Chuparosa, canyon ragweed, desert honeysuckle, catclaw acacia, Burrobrush, and desert broom. In dryer and more barren upland areas the more common desert pavement plants are wooly plantain, creosotebush, white bursage, ocotillo, brittlebush, foothill palo verde, and saguaro. A number of cacti are commonly found in this biome subdivision. They include silver cholla, diamond cholla, teddy bear cholla, chainfruit cholla, Englemann hedgehog, and fishhook barrel cactus (U.S. Department of the Interior, U.S. Fish and Wildlife Service, 2011).

#### 3.3.2 Wildlife

Mammals that occur in the project area include desert bighorn sheep (*Ovis canadensis nelson*), desert mule deer (*Odocoileus hemionus*), collared peccary (*Pecari tajacu*) and Sonoran pronghorn (*Antilocapra americana sonoriensis*). Other mammals include the mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*). Birds typically found within this habitat include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), Gambel's quail (*Callipepla gambelii*), whitewinged dove (*Zenaida asiatica*), lesser nighthawk (*Chordeiles acutipennis*), Gila woodpecker (*Melanerpes uropygialis*), ash-throated flycatcher (*Myiarchus cinerascens*), loggerhead shrike (*Lanius ludovicianus*), horned lark (*Eremophila alpestris*), verdin (*Auriparus flaviceps*), rock wren (*Salpinctes obsoletus*), curve-billed thrasher (*Toxostoma curvirostre*), cactus wren (*Campylorhynchus brunneicapillus*), phainopepla (*Phainopepla nitens*), and black-throated sparrow (*Amphispiza bilineata*). The desert in Arizona's southwest is considered a "hot spot" for reptile species, hosting numerous species of lizards and snakes. Reptiles occurring in the Refuge include the side-blotched lizard (*Uta stansburiana*), tiger whiptail (*Aspidoscelis tigris*), desert horned lizard (*Phrynosoma platyrhinos*), desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Callisaurus draconoides*), coachwhip snake (*Masticophis flagellum*), Sonoran gophersnake (*Pituophis catenifer affinis*), longnosed snake (*Rhinocheilus lecontei*), desert patch-nosed snake (*Salvadora hexalepis*), western diamond-backed rattlesnake (*Crotalus atrox*), Mohave rattlesnake (*Crotalus scutulatus*), rosy boa (*Lichanura trivirgata*), and sidewinder (*Crotalus cerastes*) (U.S. Department of the Interior, U.S. Fish and Wildlife Service, 2011).

#### 3.3.3 Threatened and Endangered Species

A list of threatened and endangered species that may occur in the project vicinity is included in Table 3.1. According to CPNWR staff, the only federally listed threatened and endangered species wildlife that may potentially occur at the project site is Sonoran Pronghorn Antelope (*Antilocapra americana sonoriensis*). A species of concern, Graham's nipple cactus (*Mammillaria grahamii* [Also known as Arizona Fish Hook Cactus]) may also be present at the project site (Slone S. , 2020). There are no designated critical habitats at the project location.

**Table 3.1 Threatened and Endangered Species**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status</b>
<b>Mammals</b>		
Jaguar	<i>Panthera onca</i>	E
Sonoran Pronghorn Antelope	<i>Antilocapra americana sonoriensis</i>	E
<b>Birds</b>		
California Least Tern	<i>Sterna antillarum browni</i>	E
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	T
<b>Reptiles</b>		
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	T
Sonoyta Mud Turtle	<i>Kinosternon sonoriense longifemorale</i>	E

### **3.4 Economic and Social Resources**

#### **3.4.1 Health and Safety**

CPNWR receives approximately 2,000 visitors per year and employs approximately 43 permanent and seasonal employees and volunteers. A large portion of the area south of the Agua Dulce Mountains has unreliable or no radio coverage. The health and safety of visitors and employees is a primary concern of CPNWR. The absence of reliable radio coverage is causing unsafe conditions at CPNWR for visitors, employees and CBP agents.

#### **3.4.2 Recreational Opportunities and Experience**

The accessibility of CPNWR provides opportunities to experience the CPNWR through many types of recreational activities. Recreational activities available in or near the Agua Dulce Mountains include backpacking, hiking, camping, wildlife watching, photography and solitude. There are no maintained trails in the Agua Dulce Mountains. Camping is not allowed in the Agua Dulce Mountains.

In addition, mountain peaks represent a unique environment for all human beings to meditate and connect with the natural world. The public has unrestricted access to the Agua Dulce Mountain, as well as most areas of the CPNWR.



## 4 Environmental Consequences

### 4.1 Introduction

This chapter discusses the direct, indirect and cumulative environmental consequences of the alternatives. Environmental consequences are the effects or impacts on the physical, biological and socio-economic resources that may be caused by the implementation of the alternative. The relative significance of the effect or impact is measured by a comparison of the context, duration and intensity of the effect of the alternative and the current activities occurring in the Agua Dulce Mountains and in CPNWR.

### 4.2 Methodology

The impact and conclusions in this document are based on the review of information provided by CBP, CPNWR staff, review of existing literature, coordination with regulatory agencies, and the professional judgment of the preparers of this draft EA. The environmental consequences are evaluated within the context of the proposed site, which is the Agua Dulce Mountains, and the immediate adjacent area, as well as within the context of CPNWR and its associated resources. The evaluation of impacts within the context of CPNWR is based on trends and expected effects. The following definitions apply to all resource impact categories.

***Beneficial effect*** is a beneficial change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.

***Adverse effect*** is a change that moves the resource away from a desired condition or detracts from its appearance or condition.

***Direct effect*** is defined as an effect that occurs at the same time and place as the action. For example, a direct impact resulting from installation activities would be the disturbance and compaction of soil at the TCNS site.

***Indirect effect*** is defined as an effect that is spatially removed from the action or occurs later in time but is considered likely in the foreseeable future. For example, an indirect effect of the proposed action would be the disturbance and compaction of soil from foot traffic during the annual maintenance trips.

***Short-term effect*** is defined as an effect that occurs during the implementation of the alternative (i.e. the installation of the TCNS on the mountain).

***Long-term effect*** is defined as an effect that extends beyond the implementation of the alternative (i.e. the subsequent maintenance activities and presence of the equipment on the mountain).

#### **4.2.1 Cumulative Effects Analysis**

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 *et seq.*), require assessment of cumulative impacts in the decision-making process for federal projects.

*Cumulative effects* are defined as “the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions associated with the activity in the project area and in the surrounding region, regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor but collectively significant actions over a period of time. Cumulative impacts are considered for both the no-action and preferred alternatives.

No past or present actions currently impact the Agua Dulce Mountains. The impact of the placement of the TCNS in the Agua Dulce Mountains would have reasonably foreseeable impacts on the physical, biological and social resources of the Mountains. In CPNWR, communications south of the Agua Dulce Mountains is limited due to radio shadow or “blind spots.” The proposed installation would reduce these “blind spots” and enhance communications for CBP patrol operations along the border. Based on the radio coverage achieved by the Agua Dulce Mountains TCNS, the need for additional TCNS on other mountain peaks is not anticipated. No other reasonably foreseeable actions, direct or indirect are expected to affect the Agua Dulce Mountains. Past or present actions included in this cumulative scenario for this project have negligible to minor effect on the Agua Dulce Mountains.

The no action alternative would not add future foreseeable impacts to the Agua Dulce Mountains. However, in CPNWR, current communications limitations would continue. The future reasonably foreseeable impacts to CPNWR would include inhibited interagency coordination and the continued trend in illegal activities. In addition, the no action alternative would likely result in placement of a TCNS on a different mountain peak in CPNWR.

#### **4.2.2 Thresholds of Change**

Because definitions of intensity (negligible, minor, moderate, or major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this draft EA. A threshold of change describes the effect of an action on a resource and is defined by the duration and intensity of the activity.

#### ***Impairment of CPNWR Resources and Values***

In addition to evaluating the environmental consequences of proposed alternatives under the NEPA, the CPNWR’s Management Policies also require analysis of potential effects to determine if implementation of alternatives would impair designated CPNWR resources and values. As established by the Organic Act and the General Authorities Act, National Wildlife Refuge managers must always seek ways to practically avoid or minimize adverse impacts to Refuge resources and values. However, the laws governing Wildlife Refuges give the USFWS

discretion to allow impacts to Refuge resources when necessary and appropriate, as long as the impact does not constitute an impairment of the affected resources and values. The impairment is an impact that, in the professional opinion of the responsible Refuge Manager, would harm the integrity of the resource or values. An impact to any Refuge resource or values may constitute impairment, but would more likely be considered impairment if it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the Refuge;
- Key to natural or cultural integrity of the Refuge or for enjoyment of the Refuge;
- Identified as a goal in the Refuge's General Management Plan or other relevant planning documents.

## 4.3 Physical Resources

### 4.3.1 Soil Resources

For the purpose of this analysis, intensity of impact, or threshold of change, to soil resources were defined as follows:

**Negligible** – Soils would not be affected or the effects to soils would be below or at the lower levels of detection. Any effects to soil productivity or fertility would be slight and no long-term effects to soils would occur.

**Minor** – The effects to soils would be detectable. Effects to soil productivity or fertility would be small, as would the area affected (<10 acres). If mitigation were needed to offset adverse effects, it would be relatively simple to implement and would likely be successful.

**Moderate** – The effect on soil productivity or fertility would be readily apparent, likely long-term, and result in a change to the soil character over a relatively wide area (11 to 100 acres). Mitigation measures would probably be necessary to offset adverse effects and would likely be successful.

**Major** – The effect on soil productivity or fertility would be readily apparent, long-term, and substantially change the character of the soils over a large area (>100 acres). Mitigation measures to offset adverse effects would be needed, extensive, and their success could not be guaranteed.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: The direct impacts of the proposed action on the soil resources at the site include soil compaction and disturbance of the desert soil due to rotor wash and foot traffic. Rotor wash at the landing site is capable of lifting soil aggregates up to 3 mm in size.

Soils on the CPNWR are classified as “hyper thermic” (very hot) and arid. Steeper mountain areas within the CPNWR generally do not have soil, while the more gradual mountain slopes support a shallow layer of coarse soil. Alluvial fans, bajadas and stream channels on the CPNWR support coarse-grained deposits. Fine-grain deposits of clay and silts occur in playas on the CPNWR while dunes consisting of wind-blown sand are found in the valleys. Most of the soil is high in salts (Richardson & Miller, 1974).

According to the CCP, two soil-related formations occur on the CPNWR that are sensitive to disturbance: cryptogamic soil crusts and desert pavement (USFWS, August 2006). Cryptogamic soil crusts occur widely on valley floors in the CPNWR. These tiny, black, irregularly raised pedestals in the sand are self-sustaining biological communities essential to the ecology of arid lands. Cryptogamic soils are fragile and very susceptible to damage from trampling and compaction. Desert pavement also occurs in the CPNWR. Desert pavement is a layer of coarse gravel and cobble-size material that occurs in the surface of the older alluvial fans. When the pavement layer is disturbed, the surface soils become more susceptible to erosion. Desert varnish, a mineralized coating, may also occur on the desert pavement.

It is likely that the disturbance of the desert pavement (a surface layer of closely packed or cemented pebbles, rock fragments, etc., from which fine material has been removed by the wind in arid regions), will affect the soils on Agua Dulce Mountain. Once the desert soil pavement is disturbed by the skids of the helicopter and the footsteps of personnel, the exposed soil will be susceptible to not only rotor wash but also the everyday winds.

The installation of the TCNS and the helicopter landing would result in minor compaction of the soil. Soil compaction reduces water infiltration into the soil, increases runoff and reduces revegetation. The landing site and the TCNS site are approximately 700 feet apart; therefore, foot traffic would impact the soil between the two sites. These impacts are expected to be long term.

Cumulative Impacts: The soil resources at the proposed site have been, up to the present, relatively undisturbed. The proposed action would involve annual maintenance trips to the site by helicopter. The periodic minor disturbance of the physical pavement of the desert soil would increase erosion of the soil. The cumulative effect of foot traffic and helicopter landing would continue to impact the site over the life of the installation and could lead to difficulties in re-establishing vegetation at the site.

In CPNWR, the proposed action would improve CBP’s deterrence of cross border violator activities and reduce cross border violator impacts (i.e. unauthorized trails and roads) on soil resources in multiple locations within CPNWR.

Conclusion: It is likely that the recurring minor soil disturbance at the proposed site would result in the loss of soil at the landing site affecting the soil productivity over the long-term.

Also, a cumulative effect of soil disturbance and erosion would make it more difficult to restore vegetation at the proposed site.

***Based on the area of impact of the proposed installation, the proposed action would have an overall minor, adverse effect to the soils on Agua Dulce Mountain. In the context of CPNWR an indirect, moderate, beneficial effect of the proposed action is expected due to enhancement of interagency coordination and the resulting reduction in cross border violator activities (i.e. unauthorized trails and roads) to desert soil in CPNWR. This alternative would not likely result in impairment of resources and values of CPNWR.***

#### *Effect of the No Action Alternative*

Direct/Indirect Impacts: The Agua Dulce Mountains receive relatively few visitors; therefore is it currently undisturbed by regular foot traffic. Aircraft do not regularly impact the mountain. No other direct or indirect impacts would be associated with this alternative.

Cumulative Impacts: No cumulative impacts to the resources on the Agua Dulce Mountains would be associated with this alternative. However, if the proposed action is not implemented, a new location would be evaluated. If the proposed TCNS were placed on another peak in CPNWR, the soil impacts would be similar to the impacts of the preferred alternative. Also, in CPNWR, cross border violator activities and impacts (i.e. unauthorized trails and roads) would continue. Interagency Coordination would be inhibited by the limited communications capabilities.

Conclusion: The current natural soil conditions and processes on the Agua Dulce Mountains would continue to occur. In CPNWR, the trend in cross border violator activities would continue to negatively impact the soil resources at multiple locations in CPNWR.

***The no action alternative would have no adverse impacts to the soil resources on the Agua Dulce Mountains. The continuing trend of cross border violator activities would result in a moderate, adverse effect on soil resources in CPNWR. The no action alternative would not likely lead to an impairment of CPNWR resources or values.***

### **4.3.2 Visual Resources**

For the purpose of this analysis, intensity of impact, or threshold of change, to visual resources were defined as follows:

**Negligible** – the impact is barely detectable, and/or will affect few visitors.

**Minor** – the impact is slight but detectable, and/or will affect some visitors.

**Moderate** – the impact is readily apparent and/or will affect many visitors.

**Major** – the impact is severely adverse or exceptionally beneficial and/or will affect the majority of visitors.

*Effect of the Preferred Alternative*

Direct/Indirect Impacts: The proposed action includes the installation of communications equipment where no previous intrusion has occurred. One 14-foot antenna mast will be anchored to the TCNS shelter. A 5-mile line-of-site analysis indicates that a Line-Of-Site from the ground level to the top of the Agua Dulce Mountains would not be visible from public access roads (Figure 6). The installation would be visible from a number of locations, if viewed through high-powered binoculars.

The presence of the TCNS is an obvious disturbance to the visual resources of the Agua Dulce Mountains.

Cumulative Impacts: No visual obstructions have been located on the Agua Dulce Mountains in the past. No additional equipment, fencing or other obstructions would be added to the installation in the reasonably foreseeable future. No cumulative impacts to visual resources are associated with this alternative.

Conclusion: The direct, long-term impact of the proposed action on visual resources is its visibility from the surrounding desert.

The antennae and shelter would be painted to blend with the surrounding environment to mitigate its effect on visibility from the surrounding desert.

***The impact of the installation on visibility is slightly adverse (minor), it only affects some visitors (minor), due to low visitation to the Agua Dulce Mountains. Therefore, the proposed installation would have a minor, long-term, adverse impact on the visibility resources of the summit of the Agua Dulce Mountains. In the context of CPNWR, the proposed installation occupies a very small area, is only visible in certain locations, and would be painted to reduce visibility from the surrounding desert: therefore the overall effect of the alternative on the visual resources of CPNWR is minor. This alternative is not likely to impair CPNWR resources or values.***

*Effect of the No Action Alternative*

Direct/Indirect Impacts: No man-made visual obstructions currently exist on the Agua Dulce Mountains. No direct or indirect adverse impacts would be associated with the no action alternative.

Cumulative Impacts: If the proposed action is not implemented, a new location for the TCNS would be evaluated. If the TCNS were placed on another peak in CPNWR, the visual resources would be similar to the impacts of the preferred alternative.

Conclusion: *This alternative would have no adverse impacts on the visual resources of the Agua Dulce Mountains. This alternative would likely have no adverse impact or a minor adverse impact on the visual resources of CPNWR, if a new location of the TCNS were found. This alternative would likely not impair CPNWR resources or values.*

### 4.3.3 Archeological Resources

For the purpose of this analysis, intensity of impact, or threshold of change, to archeological resources were defined as follows:

**Negligible** – Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for §106 would be *no adverse effect*.

**Minor** – Adverse: disturbance of a site(s) results in little, if any loss of integrity. The determination of effect for §106 would be *no adverse effect*. Beneficial: maintenance and preservation of a site(s). The determination of effect for §106 would be *no adverse effect*.

**Moderate** - Adverse: disturbance of a site(s) results in loss of integrity. The determination of effect for §106 would be *adverse effect*. A memorandum of agreement is executed among CBP, CPNWR and applicable state and tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts reduce the intensity of impact under NEPA from moderate to minor. Beneficial: stabilization of a site(s). The determination of effect for §106 would be *no adverse effect*.

**Major** – Adverse: disturbance of a site(s) results in loss of integrity. The determination of effect for §106 would be *adverse effect*. Measures to minimize or mitigate adverse impacts cannot be agreed upon and CBP, CPNWR, and applicable state and tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b). Beneficial: active intervention to preserve a site(s). The determination of effect for §106 would be *no adverse effect*.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: Archeological resources have not been mapped on the Agua Dulce Mountains. Review of databases and conversations with CPNWR staff indicate no known archeological or historical properties to be present on the Agua Dulce Mountains (Barnes, 2020), (Slone S. , 2020). However, if present, helicopter landings, foot traffic and the transporting of equipment during the initial installation would have a direct, long-term, minor

impact to areas where archeological materials may be present. Artifacts could be broken and/or compacted from foot traffic and the placement of equipment. Also, the actual setup activities could result in disturbance of features and the breakage of artifacts. As a mitigation measure, CBP will have a cultural resources monitor conduct a pre-deployment survey of the staging area, landing zone and TCNS site. Any observed artifacts will be marked and avoided. If observed artifacts cannot be avoided, deployment will halt pending consultation with Arizona State Historic Preservation Office.

No historic properties, structures, districts or sacred sites are located at or near the proposed site. Therefore, further consideration and analysis of effects to these resources were not carried forward.

Cumulative Impacts: There is no known disturbance of the site by human activities in the past. The proposed installation would require annual maintenance trips to the proposed site. The movement of equipment is likely to occur only during the initial installation. However, replacement of equipment parts and/or batteries would occur over the life span of the TCNS. No direct, long-term effects are anticipated from equipment movement around the site.

Conclusion: *If present, helicopter landings, foot traffic and the transporting of equipment would have a direct, long term, minor adverse impacts to areas where archeological materials may be present. This alternative would likely not impair CPNWR resources and values.*

#### *Effect of the No Action Alternative*

Direct/Indirect Impacts: The no action alternative would have no direct impact on the cultural resources of the Agua Dulce Mountains. Natural and cultural resource damage by cross border violator activities would continue.

Cumulative Impacts: No direct cumulative impacts would occur with this alternative. Cross border violator impacts to archeological and cultural resources of CPNWR would continue. In addition, if the proposed action is not implemented, a new location for the TCNS would be evaluated.

Conclusion: The site would remain undisturbed by proposed activities. Cross border violator impacts in CPNWR would continue.

*The effect of limited communications would have a long-term, minor, adverse impact on the cultural resources of CPNWR. This alternative would likely not impair CPNWR resources and values.*



#### 4.3.4 Ethnographic Resources

For the purpose of this analysis, intensity of impact, or threshold of change, to ethnographic resources were defined as follows:

**Negligible** – Impact(s) would be barely perceptible and would neither alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group’s body of practices and beliefs. The determination of effect on Traditional Cultural Properties (ethnographic resources eligible to be listed in the National Register) for §106 would be *no adverse effect*.

**Minor** – Adverse: impact(s) would be slight but noticeable but would neither appreciably alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group’s body of practices or beliefs. The determination of effect on Traditional Cultural Properties (ethnographic resources eligible to be listed in the National Register) for §106 would be *no adverse effect*. Beneficial: would allow access to and/or accommodate a group’s traditional practices or beliefs. The determination of effect on Traditional Cultural Properties for §106 would be *no adverse effect*.

**Moderate** – Adverse: impact(s) would be apparent and would alter resource conditions. Something would interfere with traditional access, site preservation, or the relationship between the resource and the affiliated group’s practices and beliefs, even though the group’s practices and beliefs would survive. The determination of effect on Traditional Cultural Properties (ethnographic resources eligible to be listed in the National Register) for §106 would be *adverse effect*. Beneficial: would facilitate traditional access and/or accommodate a group’s practices or beliefs. The determination of effect on Traditional Cultural Properties for §106 would be *no adverse effect*.

**Major** – Adverse: impact(s) would alter resource conditions. Something would block or greatly affect traditional access, site preservation, or the relationship between the resource and the affiliated group’s body of practices and beliefs, to the extent that the survival of a group’s practices and/or beliefs would be jeopardized. The determination of effect on Traditional Cultural Properties (ethnographic resources eligible to be listed in the National Register) for §106 would be *adverse effect*. Beneficial: would encourage traditional access and/or accommodate a group’s practices or beliefs. The determination of effect on Traditional Cultural Properties for §106 would be *no adverse effect*.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: Mountaintop sites are traditionally sacred places to Native Americans. In accordance with applicable federal laws and CBP policy, consultation with Tohono O’odham Nation was conducted. Lorraine Eiler, a Hia Ced O’odham elder indicated that the Agua Dulce

Mountains have no special cultural significance to the Hia-Ced O’odham. The Tohono O’odham Nation THPO had no objections to the placing of the TCNS in the Agua Dulce Mountains. The Tohono O’odham Nation THPO requested that a Cultural Specialist with the Tohono O’odham Nation THPO be present at the TCNS site location during installation.

Cumulative Impacts: No additional installations on other mountain peaks are anticipated. No cumulative impacts to ethnographic resources are expected for the proposed action.

Conclusion: The direct, long-term impact of the proposed action on ethnographic resources is its potential to impact structures with historical significance, ceremonial sites, traditional sacred places, and other places in the natural world.

***This alternative would have no adverse impacts on the ethnographic resources of the Agua Dulce Mountains. The Agua Dulce Mountains have no special cultural significance to the Hia-Ced O’odham. This alternative is not likely to impair CPNWR resources or values.***

#### *Effect of the No Action Alternative*

Direct/Indirect Impacts: The no action alternative would have no direct impact on the ethnographic quality of Agua Dulce Mountain.

Cumulative Impacts: No direct cumulative impacts would occur with this alternative. However, if the proposed action is not implemented, a new location for the TCNS would likely be evaluated. If the TCNS was placed on another peak in CPNWR or the surrounding area, the impact to ethnographic resources would be similar, depending on the site, to the impacts of the preferred alternative.

Conclusion: ***The no action alternative would have no adverse effect on the ethnographic resources of Agua Dulce Mountain. This alternative would not likely impair CPNWR resources and values.***

### **4.3.5 Wilderness Resources**

For the purpose of this analysis, intensity of impact, or threshold of change, to wilderness resources were defined as follows:

**Negligible** – A change in the wilderness character could occur, but it would be so small that it would not be of any measurable or perceptible consequence.

**Minor** – A change in the wilderness character and associated values could occur, but it would be small, and if measurable, would be highly localized.

**Moderate** – A change in the wilderness character and associated values would occur. It would be measurable, but localized.

**Major** – A noticeable change in the wilderness character and associated values would occur. It would be measureable, and would have a substantial or possibly permanent consequence.

### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: The Wilderness Act of 1964 defines a wilderness as “an area where the earth and its community of life are untrammelled by man, where man himself is a visitor and does not remain.” It is further defined as “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve the natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable, has outstanding opportunities for solitude or a primitive and unconfined type of recreation, and has at least five thousand acres of land or is sufficient in size to make practicable its preservation and use in an unimpaired condition.” The Wilderness Act, Section 4(c), prohibits permanent and temporary roads, use of motor vehicles, landing of aircraft, and structures or installations “*except as necessary to meet the minimum requirements for the administration of the area.*” The proposed action would place a man-made structure on the Agua Dulce Mountains, where no such intrusion has occurred before.

Cross border violator activities continues to occur on the CPNWR. The area south of the Agua Dulce Mountains, including its wilderness area, currently has no reliable communication tool to administer the area. A minimum requirement analysis was conducted for the proposed installation (Appendix G). The proposed installation would have a major, long-term beneficial impact on the wilderness resource by improving interagency coordination and USFWS operations that administer the natural resources of the wilderness area.

Cumulative Impacts: The proposed site is not expected to expand beyond the proposed impact area in the reasonably foreseeable future. In addition, the installation is temporary in nature, and could be removed if required.

Conclusion: The Wilderness Act allows the proposed installation if it is “necessary to meet the minimum requirements for the administration of the area.” A minimum requirements analysis determined this installation would significantly improve the administration and protection of the wilderness resources of the CPNWR by improving communications capabilities of CBP agents. The total area adversely impacted by the proposed installation is approximately 14,500 square feet. The proposed TCNS shelter and equipment are designed to minimize the impact of the installation as not to unduly inhibit the reclamation of the site when the proposed TCNS shelter is removed. In addition, according to USFWS Wilderness Stewardship Policy (USFWS, 2008) and CPNWR staff professional judgment, since the proposed TCNS installation has been determined to meet the minimum requirement for the administration of the wilderness area, the installation would be allowed without an adverse effect to wilderness character.

***The proposed installation would meet the minimum requirements for administration of the wilderness areas and therefore would be allowed in the area without adverse effect according to USFWS Wilderness Stewardship Policy. The proposed installation would have no adverse impact on the wilderness character on the Agua Dulce Mountains. In the context of CPNWR, the proposed action would have a major, long-term beneficial impact on the wilderness resource by improving interagency coordination and USFWS operations that administer the natural resources of the wilderness area. This alternative would likely not impair the resources of CPNWR.***

#### *Effect of the No Action Alternative*

Direct/Indirect Impacts: The no action alternative would maintain current communications limitations south of the Agua Dulce Mountains. This alternative would not require a facility within a wilderness area, thus would have no direct impact on wilderness resources.

Cumulative Impacts: No direct cumulative impacts on the Agua Dulce Mountains would occur with this alternative. However, limited to no communications would continue in the reasonably foreseeable future and would result in continues cross border violator impacts that would adversely affect wilderness resources. If the proposed action is not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the surrounding area, the effect on wilderness would be similar to the preferred alternative.

Conclusion: Natural and cultural resource damage that occurs due to illegal activities on the border would continue. The current limited communication capability would be maintained with this alternative and would inhibit the ability of CPNWR staff to effectively manage wilderness areas.

***This alternative has no adverse effect on the wilderness resources of the Agua Dulce Mountains. The limitation of current communications has a minor, adverse impact on wilderness resources of CPNWR. This alternative would not likely result in impairment of the wilderness resources and values in CPNWR.***

## **4.4 Biological Resources**

### **4.4.1 Vegetation**

For the purposes of this analysis, intensity of impact, or threshold of change, to vegetation resources were defined as follows:

**Negligible** – No native vegetation would be affected or some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be short-term, on a small scale, and no species of special concern would be affected.

**Minor** – The alternative would affect some individual native plants and would also affect a relatively minor portion of that species’ population. Mitigation to offset adverse effects, including special measures to avoid affecting species of concern, could be required and would be effective.

**Moderate** – The alternative would affect some individual native plants and would also affect a sizeable segment of the species’ population in the long-term and over a relatively large area. Mitigation, to offset adverse effects could be extensive, but would likely be successful. Some species of special concern could also be affected.

**Major** – The alternative would have a considerable long-term effect on native plant populations, including species of special concern, and affect a relatively large area in and out of the CPNWR. Mitigation measures to offset the adverse effects would be required, extensive, and success of the mitigation measures would not be guaranteed.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: The proposed site is an unimpaired, mountain peak dominated by short grasses and desert succulents such as cacti. The total area of impact is estimated at 14,500 square feet (0.33 acres). Direct impacts include trampling of the vegetation by foot traffic and the placement of the equipment. Some individuals would be impacted, but the population would not be affected.

In CPNWR, the proposed action would enhance interagency coordination essential to protection of natural resources from cross border violator impacts (i.e., trampling and clearing).

Cumulative Impacts: The direct impacts described above would continue to occur in the reasonable foreseeable future and result in a long-term, minor adverse effect on the vegetation resources on the proposed site.

Conclusion: The installation is designed to be minimal and temporary. Vegetation could be reestablished at the impacted areas when the installation is removed. Enhanced communications would improve response times to report resource damage and facilitate cooperation between CPNWR and CBP agents. Improved cooperation would likely result in more efficient monitoring of areas sensitive to damage inflicted by cross border violator activities.

***The proposed action would result in negligible, direct adverse impacts to the vegetation on the Agua Dulce Mountains. The proposed action would have a long-term minor, beneficial impact on vegetation resources in CPNWR by improving interagency coordination. This alternative is not likely to impair CPNWR vegetation resources or values.***

### *Effect of the No Action Alternative*

Direct/Indirect Impacts: This alternative would have no direct adverse effects to the vegetation on the Agua Dulce Mountains.

Cumulative Impacts: Without improvements to the communications capability of CBP, illegal activities that result in trampling and clearing of vegetation resources of CPNWR would continue in the reasonably foreseeable future. In addition, if the proposed action is not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the surrounding area, the effect on vegetation would be similar to the impacts of the preferred alternative.

Conclusion: The no action alternative would maintain current communication limitations in the area south of the Agua Dulce Mountains.

*No direct adverse impacts would occur to the vegetation on the Agua Dulce Mountains. In the CPNWR, the no action alternative would not improve interagency coordination essential to protection of natural resources from cross border violator activities. This alternative would not likely lead to impairment of CPNWR resources and values.*

#### **4.4.2 Wildlife**

For the purposes of this analysis, intensity of impact, or threshold of change, to wildlife resources were defined as follows:

**Negligible** – Wildlife and wildlife habitat would not be affected or the effects would be at or below the level of detection and the changes would be so slight, that they would not be of any measurable or perceptible consequence to the wildlife species' population.

**Minor** – Effects to wildlife and wildlife habitat would be detectable, although the effects would be localized, and would be small and of little consequence to the species' population. Mitigation measures, if needed to offset adverse effects, would be simple and successful.

**Moderate** – Effects to wildlife and wildlife habitat would be readily detectable, long-term and localized, with consequences at the population level. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.

**Major** – Effects to wildlife and wildlife habitat would be obvious, long-term, and would have substantial consequences to wildlife populations in the region. Extensive mitigation measures would be needed to offset any adverse effects and their success would not be guaranteed.

### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: The area to be impacted is relatively small compared to the remaining area of the Agua Dulce Mountains and similar surrounding available habitat. Helicopter visits would temporarily displace wildlife at the site. The proposed installation would result in negligible habitat modifications on the Agua Dulce Mountains.

Cross border violator activities continue to occur on the CPNWR. The preferred alternative would enhance interagency coordination, which would result in increased protection of the wildlife and habitat resources of CPNWR.

Cumulative Impacts: The proposed installation is not expected to expand in the reasonably foreseeable future. The result of annual maintenance trips would result in temporary disturbances to wildlife on the Agua Dulce Mountains. The beneficial effects of the proposed action as a result of improved CBP and CPNWR staff communications, on soils, vegetation, wilderness and wildlife have a cumulative beneficial effect on wildlife habitats in CPNWR.

Conclusion: The proposed action would have a negligible adverse impact on foraging and shelter areas for most wildlife. Enhanced communications would improve response times to reported resource damage and facilitate cooperation between CBP agents and CPNWR staff. Improved cooperation would likely result in more efficient monitoring of areas sensitive to damage inflicted by cross border violator activities.

***The adverse effect of the proposed action on wildlife resources at the CPNWR would be negligible during the implementation of the action and the subsequent maintenance activities. The improvement in CBP activities would have a moderate, long-term beneficial effect on wildlife habitat resources in CPNWR. This alternative would likely not impair CPNWR resources or values.***

### *Effect of the No Action Alternative*

Direct/Indirect Impacts: There are no direct impacts to wildlife resources with the no action alternative. Cross border violator impacts (i.e., habitat modifications from vegetation trampling) would continue.

Cumulative Impacts: The indirect impacts from cross border violator activities would continue on the reasonably foreseeable future. In addition, if the proposed action is not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the surrounding area, the effect on wildlife would be similar to the impacts of the preferred alternative.

Conclusion: ***No direct, adverse impacts to wildlife would occur with the no action alternative. The long-term, indirect effects of this alternative could result in habitat damage that would***

*have a minor, adverse effect on habitat and wildlife resources in CPNWR. This alternative would not likely result in impairment of CPNWR resources and values.*

#### **4.4.3 Threatened and Endangered Species and Species of Concern**

For the purposes of this analysis, intensity of impact, or threshold of change, to threatened and endangered species and species of concern resources were defined as follows:

**Negligible** – No listed species of concern is present; no impacts or impacts with only temporary effects are expected.

**Minor** – Listed species of concern may be present by only in low numbers. Habitat is not critical for survival; other habitat is available nearby. Occasional flight responses by animals are expected, but without interference with feeding, reproduction or other activities necessary for survival.

**Moderate** – Breeding listed species are present; listed species are present during particularly vulnerable life-stages such as migration or juvenile stages; mortality or interference with activities necessary for survival expected on an occasional basis, but not expected to threaten the continued existence of the listed species in the CPNWR.

**Major** – Breeding listed species are present in relatively high numbers, and/or listed species are present during particularly vulnerable life stages. Targeted habitat has a history of use by listed species during critical periods and is somewhat limited. Mortality or other effects are expected on a regular basis and could threaten continued survival of the species in the CPNWR. A taking under Section 7 of the Endangered Species Act could occur.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: A list of threatened and endangered species that may occur in the project area is included as Table 3.1. The federally listed threatened and endangered species that may potentially occur in the project area include the Jaguar (*Panthera onca*), Sonoran Pronghorn (*Antilocapra americana sonoriensis*), California Least Tern (*Sterna antillarum browni*), Yellow-billed Cuckoo (*Coccyzus americanus*), Northern Mexican Gartersnake (*Thamnophis eques megalops*), and Sonoyta Mud Turtle (*Kinosternon sonoriense longifemorale*). A species of concern, Graham's nipple cactus (*Mammillaria grahamii*) has the potential to occur in the project area.

The proposed site habitat parameters, such as vegetation community, soils, elevation and habitat features such as caves and crevices, are not suitable for listed threatened or endangered wildlife species with the exception of the Sonoran Pronghorn and Graham's nipple cactus.

The relatively small area of impact and the infrequency of helicopter use would have a negligible impact on the use of the area by the Sonoran Pronghorn, if it were present. If present,



the Graham's nipple cactus could be avoided. CPNWR staff recommends a preconstruction site walk by a qualified biologist prior to equipment deployment to determine the presence of Graham's nipple cactus.

Cross border violator activities continue on the CPNWR. The proposed alternative would enhance interagency coordination, which would result in increased protection of the wildlife and habitat resources of CPNWR. Enhanced communication could improve response times to reported resource damage and facilitate cooperation between resource managers and CBP agents. Improved cooperation would likely result in more efficient monitoring of areas sensitive to damage inflicted by illegal activities.

Cumulative Impacts: The habitat at the proposed site has not been modified in the past. The proposed installation is not expected to expand in the reasonably foreseeable future. No cumulative impacts would affect threatened and endangered species on the Agua Dulce Mountains. Cross border violator activities would continue in the reasonably foreseeable future.

Conclusion: Coordination with CPNWR staff concluded that other than the Sonoran Pronghorn and Graham's nipple cactus, other federally listed threatened and endangered species are not expected to be present on the project area. Given the short duration of the installation (one day) and one annual helicopter trip for maintenance, the Sonoran Pronghorn would not likely be adversely affected. Informal consultation with USFWS resulted in their concurrence that the proposed project may affect, but not adversely affect the endangered Sonoran pronghorn. CBP would conduct a pre-construction site walk to determine the presence of the Graham's nipple cactus. If present, helicopter landings and equipment placing would be sited to avoid Graham's nipple cactus locations.

***The proposed action would have a negligible adverse impact on threatened and endangered species and species of concern, if present. Due to enhanced CBP capabilities to deter cross border violator activities, this alternative would have a long-term moderate, beneficial effect on the threatened and endangered species and species of concern of CPNWR. This alternative is not likely to impair threatened and endangered and species of concern resources and values of CPNWR.***

#### *Effect of the No Action Alternative*

Direct/Indirect Impacts: There are no direct impacts to threatened and endangered species or species of concern resources with the no action alternative. Cross border violator impacts to CPNWR resources would continue.

Cumulative Impacts: Cross border violator activities would continue. No direct cumulative effect to the resources on the Agua Dulce Mountains would occur with this alternative. In addition, if the proposed action were not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the

surrounding area, the effect on threatened, endangered and species of concern would be similar to the impacts of the preferred alternative.

**Conclusion:** *No direct impacts to threatened and endangered species or species of concern would occur with the no action alternative. With the continued cross border violator impacts on the CPNWR border, the cumulative effects could result in a long-term, moderate, adverse effect on the wildlife resourced of CPNWR. This alternative would not likely impair the CPNWR resources and values.*

**Table 3.1 Threatened and Endangered Species and Species of Concern**

Name	Scientific Name	Status	Critical Habitat
<b>Mammals</b>			
Jaguar	<i>Panthera onca</i>	Endangered	Outside of critical habitat
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	Endangered	No Designated Critical Habitat
<b>Birds</b>			
California Least Tern	<i>Sterna antillarum browni</i>	Endangered	No Designated Critical Habitat
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened	Outside of Critical Habitat
<b>Reptiles</b>			
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	Threatened	Outside of Critical Habitat
Sonoyta Mud Turtle	<i>Kinosternon sonoriense longifemorale</i>	Endangered	Proposed - This unit consists of 12.28 ac (4.97 ha) in the Rio Sonoyta watershed of Organ Pipe Cactus National Monument. This unit is within the geographic area occupied by the subspecies at the time of listing and contains at least one of the physical or biological features essential to the conservation of the Sonoyta mud turtle. Project location is outside of proposed critical habitat.
<b>Plants</b>			
Graham's nipple cactus	<i>Mammillaria grahamii</i>	Species of Concern	No Designated Critical Habitat
<b>Critical Habitat</b>			
			No Critical Habitats at this location

## 4.5 Economic and Social Resources

### 4.5.1 Health and Safety

For the purposes of this analysis, intensity of impact, or threshold of change, to health and safety resources were defined as follows:

**Negligible** – The impact to visitor and employee/agent health and safety would not be measurable or perceptible.

**Minor** – The impact to visitor and employee/agent health and safety would be measurable or perceptible, but it would be limited to a relatively small number of visitors and employees/agents at localized areas.

**Moderate** – The impact to visitor and employee/agent health and safety would be sufficient to cause a change in the outcome of an incident in an area that currently does not have radio coverage.

**Major** – The impact to visitor and employee/agent health and safety would be substantial. The impact to visitor and employee/agent health and safety would be sufficient to cause a change in the outcome of an incident in any area of the CPNWR.

#### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: The improvement of communications would improve CBP response times and enhance the safety of visitors and employees/agents on the CPNWR area south of the Agua Dulce Mountains.

Cumulative Impacts: No cumulative impacts to health and safety are anticipated with this alternative.

Conclusion: CBP agents would be able to respond more efficiently and communicate between other CBP agents and the Ajo station. Improved communications would enhance situational awareness and significantly improve agent safety in the area south of the Agua Dulce Mountains. CBP agents would be able to respond more efficiently to various requests for emergency services, search and rescue, accidents and other types of visitor interactions where needed.

***The proposed TCNS would improve CBP response times; therefore it would have a minor beneficial effect on the area south of the Agua Dulce Mountains and a moderate, beneficial effect on the health and safety of CBP agents, CPNWR staff and visitors in areas south of the Agua Dulce Mountains. This alternative would not likely impair CPNWR resources and values.***

### *Effect of the No Action Alternative*

Direct/Indirect Impacts: Communications would continue to be limited to non-existent south of the Agua Dulce Mountains. Response to illegal activities and emergency situations by CBP agents would continue to be limited to the current communications capabilities.

Cumulative Impacts: There are no cumulative impacts to the health and safety of CBP agents, CPNWR staff and visitors from the no action alternative. In addition, if the proposed action were not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the surrounding area, the effect on health and safety would be similar to the impacts of the preferred alternative.

Conclusion: CBP operations, including response times, would be maintained at their current capability. The no action alternative is having an adverse effect on current CBP response times when radio calls cannot be made or received.

***This alternative would maintain current response capabilities and, therefore, would have a moderate effect on the health and safety of CBP agents, CPNWR staff and visitors in CPNWR. This alternative would not likely impair the resources and values of CPNWR.***

#### **4.5.2 Recreational Opportunities and Experience**

For the purpose of this analysis, intensity of impact, or threshold of change, to recreational opportunities and experience were defined as follows:

**Negligible** – Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.

**Minor** – Changes in visitor use and/or experience would be detectable, although the changes would be slight. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

**Moderate** – Changes in visitor use and/or experience would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.

**Major** – Changes in visitor use and/or experience would be readily apparent and have important long-term consequences. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

### *Effect of the Preferred Alternative*

Direct/Indirect Impacts: Recreational opportunities near the Agua Dulce Mountains include hiking and camping. However, there are no maintained trails to the peak. The installation occupies a small area relative to the remaining hiking areas on the Agua Dulce Mountains. No fences or obstructions would be installed and no areas on the Agua Dulce Mountains would have restricted access. The public would continue to have unrestricted recreational opportunities at the Agua Dulce Mountains.

Many people seek mountain peaks because of the lack of development and because of the expansive views. The proposed installation would be a man-made intrusion on a pristine mountain peak. The recreational experience of the peak would be impacted.

Enhanced communications would improve response times to reported damage and facilitate cooperation between CBP agents and CPNWR staff. Improved cooperation would likely result in more efficient monitoring of areas sensitive to damage inflicted by illegal activities. Overall, resource management facilitated by the proposed action would enhance the recreational experience of visitors in CPNWR.

Cumulative Impacts: The proposed site has been historically undeveloped. The proposed site is not expected to expand in the reasonably foreseeable future. No cumulative impacts would occur.

Conclusion: Although the proposed installation intrudes on the natural conditions of the peak, it is minimal in nature and designed to be temporary. The value of a recreational experience of a mountain top location is subjective and is based on an individual's values, which have no standard and are not readily quantifiable. While one individual may view the proposed installation as a major adverse effect, another individual may view the installation as a minor adverse effect.

***The presence of the proposed alternative on the Agua Dulce Mountains would have a long-term, moderate adverse effect on the recreational experience of the peak. Improved cooperation between CBP agents and CPNWR staff would likely result in more efficient monitoring of areas sensitive to damage inflicted by cross border violator activities, which would result in an indirect, minor beneficial effect of the recreational experience of CPNWR. This alternative is not likely to impair CPNWR resources and values.***

*Effect of the No Action Alternative*

Direct/Indirect Impacts: The no action alternative would maintain the undeveloped nature of the Agua Dulce Mountains. No direct or indirect impacts to the recreational experience of the mountain top site would occur.

Cumulative Impacts: No cumulative impacts to the recreational experience of the Agua Dulce Mountains would occur. The pristine nature of the mountaintop would be maintained. However,

cross border violator impacts in CPNWR would continue to occur and would likely degrade other areas in CPNWR that provide recreational experiences. Continued, cumulative cross border violator activities would result in long-term, minor, adverse effect.

In addition, if the proposed action were not implemented, a new location for the TCNS would likely be evaluated. If the proposed TCNS were placed on another peak in CPNWR or the surrounding area, the effect on recreational experience would be similar to the impacts of the preferred alternative.

***Conclusion: The no action alternative would have no direct or indirect adverse impacts to the recreational experience of the proposed site. There would be no cumulative impacts to the pristine nature of the Agua Dulce Mountains. However, minor adverse effects would occur to the recreational experience in CPNWR. This alternative would likely not impair CPNWR resources and values.***

## **5 Mitigation Measures**

It is CBP's policy to reduce impacts through a sequence of avoidance, minimization, mitigation, and compensation. This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. Aside from stated BMPs, there are no mitigation commitments associated with the Proposed Action.

Environmental design measures are presented for each resource category potentially affected. These are general mitigation measures; development of specific mitigation measures would be required for certain activities implemented under the proposed action. The specific mitigation measures would be coordinated through appropriate agencies and land managers or administrators, as required.

### **5.1 Project Planning/Design – General Construction**

CBP will site, design, and install equipment, to avoid or minimize habitat loss within or adjacent to the footprint.

CBP will ensure that all construction will follow DHS *Directive 025-01* for Sustainable Practices for Environmental, Energy, and Transportation Management.

CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for construction and maintenance.

### **5.2 General Construction Activities**

CBP will clearly demarcate project construction area perimeters with a representative from the land management agency. No disturbance outside that perimeter will be authorized.

CBP will minimize the number of trips to the TCNS location per day during construction to reduce the likelihood of disturbing or injuring animals in the area or disturbing their habitat.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP will notify USFWS and CPNWR two weeks before any project construction and maintenance activities begin and within one week after project construction and maintenance activities are completed.

### **5.3 Soils**

Areas with highly erodible soils will be given special consideration when designing the proposed action to ensure incorporation of various erosion control techniques, where possible, to decrease erosion. Site rehabilitation will include revegetating or the distribution of organic and geological materials (i.e., boulders and rocks) over the disturbed area to reduce erosion while allowing the area to naturally vegetate. Additionally, erosion control measures and appropriate BMPs will be implemented before, during, and after construction activities as appropriate.

CBP will place drip pans under parked equipment and containment zones when refueling vehicles or equipment.

### **5.4 Vegetation**

CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. CBP will limit the removal of trees, cacti, and brush to the smallest amount needed to meet the objectives of the project. If vegetation must be removed outside the permanent project footprint, allow natural regeneration of native plants by cutting vegetation with hand tools, mowing, trimming, or using other removal methods that allow root systems to remain intact.

CBP will document any establishment of non-native plants and will implement appropriate control measures.

CBP will remove invasive plants that appear on the TCNS site. Removal will be done in ways that eliminate the entire plant and remove all plant parts to a disposal area. Herbicides not toxic to listed species in the area can be used for non-native vegetation control.

Application of herbicides will follow Federal guidelines and be in accordance with label directions. Removal will be done in a manner that does not affect protected or sensitive species. Training to identify non-native invasive plants will be provided for CBP personnel or contractors as necessary.

CBP will avoid the spread of non-native plants by not using natural materials (e.g., straw) for on-site erosion control. If natural materials must be used, the natural material would be certified weed and weed-seed free. Herbicides not toxic to listed species that may be in the area can be used for non-native vegetation control. Application of herbicides will follow Federal guidelines and can be used in accordance with label directions.

### **5.5 Wildlife Resources**

The Migratory Bird Treaty Act (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting seasons (February 1 through September 15), surveys will be performed to identify active nests. All construction activities will be scheduled outside nesting seasons to the greatest extent practicable.



Antennas and other pole-like structures will be designed and constructed to discourage roosting and nesting by birds, particularly ravens or other raptors that may use the poles for hunting perches.

If rodent populations on the perimeter of the facility are to be controlled, CBP will not use rodenticides.

CBP will avoid placing riprap around TCNS equipment.

CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.

## **5.6 Protected Species**

CBP will minimize impacts on Sonoran pronghorn and their habitat by using flagging or temporary fencing to clearly demarcate project perimeters, including access roads, with the land management agency. CBP will not disturb soil or vegetation outside of that perimeter.

CBP will minimize impacts on listed species and their habitats by using areas already disturbed by past activities, or those that will be used later in the construction period, for staging, parking, laydown, and equipment storage. If site disturbance is unavoidable, minimize the area of disturbance by scheduling deliveries of materials and equipment to only those items needed for ongoing project implementation.

CBP will minimize impacts on listed species and their habitats by limiting grading or topsoil removal to areas where this activity is absolutely necessary for construction, staging, or maintenance activities.

CBP will avoid restricting water access by identifying and not creating barriers to natural water sources available to listed species.

### Sonoran Pronghorn/Desert Big Horn Sheep

CBP will provide for an on-site biological monitor to be present during work activities for all construction activities.

CBP will minimize to the greatest extent possible the number of TCNS sites in Sonoran pronghorn habitat, particularly in movement corridors and areas important to Sonoran pronghorn during the fawning season (March 15 to July 31) and to Desert Bighorn Sheep during the breeding season (September – November).

CBP will minimize the number of construction and maintenance trips to the TCNS location, particularly those in important Sonoran pronghorn and Desert Bighorn Sheep areas.

## **5.7 Water Resources**

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work shall cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within secondary containment areas consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of drainages.

CBP will avoid contaminating natural aquatic and wetland systems with runoff by limiting all equipment maintenance, staging, laydown, and dispensing of fuel, oil, etc., to designated upland areas.

CBP will avoid impacts on groundwater by obtaining treated water from outside the immediate area for construction use.

CBP storage tanks containing untreated water will be of a size that if a rainfall event were to occur, the tank (assuming open) would not be overtopped and cause a release of water into the adjacent drainages. Water storage on the project area will be in on-ground containers located on upland areas not in washes.

## **5.8 Cultural Resources**

CBP will demarcate the site boundaries of all previously recorded sites to ensure that they are avoided.

Should any archeological artifacts be found during construction, CBP will notify the appropriate land management archaeologist immediately. All work will cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

## **5.9 Air Quality**

Mitigation measures will be incorporated to ensure that fugitive dust and other air quality constituents emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1). Standard construction BMPs such as routine watering of the construction site will be used to control fugitive dust and thereby assist in limiting potential PM-10 excursions during the construction phase of the proposed action.

Additionally, all construction equipment and vehicles will be required to be maintained in good operating condition to minimize exhaust emissions.

## **5.10 Noise**

During the construction phase, short-term noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities would be restricted to daylight hours to the greatest extent practicable. Construction equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts on an insignificant level.

## **5.11 Hazardous Materials**

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock, etc.) will be used to absorb and contain the spill.

CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste until removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.

Minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste manifesting procedures.

## 6 References

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- USFWS. (August 2020). *Minimum Requirements Analysis, Tactical Communications Network System (TCNS) Agua Dulce Mountains Cabeza Prieta National Wildlife Refuge.*

## 7 Persons and Organizations Contacted

Sid Slone  
Manager  
Cabeza Prieta National Wildlife Refuge  
1611 North Second Avenue  
Ajo, AZ 85321

The Honorable Ned Norris  
Chairman  
Tohono O'odham Nation  
P.O. Box 837  
Sells, AZ 85634

Lorraine Eiler  
Elder  
a Hia Ced O'odham

Jeff Humphrey  
Field Supervisor  
United States Fish and Wildlife Service  
Arizona Ecological Services  
9828 North 31st Avenue #C3  
Phoenix, AZ 85051-2517

Mike Sumner  
Arizona Game and Fish Department, Region 4  
9140 E. 28<sup>th</sup> St.  
Yuma, AZ 85365

## 8 Acronyms and Abbreviations

AOR	Area of Responsibility
ARPA	Archeological Resources Protection Act
BMP	Best Management Practice
CBP	Customs and Border Protection
CBV	Cross-Border Violator
CCP	Comprehensive Conservation Plan
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPNWR	Cabeza Prieta National Wildlife Refuge
CSP	Concentrated Solar Power
DHS	Department of Homeland Security
E	Endangered
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FR	Federal Register
iPAC	Information for Planning and Consultation
MOA	Memorandum of Agreement
MRA	Minimum Requirement Analysis
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
P.L.	Public Law
PV	Photovoltaic
T	Threatened
TCNS	Tactical Communications Network System
USBP	United States Border Patrol
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service

## 9 List of Preparers

<b>Name</b>	<b>Agency/ Organization</b>	<b>Discipline/ Expertise</b>	<b>Experience</b>	<b>Role in Preparing PEA</b>
David Walls	LMI Government Consulting	Senior Environmental Scientist	40 years of NEPA and environmental programs	Environmental analysis and technical writing
Margaret Rockwell	LMI Government Consulting	Environmental Planning Specialist	30 years of environmental related experience	Research, impact analysis, technical writing
Ashley Rivero	LMI Government Consulting	Environmental Planning Specialist	5 years of environmental science and regulatory compliance	Technical review and editing
Jennifer Brown	LMI Government Consulting	Environmental Planning Specialist	2 years of environmental related experience	Technical review and editing
Paul Schmidt	Customs and Border Protection	Environmental Resources Planner	25 years in environmental planning	Research, technical review and editing



## 10 Distribution List

Sid Slone  
Manager  
Cabeza Prieta National Wildlife Refuge  
1611 North Second Avenue  
Ajo, AZ 85321

Sandy Bahr  
Chapter Director  
Sierra Club Grand Canyon, AZ Chapter  
514 West Roosevelt Street  
Phoenix, Arizona 85003

Rob Peters  
Senior Representative, Arizona  
Defenders of Wildlife, Southwest  
210 Montezuma Avenue, Suite 210  
Santa Fe, New Mexico 87501

Roger McManus  
Chairman of the Board  
Friends of the Sonoran Desert  
PO Box 25592  
Tempe, Arizona 85285

Pat Headington  
President  
Yuma Valley Rod and Gun Club  
2575 South Virginia Drive  
Yuma, Arizona 86364

Mike Quigley  
Arizona State Director  
The Wilderness Society  
PO Box 18404  
Tucson, Arizona 85731

Lorraine Eiler  
Hia C'ed O'odham Representative  
Tohono O'Odham Nation

Katrina Pappas  
Office Coordinator  
Arizona Wilderness Coalition  
PO Box 40340  
Tucson, Arizona 85717

Jonathan Lutz  
Executive Director  
Tucson Audubon Society  
300 E. University Blvd  
Tucson, Arizona 85705

Glen Dickens  
VP of Conservation  
Arizona Wildlife Federation  
PO Box 1182  
Mesa, Arizona 85211

Dan Millis  
Borderlands Campaign Coordinator  
Sierra Club

Cyndi Tuell  
Arizona and New Mexico Director  
Western Watersheds Project

Bill Broyles

Blaine Dominy  
President Arizona Desert Bighorn Sheep Society, Inc.  
PO Box 21705  
Mesa, Arizona 85277

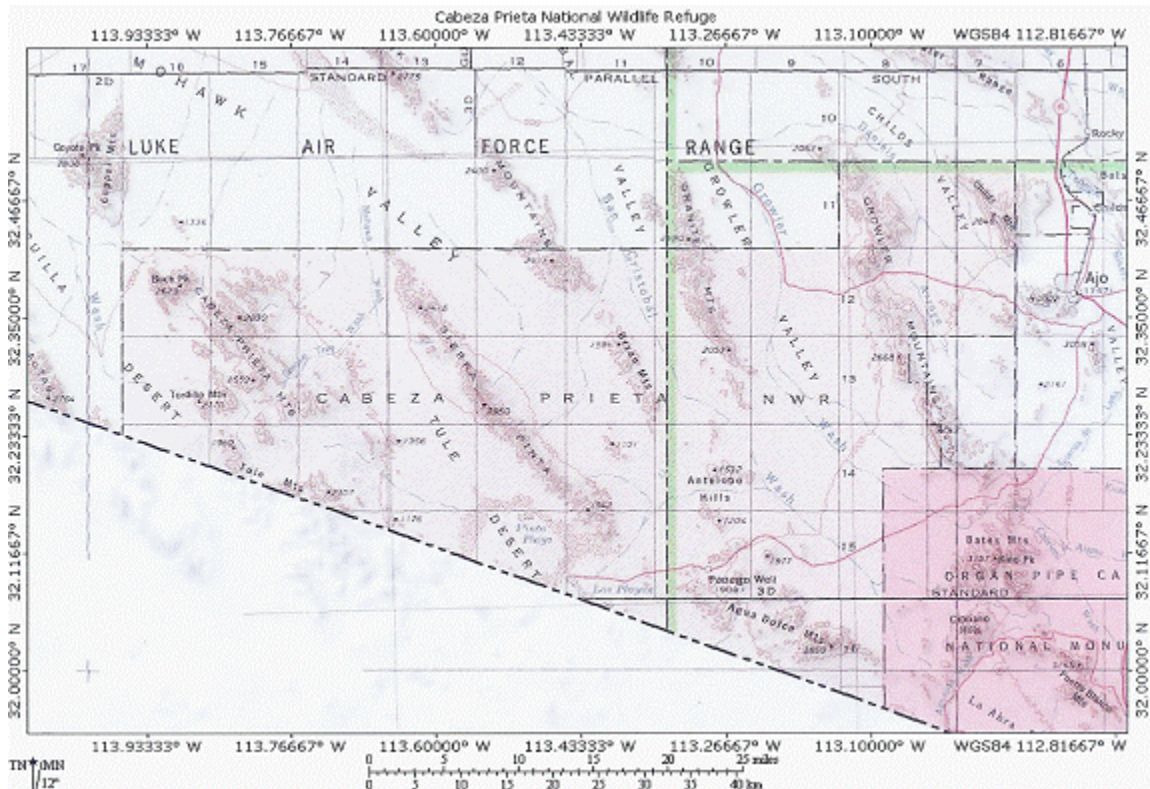
Aaron Cooper  
Director  
International Sonoran Desert Alliance  
PO Box 25592  
Tempe, Arizona 85285

Dinah Bear  
Board Member  
Humane Borders  
300 N. Indian House Road  
Tucson, Arizona 85711

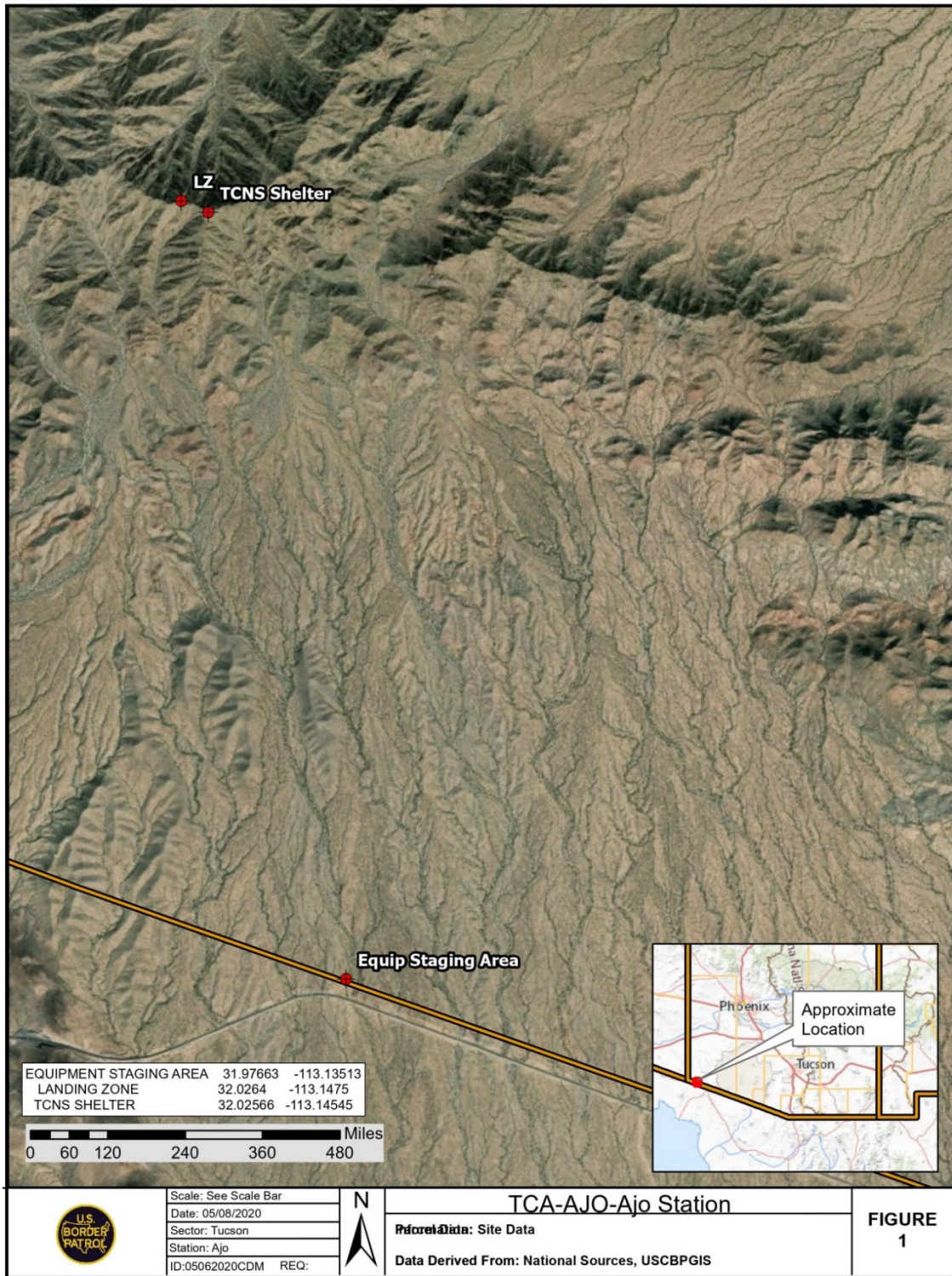
Ken Meadows  
President  
Arizona Antelope Foundation  
PO Box 19420  
Fountain Hills, Arizona 85269

Kieran Suckling  
Executive Director  
Center for Biological Diversity  
PO Box 710  
Tucson, Arizona 85702

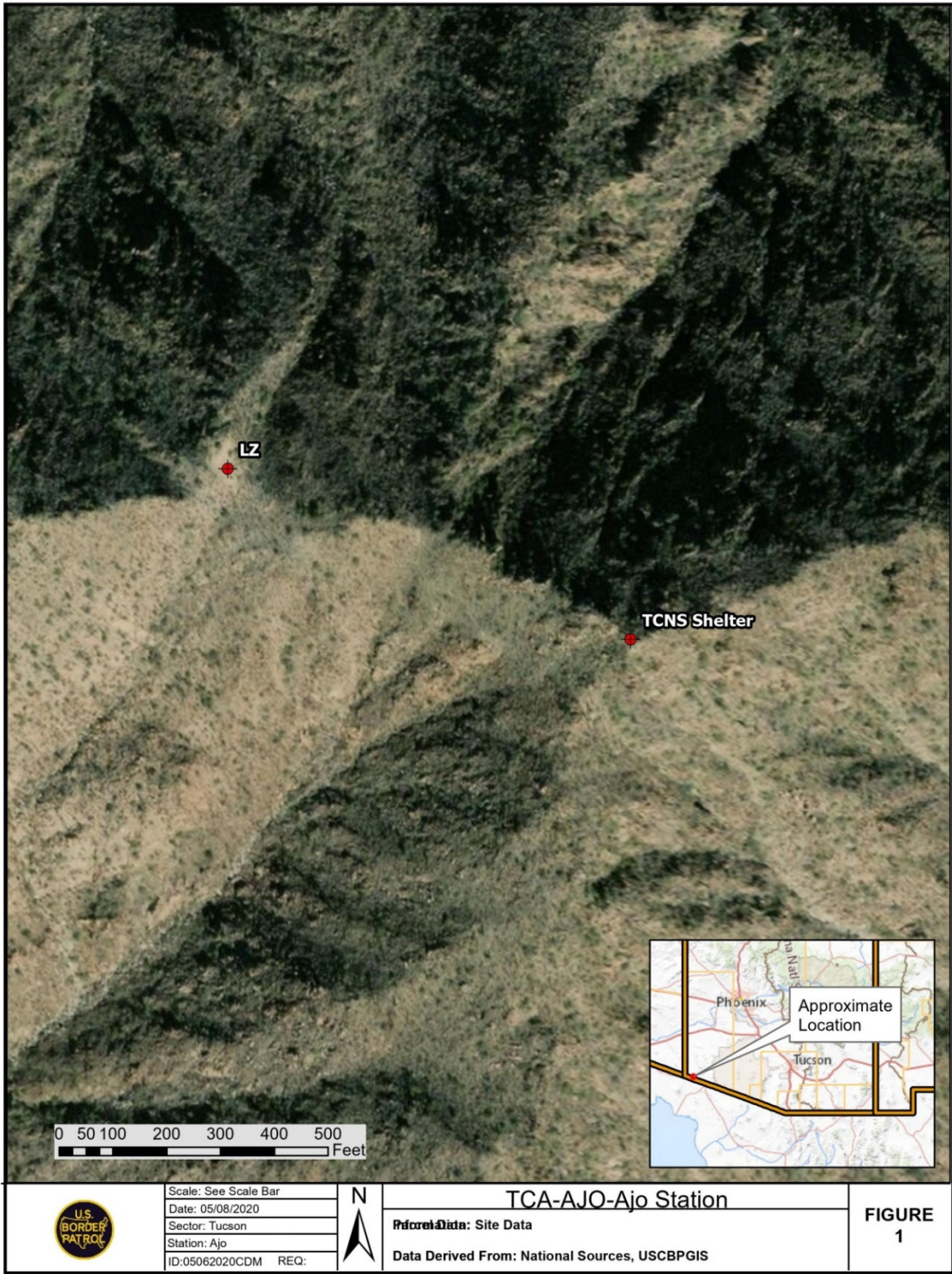
# Appendix A: Figures



**Figure 1. Western Pima County, Arizona, including the Cabeza Prieta National Wildlife Refuge**



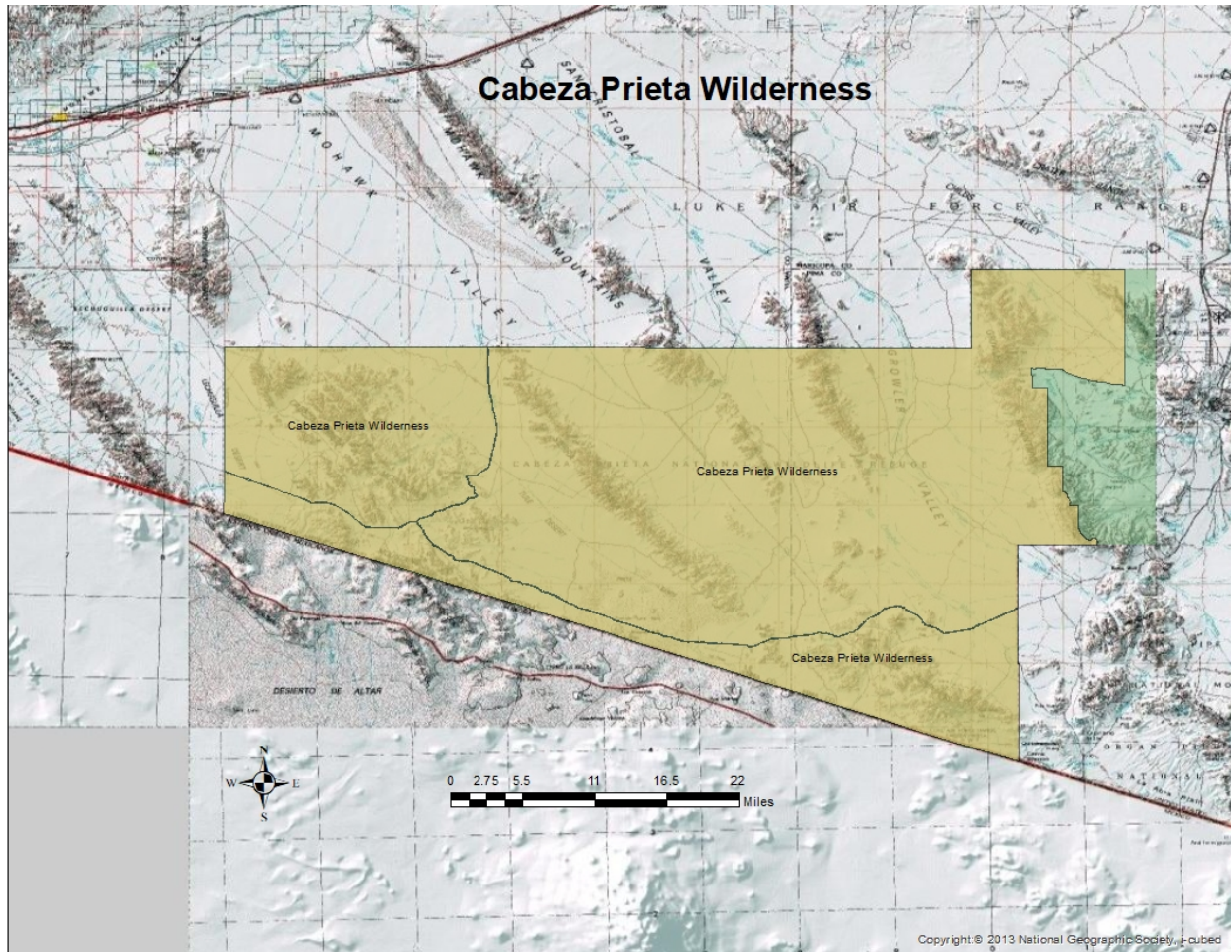
**Figure 2. TCNS Site/LZ and Staging Areas**



**Figure 3. TCNS and LZ Locations**

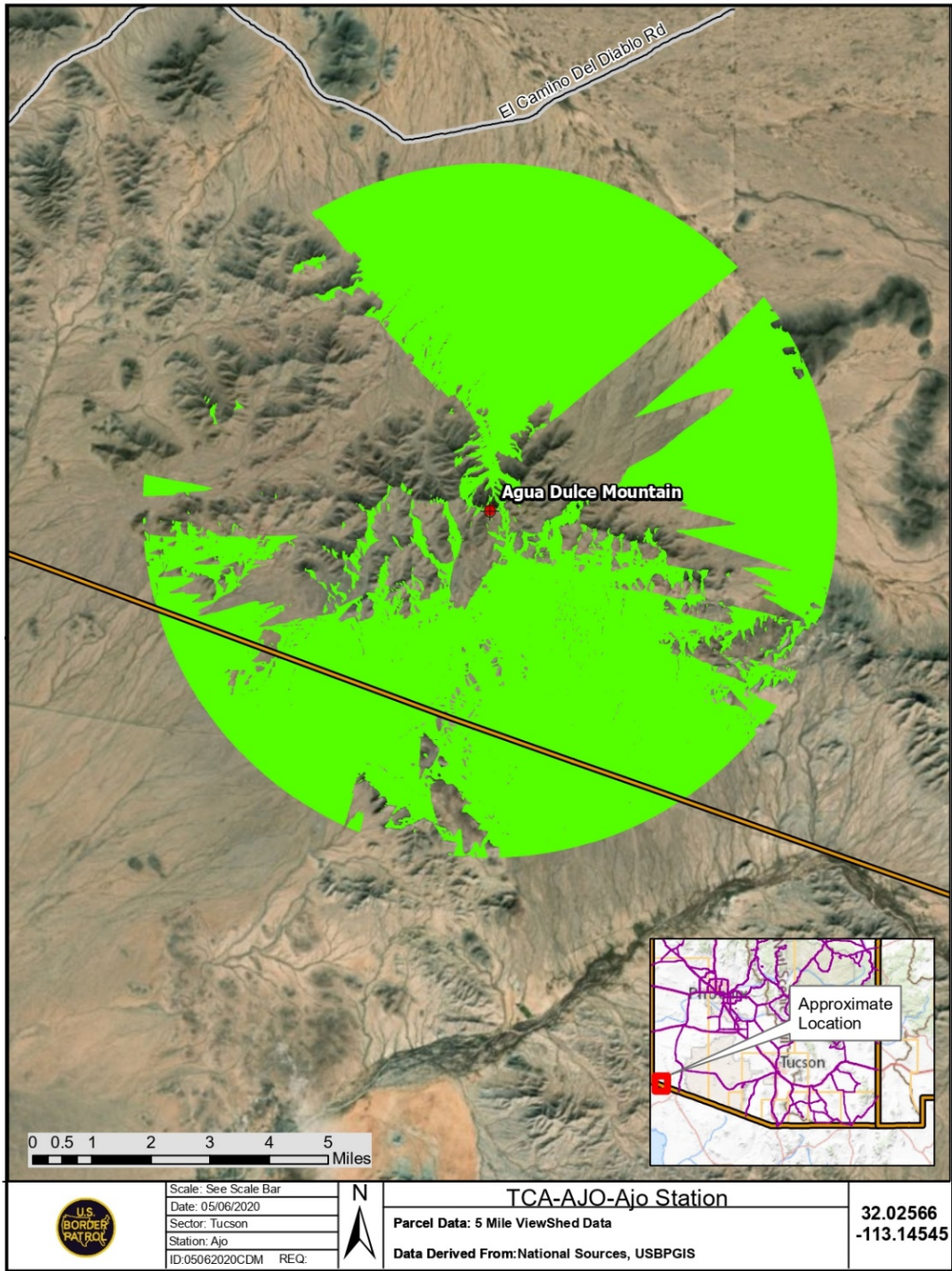


**Figure 4. Proposed TCNS Shelter**



**Figure 5. Cabeza Prieta Wilderness**





**Figure 6. TCNS Line of Site Analysis (5-Mile Radius)**

## Appendix B: Tables

**Table 1. Endangered Species**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Endangered or Threatened</b>
Jaguar	<i>Panthera onca</i>	Endangered
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	Endangered
California Least Tern	<i>Sterna antillarum browni</i>	Endangered
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	Threatened
Sonoyta Mud Turtle	<i>Kinosternon sonoriense longifemorale</i>	Endangered

Source: US Fish and Wildlife Service: Information for Planning and Consulting (<https://ecos.fws.gov/ipac/>)

## Appendix C: Notice of Availability

### *Newspaper Notification*

U.S. Customs and Border Protection (CBP) announces the availability of the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Tactical Communications Network System, Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Ajo, Arizona. CBP has prepared a Draft EA and FONSI to identify and assess the potential environmental and socioeconomic impacts associated with the deployment, operation, and maintenance of the Tactical Communications Network System (TCNS) at a location in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona. CBP invites comments on the Draft EA and FONSI during the 30-day comment period beginning on March 1, 2021. The Draft Environmental Assessment can be access at the following website: <https://www.cbp.gov/about/environmental-management-sustainability/documents/docs-review> Comments may be submitted using one of the following methods:

1. By email to [TucsonComments@cbp.dhs.gov](mailto:TucsonComments@cbp.dhs.gov) subject line should read Draft EA TCNS Agua Dulce Mountains
2. By mail to Paul Enriquez, Director, Acquisitions, Real Estate and Environmental, Office, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229

To ensure consideration, comments must be received by March 31, 2021.



U.S. Customs and  
Border Protection

February 8, 2021

Sid Slone  
Refuge Manager  
Cabeza Prieta National Wildlife Refuge  
1611 N. 2<sup>nd</sup> Ave  
Ajo, Arizona 85321  
Sent via email to: [sid\\_slone@fws.gov](mailto:sid_slone@fws.gov)

SUBJECT: Draft Environmental Assessment for Tactical Communications Network System,  
Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Pima County,  
Arizona

Dear Mr. Slone:

U.S. Customs and Border Protection (CBP) announces the availability of the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) addressing the proposed deployment, operation, and maintenance of the Tactical Communications Network System (TCNS) at a location in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona. The Draft EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 as amended (42 U.S. Code 4321, et seq), the Council on Environmental Quality's NEPA implementing regulations (40 Code of Federal Regulations Part 1500 et seq.), DHS Directive Number 023-01, Rev 01, and DHS Instruction Manual 023-01-001-01, *Implementation of the National Environmental Policy Act*.

The Proposed Action consists of the installation of one solar-powered communications shelter (TCNS) in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge. The TCNS would consist of a 3-foot x 7-foot shelter, communications equipment, communication antennae, and two solar panels. The proposed action includes the installation of communications equipment where no previous intrusion has occurred. The TCNS is minimal in nature, the equipment would be painted to blend with the background and minimize glare. No lights would be attached to the antennas or shelter.

CBP invites comments on the Draft EA and FONSI during the 30-day comment period beginning on March 1, 2021. The Draft Environmental Assessment can be accessed at the following website: <https://www.cbp.gov/about/environmental-management-sustainability/documents/docs-review> Comments may be submitted using one of the following methods:

1. By email to [TucsonComments@cbp.dhs.gov](mailto:TucsonComments@cbp.dhs.gov) subject line should read Draft EA TCNS Agua Dulce Mountains

Mr. Sid Slone, Cabeza Prieta National Wildlife Refuge

Page 2

2. By mail to Paul Enriquez, Director, Acquisitions, Real Estate and Environmental, Office, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229

To ensure consideration, comments must be received by March 31, 2021.

If you require additional information or have questions, please contact Mr. David Walls by telephone at 571-230-4476 or by e-mail [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov)



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

*Similar notification letters were sent to individuals and organizations identified in Section 10:  
Distribution List.*

# Appendix D: Correspondence



U.S. Customs and  
Border Protection

September 25, 2020

Kathryn Leonard  
State Historic Preservation Officer  
Arizona State Historic Preservation Office  
1100 W. Washington St.  
Phoenix, AZ 85007

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Ms. Leonard:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Arizona Historic Commission pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they



Kathryn Leonard, SHPO

Page 2

are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. The Tohono O'odham Nation THPO had no objections to the deployment of the TCNS in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



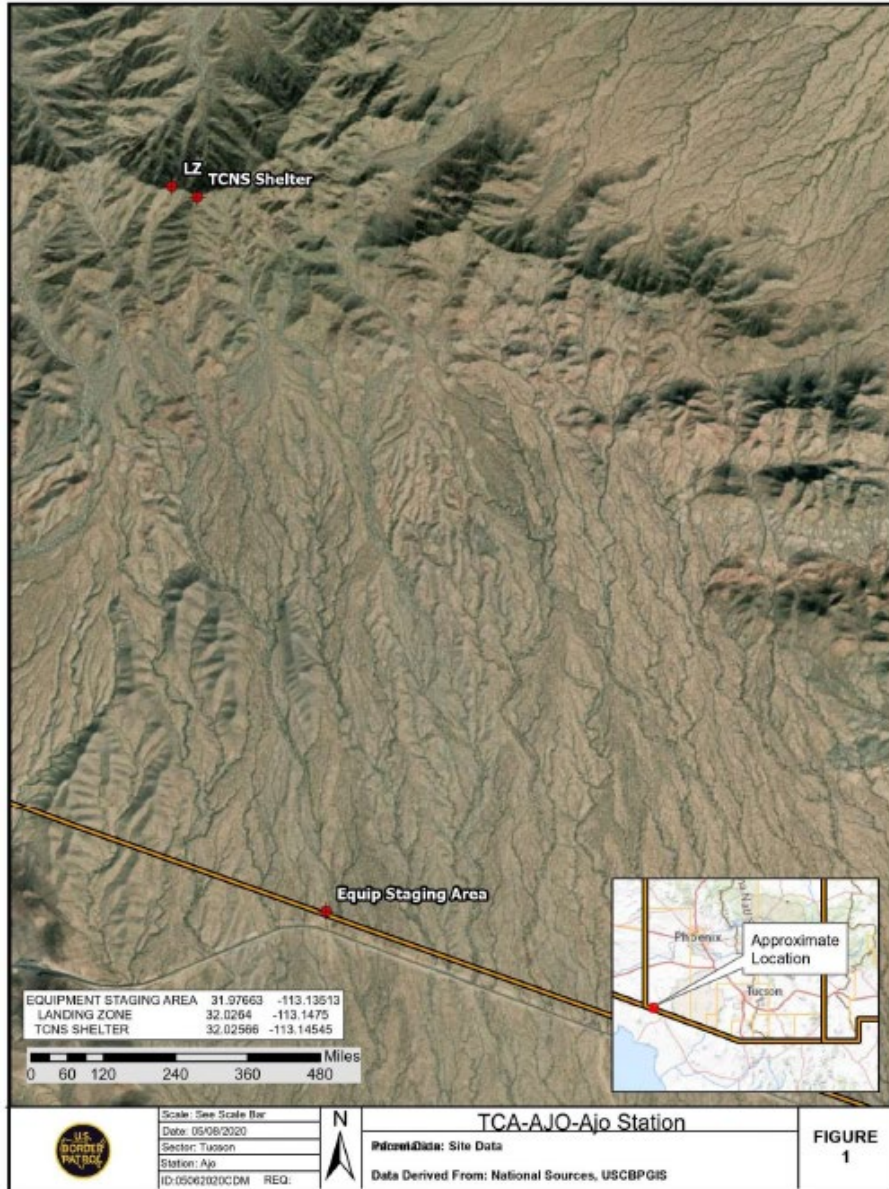
Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

**Enclosures:**

- Enclosure 1 Representative Photograph of TCNS Shelter
- Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter
- Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top
- Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top
- Enclosure 5 Response from Peter Steere, Tohono O'odham THPO



Enclosure 1: Representative Photographic of TCNS Shelter



Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top

**From:** Peter Steere <[Peter.Steere@tonation-nsn.gov](mailto:Peter.Steere@tonation-nsn.gov)>  
**Sent:** Tuesday, August 25, 2020 6:26 PM  
**To:** CASTILLO, RAFAEL M <[RAFAEL\\_M.CASTILLO@cbp.dhs.gov](mailto:RAFAEL_M.CASTILLO@cbp.dhs.gov)>  
**Cc:** ENRIQUEZ, PAUL <[paul.enriquez@cbp.dhs.gov](mailto:paul.enriquez@cbp.dhs.gov)>; Ned Norris Jr. <[Ned.NorrisJr@tonation-nsn.gov](mailto:Ned.NorrisJr@tonation-nsn.gov)>;  
Jesse Navarro <[Jesse.Navarro@tonation-nsn.gov](mailto:Jesse.Navarro@tonation-nsn.gov)>; Samuel Fayuant <[Samuel.Fayuant@tonation-nsn.gov](mailto:Samuel.Fayuant@tonation-nsn.gov)>; Slone, Sid <[sid\\_slone@fws.gov](mailto:sid_slone@fws.gov)>  
**Subject:** Radio Repeater in Agua Dulce Mountains - Cabeza Prieta National Wildlife Refuge

**CAUTION:** This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Contact the [CBP Security Operations Center](#) with questions or concerns.

MEMORNDUM

**DATE:** August 25, 2020  
**TO:** Rafael Castillo, CBP  
**CC:** Paul Enriquez, CBP  
Ned Norris, Jr. Chairman, Tohono O'odham Nation  
Jesse Navarro, Chairman's Staff  
Sid Slone, Manager, Cabeza Prieta National Wildlife Refuge  
Samuel Fayant, Tohono O'odham THPO  
**FROM:** Peter L. Steere, THPO, Tohono O'odham Nation  
**RE:** Placement of Radio Repeater in Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge

---

Thank you for consulting with the Tohono O'odham Nation on this proposed project in the Agua Dulce Mountains.

The Tohono O'odham Nation had two concerns regarding this project.

1. Is it appropriate to place this radio repeater in the Agua Dulce Mountains which are located in a designated wilderness area
2. Does this mountain top in the Agua Dulce Mountains have any cultural significance to the Hia-Ced O'odham.

The Manager of the Cabeza Prieta National Wildlife Refuge, Sid Slone has no objections to placing this radio repeater in the Agua Dulce Mountains.

Lorraine Eiler, a Hia Ced O'odham elder has indicated that the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham.

Enclosure 5 Response from Peter Steere, Tohono O'odham THPO

**From:** Slone, Sid <sid\_slone@fws.gov>  
**Sent:** Wednesday, April 15, 2020 6:19 PM  
**To:** WALLS, DAVID (CTR) <david.walls@associates.cbp.dhs.gov>  
**Cc:** RIVERO, ASHLEY (CTR) <ashley.rivero@associates.cbp.dhs.gov>  
**Subject:** RE: [EXTERNAL] Cultural Resources Review/ CBP Request to Deploy TCNS Shelter Agua Dulce Mountains

Hi Dave,  
The Cabeza Prieta National Wildlife Refuge is unaware of any historical properties that could be affected by the proposed radio site. The Agua Dulce Spring in the Agua Dulce mountains should be avoided. I recommend that you have an archaeologist on site during the project to ensure that no cultural resources are impacted. This includes someone at the installation site that can ensure any historic or cultural sites are avoided when setting down and installing the equipment. I'm still looking for an adequate map to get to you.

Regards

Sid

**From:** WALLS, DAVID (CTR) <david.walls@associates.cbp.dhs.gov>  
**Sent:** Friday, April 10, 2020 12:33 PM  
**To:** Slone, Sid <sid\_slone@fws.gov>  
**Cc:** RIVERO, ASHLEY (CTR) <ashley.rivero@associates.cbp.dhs.gov>  
**Subject:** [EXTERNAL] Cultural Resources Review/ CBP Request to Deploy TCNS Shelter Agua Dulce Mountains

Sid,  
I'm following up on our status for the request to deploy a TCNS shelter to Agua Dulce Mountain.

The attached email is the initial review by our staff on potential Section 106 issues.

While we did not identify anything of concern for the 3 sites (landing zone, TCNS site and staging area), we want ensure that your staff does not have any HP concerns. The Equipment Staging Area could be of possible concern as there are surface and shall sites in this area.

Please let me know if we need to conduct and further analysis or if there are no concerns. If there are no concerns, we should be able to clear the 106 review via the Southwest Border Programmatic Agreement.

Regards,  
Dave

Dave Walls MNR, PMP, REM  
Contractor – LMI  
Sr. Environmental Specialist  
DHS/CBP/USBP/PMOD  
Mobile (571) 230-4476  
CBP Email: david.walls@associates.cbp.dhs.gov  
Contractor Email: dwalls@lmi.org



U.S. Customs and  
Border Protection

September 25, 2020

Kathryn Leonard  
State Historic Preservation Officer  
Arizona State Historic Preservation Office  
1100 W. Washington St.  
Phoenix, AZ 85007

SHPO-2020-1299(155880)  
Received 9/24/2020

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Ms. Leonard:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Arizona Historic Commission pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they



Kathryn Leonard, SHPO

Page 2

are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. The Tohono O'odham Nation THPO had no objections to the deployment of the TCNS in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

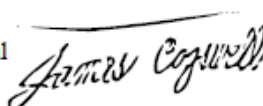
Respectfully,

**Thank you for adding comments from the To'Odham Nation!**

**Concur,**



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol



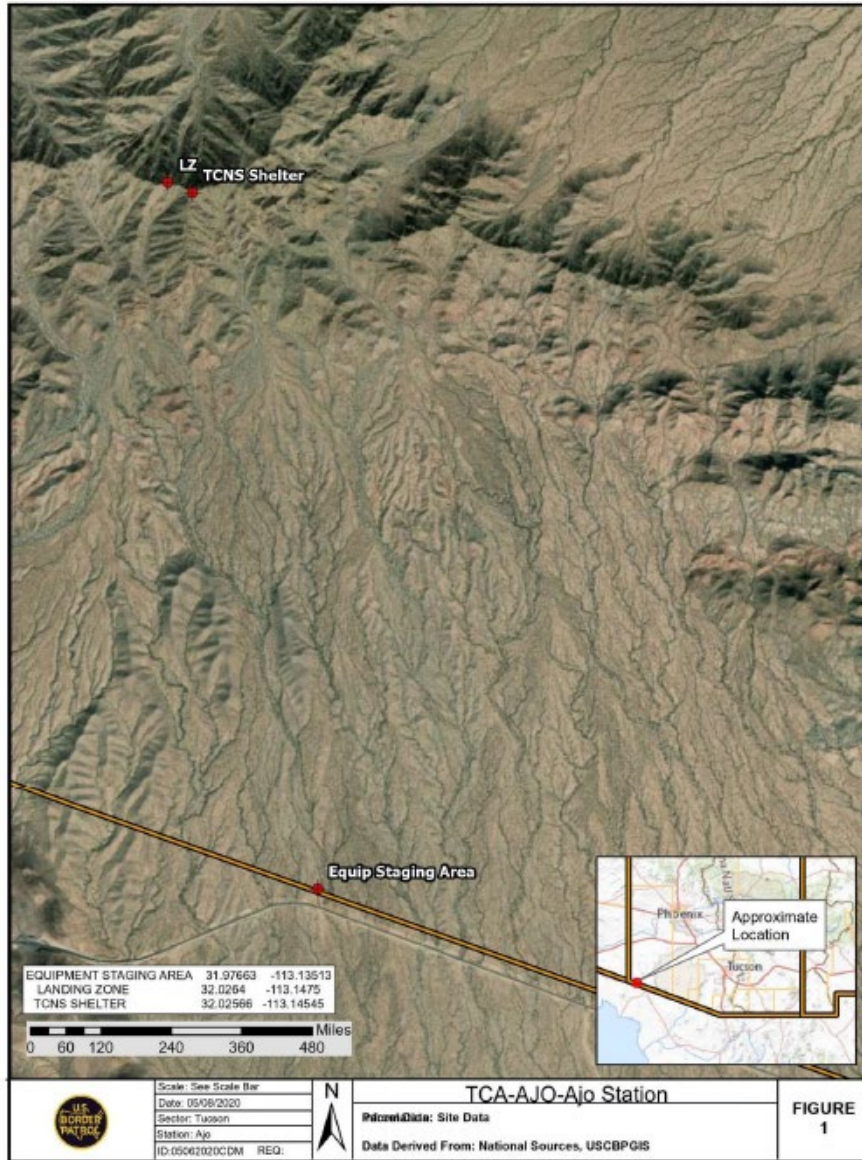
09/29/2020

Enclosures:

- Enclosure 1 Representative Photograph of TCNS Shelter
- Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter
- Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top
- Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top
- Enclosure 5 Response from Peter Steere, Tohono O'odham THPO



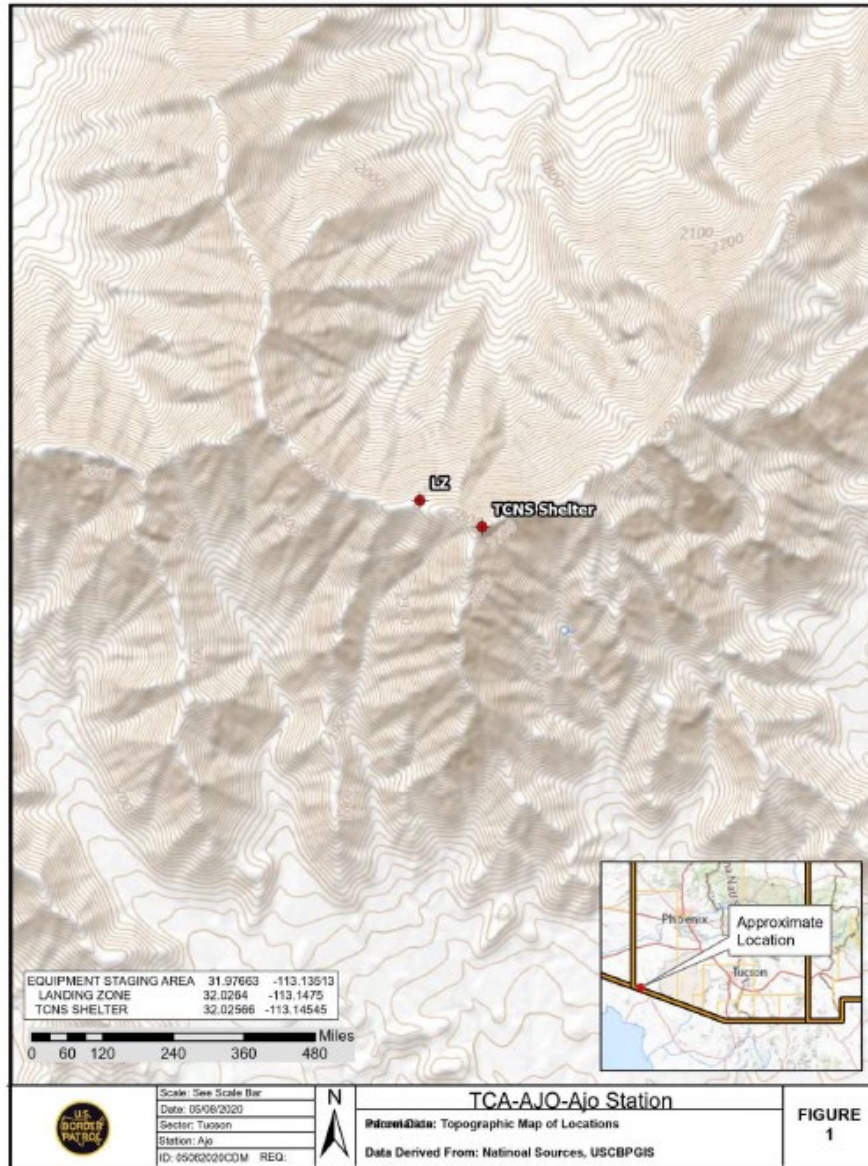
Enclosure 1: Representative Photographic of TCNS Shelter



Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top

**From:** Peter Steere <Peter.Steere@tonation-nsn.gov>  
**Sent:** Tuesday, August 25, 2020 6:26 PM  
**To:** CASTILLO, RAFAEL M <RAFAEL.M.CASTILLO@cbp.dhs.gov>  
**Cc:** ENRIQUEZ, PAUL <paul.enriquez@cbp.dhs.gov>; Ned Norris Jr. <Ned.Norrisjr@tonation-nsn.gov>; Jesse Navarro <Jesse.Navarro@tonation-nsn.gov>; Samuel Fayuant <Samuel.Fayuant@tonation-nsn.gov>; Slone, Sid <sid\_slone@fws.gov>  
**Subject:** Radio Repeater in Agua Dulce Mountains - Cabeza Prieta National Wildlife Refuge

**CAUTION:** This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Contact the [CBP Security Operations Center](#) with questions or concerns.

MEMORNDUM

**DATE:** August 25, 2020  
**TO:** Rafael Castillo, CBP  
**CC:** Paul Enriquez, CBP  
Ned Norris, Jr. Chairman, Tohono O'odham Nation  
Jesse Navarro, Chairman's Staff  
Sid Slone, Manager, Cabeza Prieta National Wildlife Refuge  
Samuel Fayant, Tohono O'odham THPO  
**FROM:** Peter L. Steere, THPO, Tohono O'odham Nation  
**RE:** Placement of Radio Repeater in Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge

---

Thank you for consulting with the Tohono O'odham Nation on this proposed project in the Agua Dulce Mountains.

The Tohono O'odham Nation had two concerns regarding this project.

1. Is it appropriate to place this radio repeater in the Agua Dulce Mountains which are located in a designated wilderness area
2. Does this mountain top in the Agua Dulce Mountains have any cultural significance to the Hia-Ced O'odham.

The Manager of the Cabeza Prieta National Wildlife Refuge, Sid Slone has no objections to placing this radio repeater in the Agua Dulce Mountains.

Lorraine Eiler, a Hia Ced O'odham elder has indicated that the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham.

Enclosure 5 Response from Peter Steere, Tohono O'odham THPO

Kathryn Leonard, SHPO  
Page 8

Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

The Tohono O'odham Nation THPO requests to be notified when the helicopter placement of this radio repeater is scheduled.

We request that Samuel Fayant, Cultural Specialist with the Tohono O'odham Nation THPO be permitted travel in the helicopter to the top of the mountain when the radio repeater is placed.

Enclosure 5 Response from Peter Steere, Tohono O'odham THPO

Kathryn Leonard, SHPO  
Page 8

Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

The Tohono O'odham Nation THPO requests to be notified when the helicopter placement of this radio repeater is scheduled.

We request that Samuel Fayant, Cultural Specialist with the Tohono O'odham Nation THPO be permitted travel in the helicopter to the top of the mountain when the radio repeater is placed.

Enclosure 5 Response from Peter Steere, Tohono O'odham THPO





**U.S. Customs and  
Border Protection**

May 26, 2020

The Honorable Ned Norris  
Chairman  
Tohono O'odham Nation  
P.O. Box 837  
Sells, AZ 85634

**SUBJECT:** Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairman Norris:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Tohono O'odham Nation pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

**Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

**Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

**Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging

The Honorable Ned Norris  
Chairman  
Page 2

area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they are unaware of any historic or cultural resources or archaeological artifacts in this area.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Nation are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

Enclosures:

- Enclosure 1 Representative Photograph of TCNS Shelter
- Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter

The Honorable Ned Norris  
Chairman

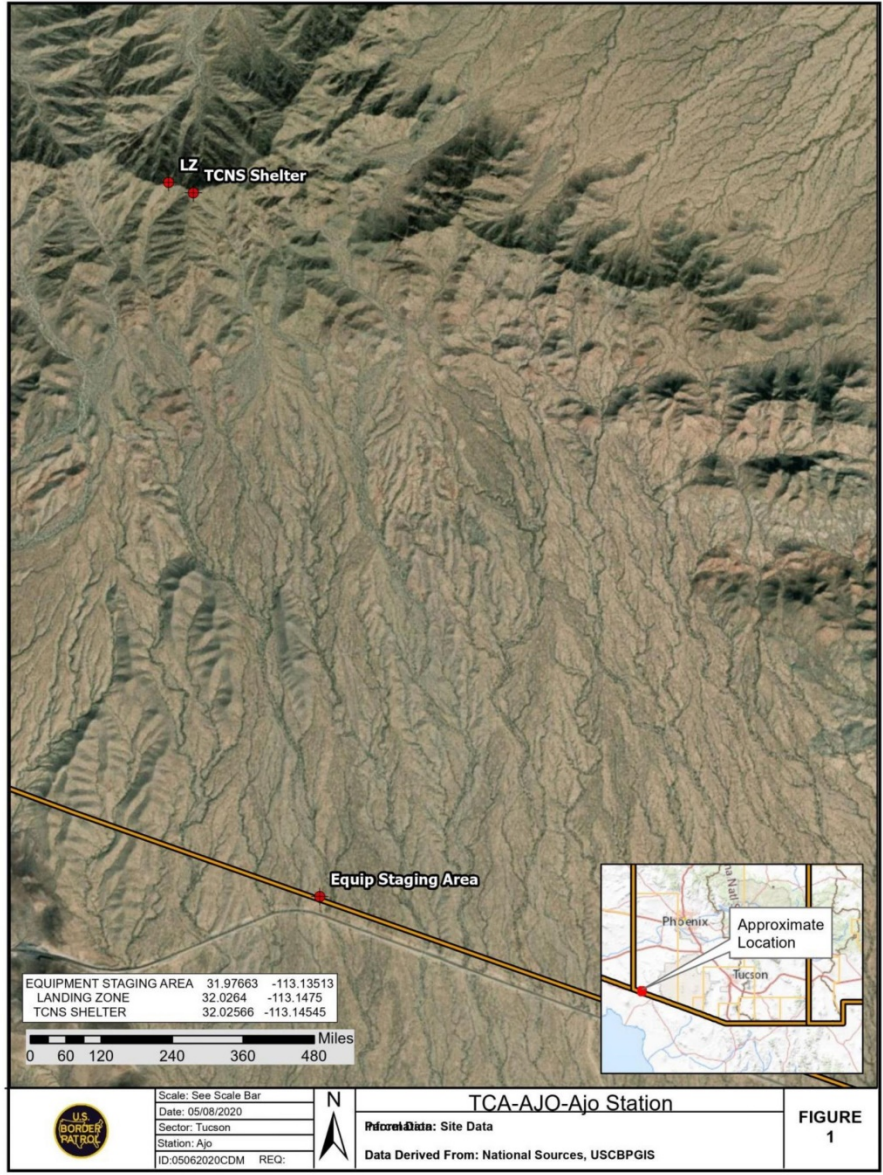
Page 3

Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top

Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



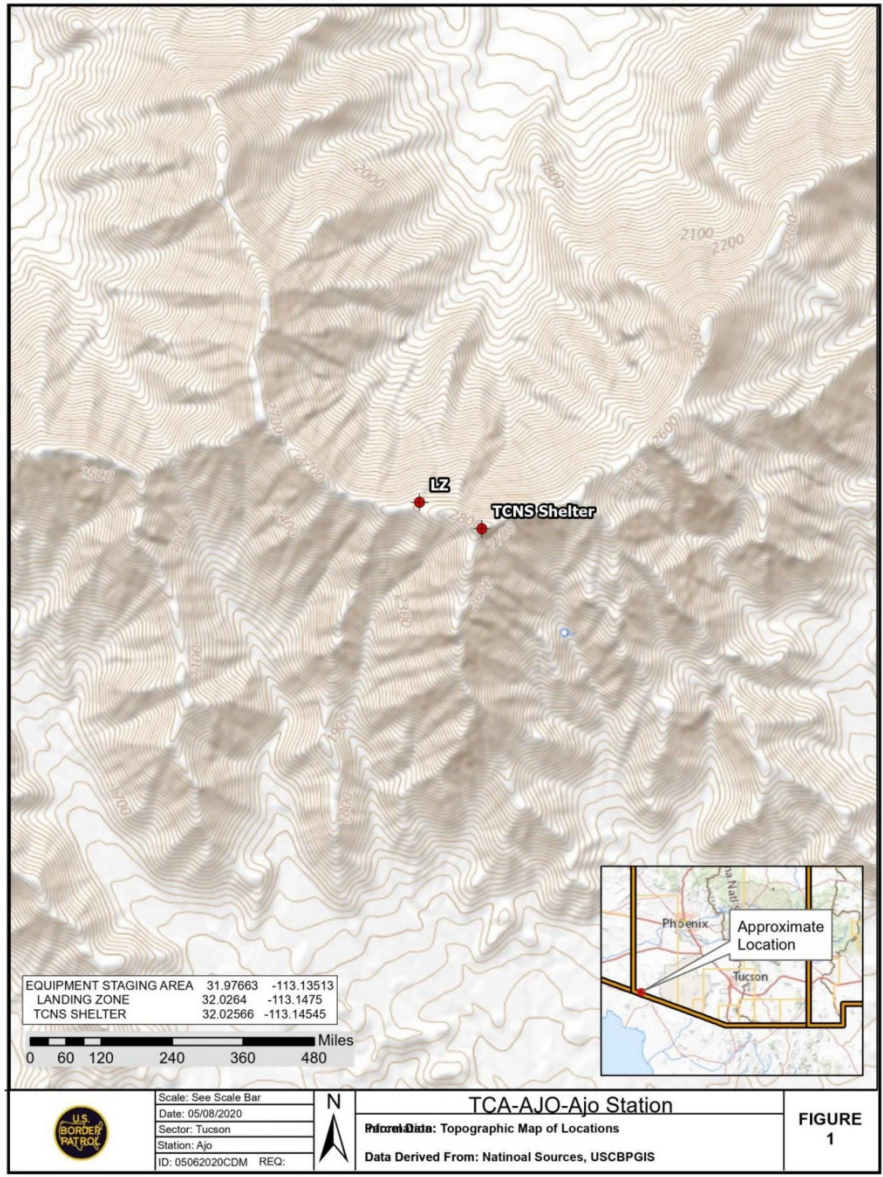
Enclosure 1: Representative Photographic of TCNS Shelter



Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



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Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top

**From:** Peter Steere <[Peter.Steere@tonation-nsn.gov](mailto:Peter.Steere@tonation-nsn.gov)>  
**Sent:** Tuesday, August 25, 2020 6:26 PM  
**To:** CASTILLO, RAFAEL M <[RAFAEL.M.CASTILLO@cbp.dhs.gov](mailto:RAFAEL.M.CASTILLO@cbp.dhs.gov)>  
**Cc:** ENRIQUEZ, PAUL <[paul.enriquez@cbp.dhs.gov](mailto:paul.enriquez@cbp.dhs.gov)>; Ned Norris Jr. <[Ned.NorrisJr@tonation-nsn.gov](mailto:Ned.NorrisJr@tonation-nsn.gov)>;  
Jesse Navarro <[Jesse.Navarro@tonation-nsn.gov](mailto:Jesse.Navarro@tonation-nsn.gov)>; Samuel Fayuant <[Samuel.Fayuant@tonation-nsn.gov](mailto:Samuel.Fayuant@tonation-nsn.gov)>;  
Slone, Sid <[sid\\_slone@fws.gov](mailto:sid_slone@fws.gov)>  
**Subject:** Radio Repeater in Agua Dulce Mountains - Cabeza Prieta National Wildlife Refuge

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MEMORNDUM

DATE: August 25, 2020

TO: Rafael Castillo, CBP

CC: Paul Enriquez, CBP  
Ned Norris, Jr. Chairman, Tohono O'odham Nation  
Jesse Navarro, Chairman's Staff  
Sid Slone, Manager, Cabeza Prieta National Wildlife Refuge  
Samuel Fayant, Tohono O'odham THPO

FROM: Peter L. Steere, THPO, Tohono O'odham Nation

RE: Placement of Radio Repeater in Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge

---

Thank you for consulting with the Tohono O'odham Nation on this proposed project in the Agua Dulce Mountains.

The Tohono O'odham Nation had two concerns regarding this project.

1. Is it appropriate to place this radio repeater in the Agua Dulce Mountains which are located in a designated wilderness area
2. Does this mountain top in the Agua Dulce Mountains have any cultural significance to the Hia-Ced O'odham.

The Manager of the Cabeza Prieta National Wildlife Refuge, Sid Slone has no objections to placing this radio repeater in the Agua Dulce Mountains.

Lorraine Eiler, a Hia Ced O'odham elder has indicated that the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham.

Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

The Tohono O'odham Nation THPO requests to be notified when the helicopter placement of this radio repeater is scheduled.

We request that Samuel Fayant, Cultural Specialist with the Tohono O'odham Nation THPO be permitted travel in the helicopter to the top of the mountain when the radio repeater is placed.





U.S. Customs and  
Border Protection

December 15, 2020

Lori Gooday Ware  
Chairwoman  
Fort Sill Apache Tribe of Oklahoma  
P.O. Box 1343  
Anadarko, OK 73005

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairwoman Gooday Ware:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Fort Sill Apache Tribe of Oklahoma pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

Lori Gooday Ware, Fort Sill Apache Tribe of Oklahoma  
Page 2

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation Tribal Elders indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

#### **Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

#### **Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Tribe are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez

Lori Gooday Ware, Fort Sill Apache Tribe of Oklahoma  
Page 3

Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

Enclosures:

Enclosure 1 Representative Photograph of TCNS Shelter

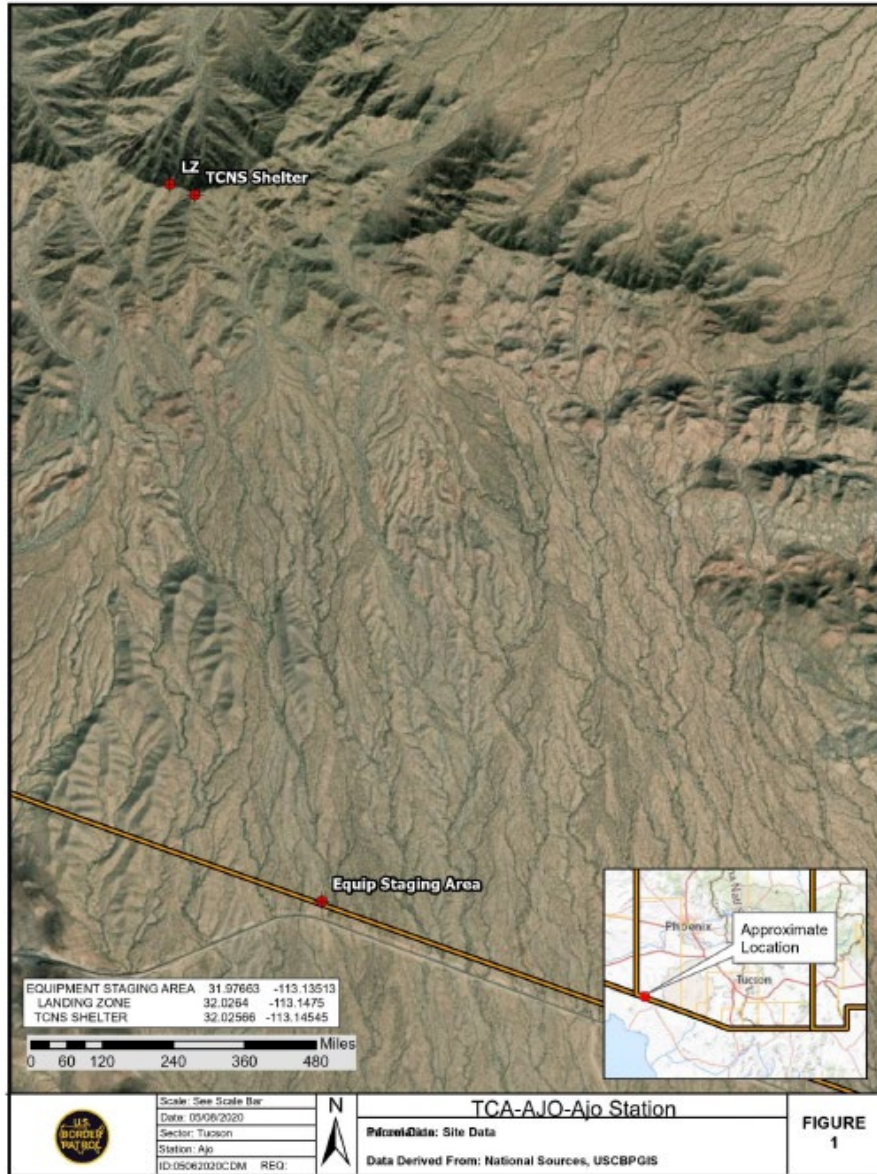
Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter

Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top

Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



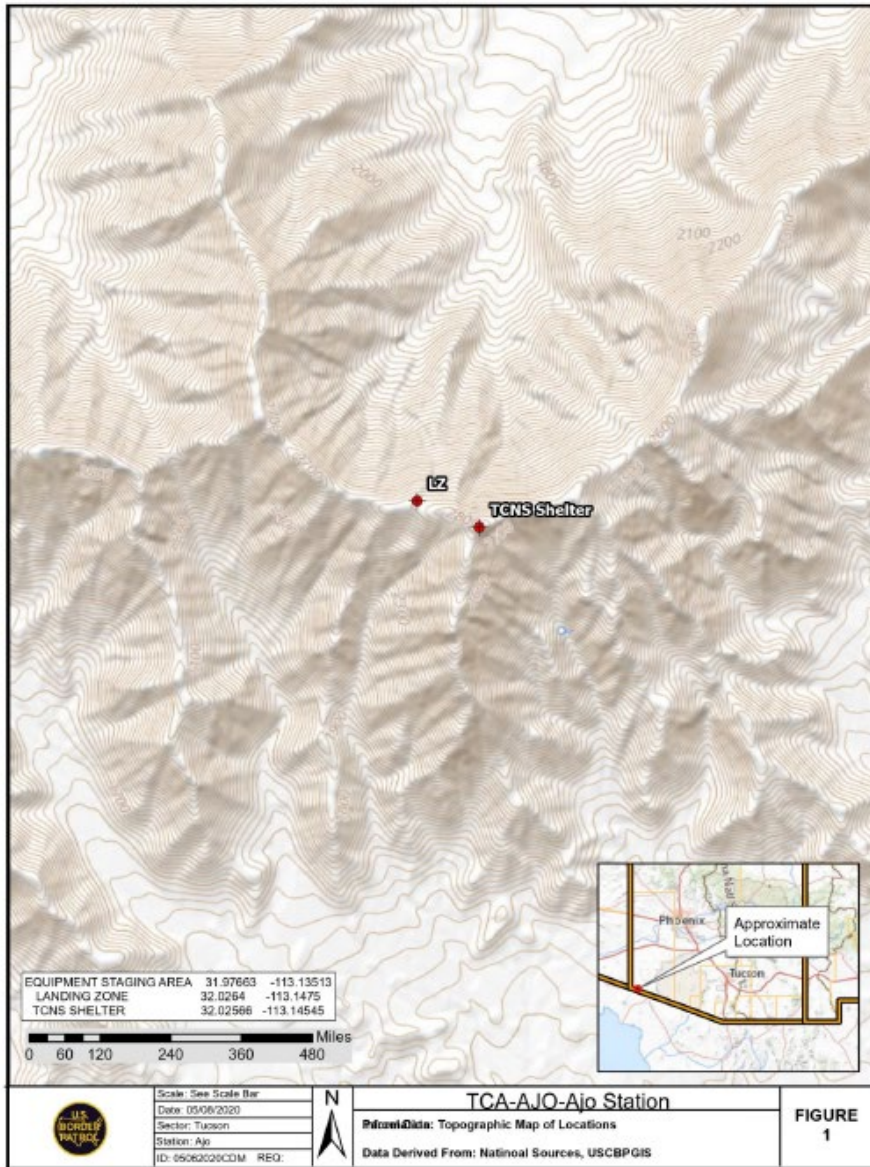
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Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



U.S. Customs and  
Border Protection

December 15, 2020

Timothy Nuvangyaoma  
Chairman  
Hopi Tribe of Arizona  
P.O. Box 123  
Kykotsmovi, AZ 86039

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairman Nuvangyaoma:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Hopi Tribe of Arizona pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging

Timothy Nuvangyaoma, Hopi Tribe of Arizona  
Page 2

area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation Tribal Elders indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Tribe are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental



Timothy Nuvangyaoma, Hopi Tribe of Arizona  
Page 3

Program Management Office Directorate  
United States Border Patrol

Enclosures:

Enclosure 1 Representative Photograph of TCNS Shelter

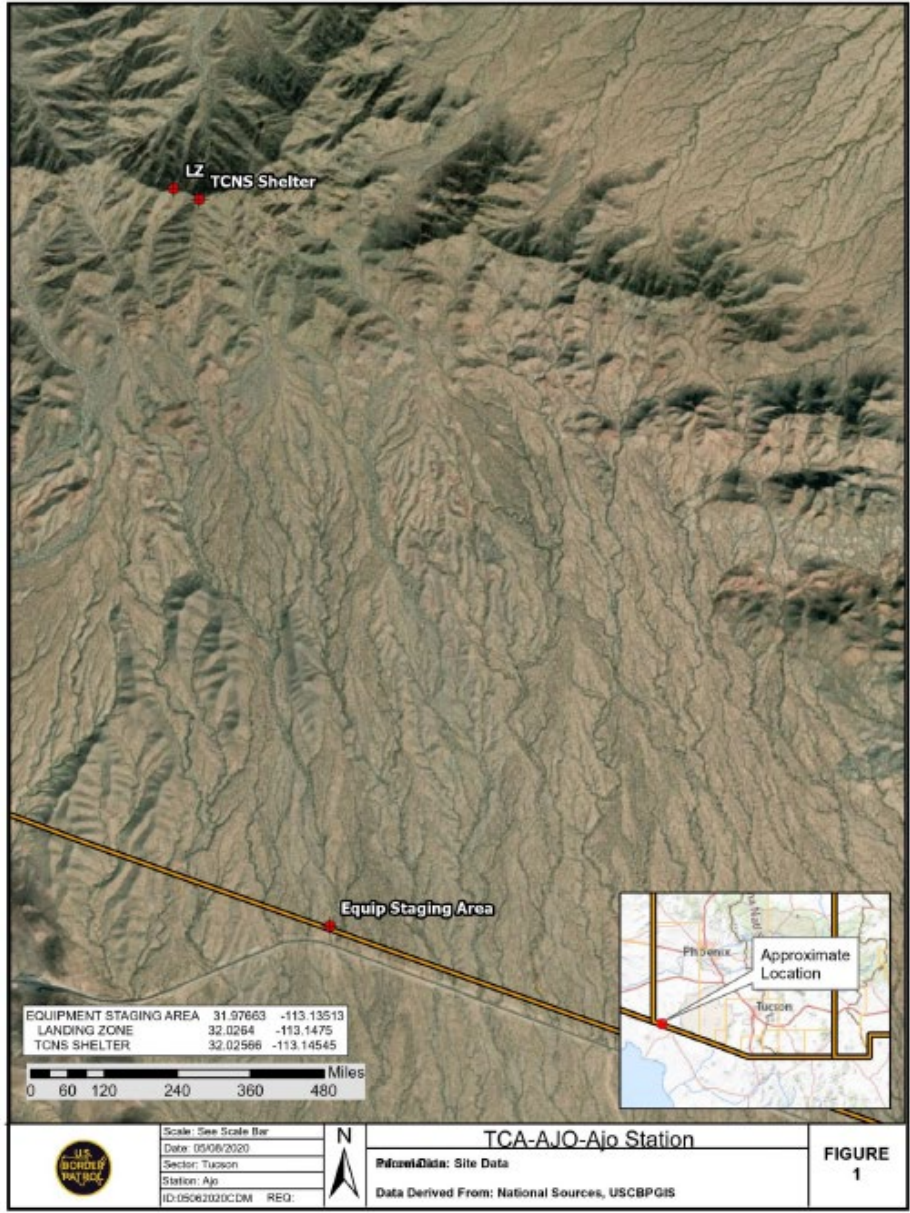
Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter

Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top

Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



Enclosure 1: Representative Photograph of TCNS Shelter



Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



U.S. Customs and  
Border Protection

December 15, 2020

Peter Yucupicio  
Chairperson  
Pascua Yaqui Tribe of Arizona  
7474 South Camino de Oeste  
Tucson, AZ 85757

**SUBJECT:** Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairperson Yucupicio:

U.S. Customs and Border Protection (CBP) is initiating consultation with the Pascua Yaqui Tribe of Arizona pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they

Peter Yucupicio, Pascua Yaqui Tribe of Arizona  
Page 2

are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation Tribal Elders indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Tribe are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate

Peter Yucupicio, Pascua Yaqui Tribe of Arizona  
Page 3

United States Border Patrol

Enclosures:

Enclosure 1 Representative Photograph of TCNS Shelter

Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter

Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top

Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



Enclosure 1: Representative Photograph of TCNS Shelter

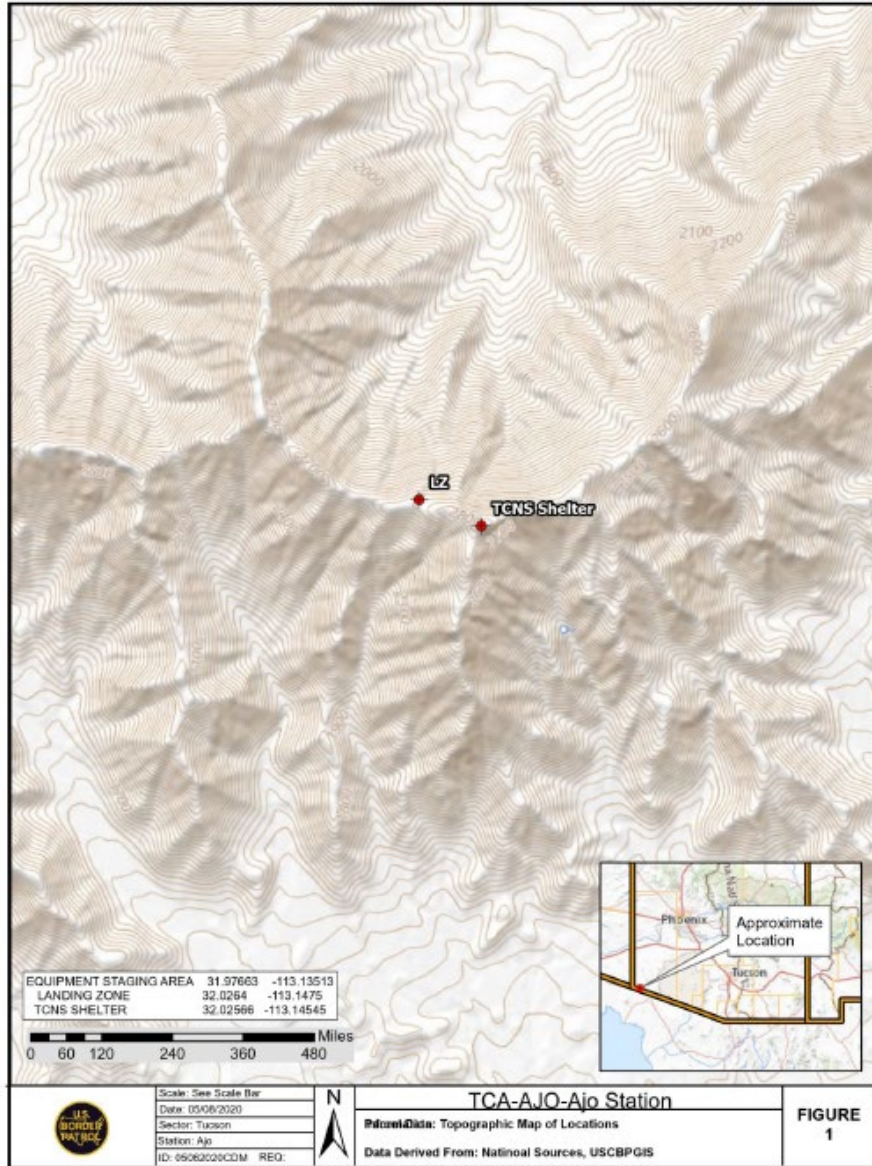


Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter





Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



U.S. Customs and  
Border Protection

December 15, 2020

Terry Rambler  
Chairman  
San Carlos Apache Tribe of the San Carlos Reservation, Arizona  
P.O. Box 0  
San Carlos, AZ 85550

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairman Rambler:

U.S. Customs and Border Protection (CBP) is initiating consultation with the San Carlos Apache Tribe of the San Carlos Reservation, Arizona pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging

Terry Rambler, San Carlos Apache Tribe of the San Carlos Reservation, Arizona  
Page 2

area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation Tribal Elders indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Tribe are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental

Terry Rambler, San Carlos Apache Tribe of the San Carlos Reservation, Arizona  
Page 3

Program Management Office Directorate  
United States Border Patrol

Enclosures:

Enclosure 1 Representative Photograph of TCNS Shelter

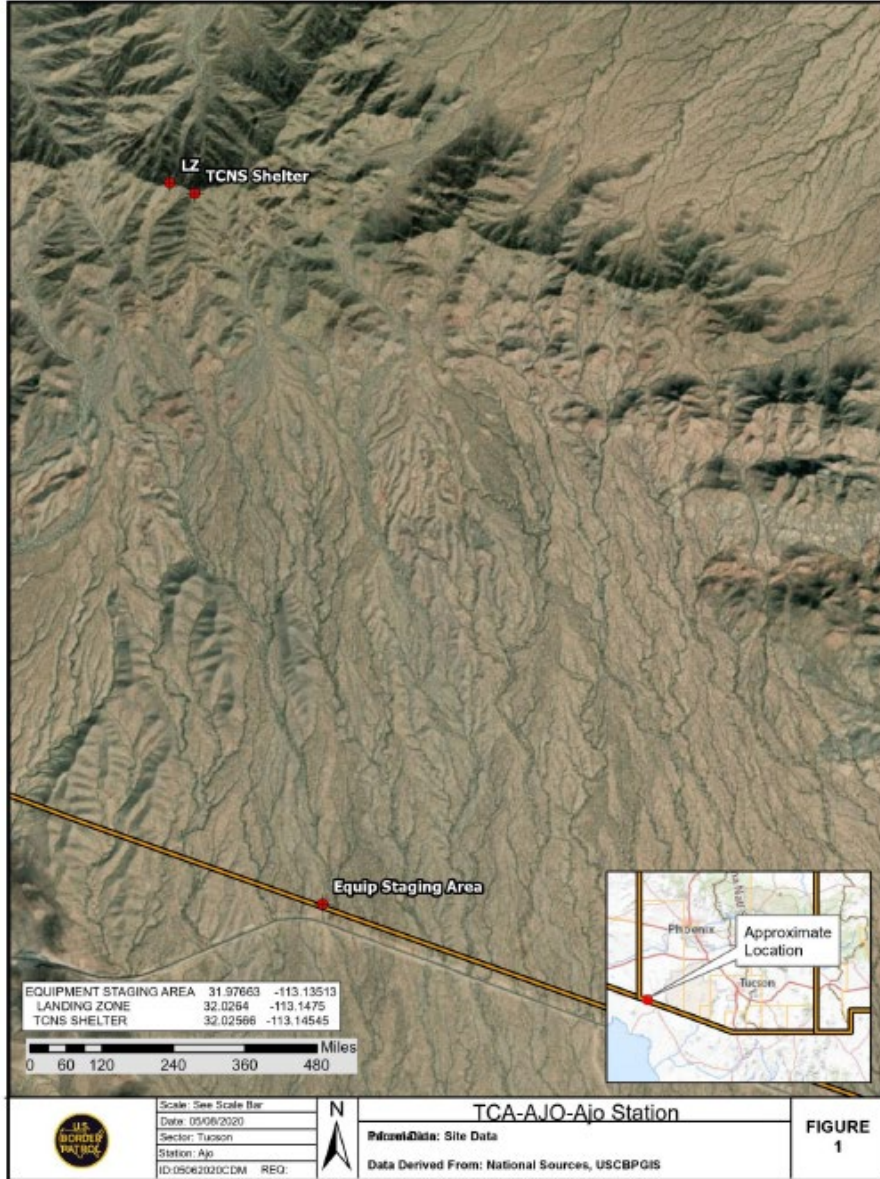
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Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



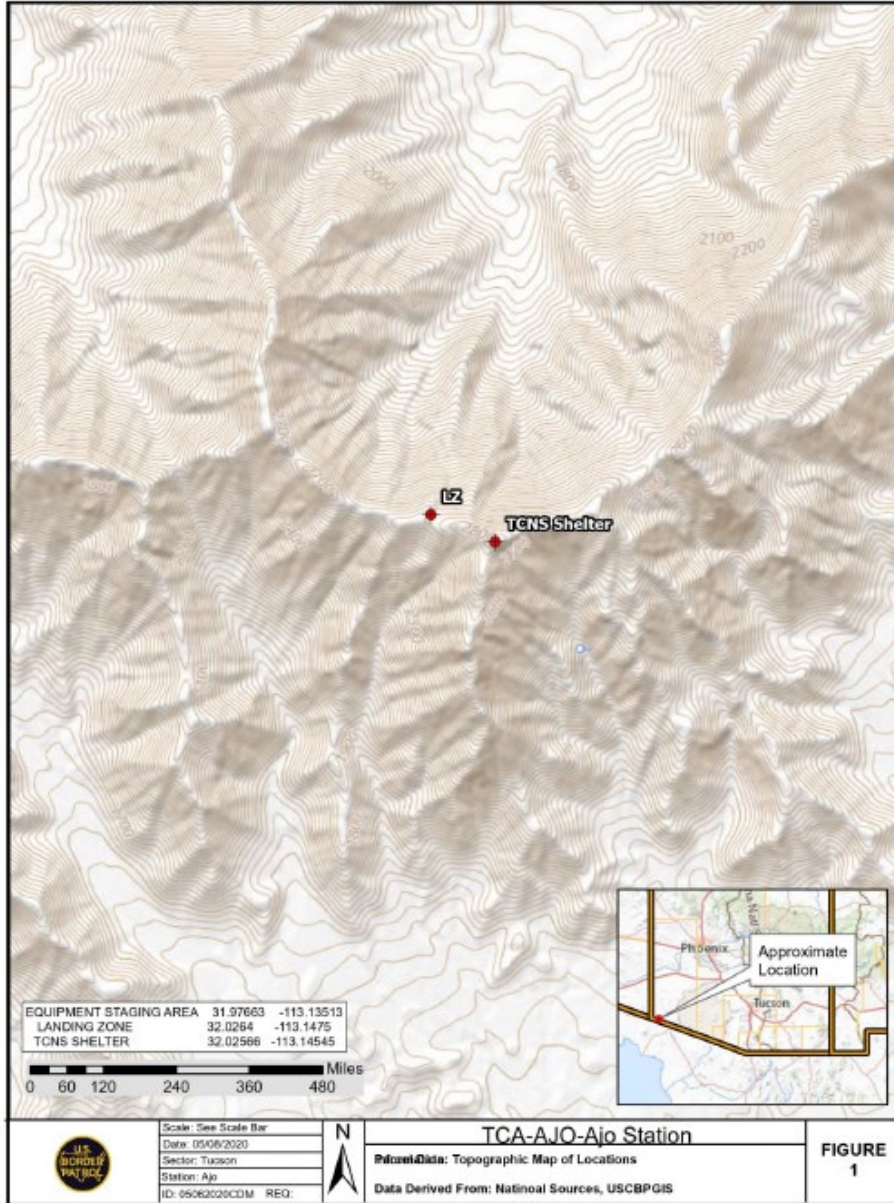
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Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top





U.S. Customs and  
Border Protection

December 15, 2020

Ronnie Lupe  
Chairperson  
White Mountain Apache Tribe of the Fort Apache Reservation, Arizona  
P.O. Box 1150  
Whiteriver, AZ San Carlos, AZ 85941

SUBJECT: Notification of CBP Proposed Undertaking – Tactical Communications Network System, Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Chairperson Lupe:

U.S. Customs and Border Protection (CBP) is initiating consultation with the White Mountain Apache Tribe of the Fort Apache Reservation, Arizona pursuant to the National Historic Preservation Act and its implementing regulations 36 CFR Part 800.10(c) regarding its installation and operation of a Tactical Communication Network System (TCNS) in Cabeza Prieta National Wildlife Refuge, Pima County, AZ.

#### **Description of Undertaking**

The proposed undertaking consists of the deployment of a Tactical Communications Network System (TCNS), to address current gaps in the CBP's tactical communications capability in Cabeza Prieta National Wildlife Refuge (CPNWR) south of the Agua Dulce Mountains. The system will be located on a south facing peak in the vicinity of coordinates (32.02566, -113.14545). Access to the site will be via helicopter. The helicopter landing zone (for the purpose of transporting personnel) will be in the vicinity of coordinates (32.0264, -113.1475). Once installation personnel are in place, the equipment will be lifted via helicopter to the TCNS location. Equipment will be staged for transport in the vicinity of coordinates (31.97663, -113.13513). Equipment installation will take one day to complete. Thereafter, CBP will conduct system maintenance, via helicopter, once per year.

The shelter will sit on the ground and be anchored with rock anchors. A grounding rod will be inserted to protect the system from lightning strikes. No other site disturbance is required.

#### **Area of Potential Effects**

CBP has defined the Area of Potential Effect (APE) for the TCNS as the proposed location of the staging area, helicopter landing zone and TCNS shelter location.

#### **Identification and Evaluation of Historic Properties**

Ronnie Lupe, White Mountain Apache Tribe of the Fort Apache Reservation, Arizona  
Page 2

The proposed location of the TCNS has been the subject of database research by CBP Historic Preservation staff. CBP did not identify any recorded historic or cultural resources at the staging area, landing site or TCNS shelter location. Correspondence with CPNWR indicates that they are unaware of any historic or cultural resources or archaeological artifacts in this area. Consultation with the Tohono O'odham Nation Tribal Elders indicated the Agua Dulce Mountains have no special cultural significance to the Hia-Ced O'odham. Therefore, the Tohono O'odham Nation THPO has no objections to the placing of this radio repeater in the Agua Dulce Mountains.

**Best Management Practices**

The following best management practices (BMPs) will be implemented to minimize impacts on the human and natural environment:

1. CBP will have an archaeologist/cultural monitor on site during equipment installation. A site walk will be conducted prior to equipment staging and delivery to the TCNS location. Any observed archaeological artifacts will be marked and avoided.
2. CBP will immediately notify the CPNWR staff if unexpected cultural resources are observed. All operators are required to prevent the destruction or damage of these discovered resources. Operations may not resume until operations are directed to proceed by the CBP Environmental Manager.

**Conclusion – No Adverse Effect**

Based on a lack of historic buildings, structures, sites, districts or objects located within the APE, and the implementation of mitigation BMPs, CBP has made a determination of no historic properties present or affected for this undertaking pursuant to Section 800.4(d)(1).

To ensure that any areas of sacred or spiritual significance to the Tribe are considered, CBP would appreciate your assistance with identifying interests or concerns regarding the cultural resources that you believe may be affected by the proposed Undertaking. CBP welcomes your comments on these Undertakings and looks forward to hearing any concerns you may have regarding cultural resources, traditional cultural properties, and Indian sacred sites within the proposed Undertaking.

Your prompt attention to the request is greatly appreciated. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send your response to: Paul Enriquez, US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



Paul Enriquez

Ronnie Lupe, White Mountain Apache Tribe of the Fort Apache Reservation, Arizona  
Page 3

Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

Enclosures:

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Enclosure 2 Undertaking Location – Staging Area, Landing Zone, TCNS Shelter

Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top

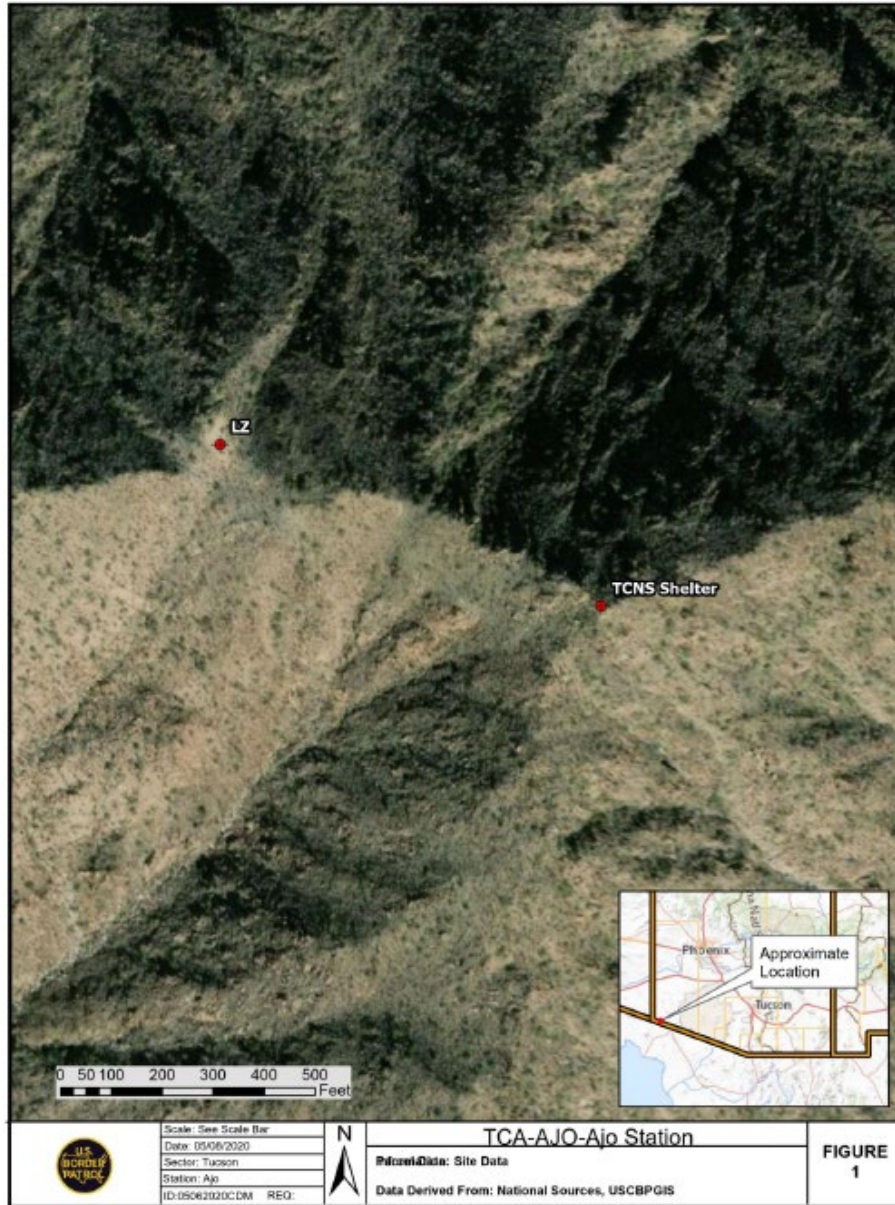
Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



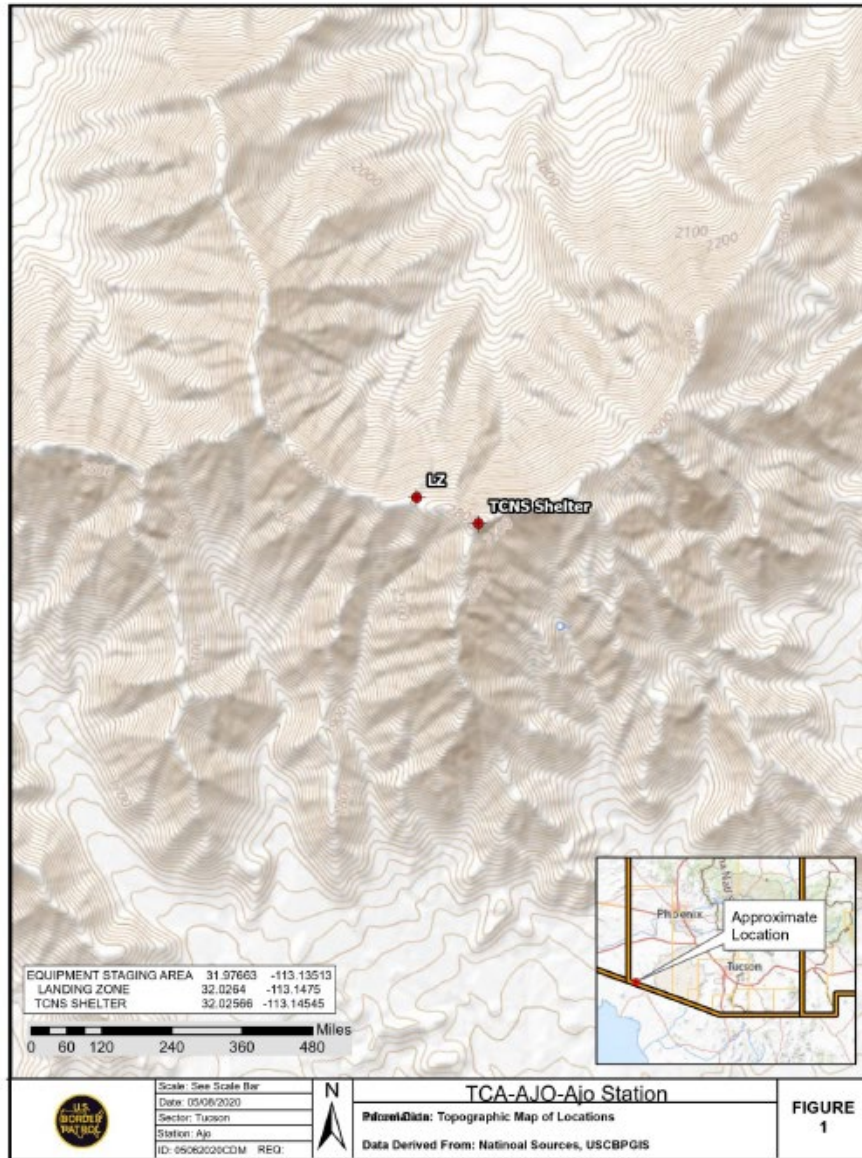
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Enclosure 2: Undertaking Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Undertaking Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



1300 Pennsylvania Avenue NW  
Washington, DC 20229

**U.S. Customs and  
Border Protection**

July 13, 2020

United States Fish and Wildlife Service  
Attn: Jeff Humphrey, Field Supervisor  
Arizona Ecological Services  
9828 North 31<sup>st</sup> Avenue #C3  
Phoenix, AZ 85051-2517

**SUBJECT:** Section 7 Compliance for a proposed Tactical Communications Network System (TCNS), Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Mr. Humphrey:

Pursuant to Section 7 of the Endangered Species Act (ESA), as amended (16 U.S.C.1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250), the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667d), and U.S. Department of Homeland Security (DHS) Management Directive 023-01, Environmental Planning Program (MD 023-01), U.S. Customs and Border Protection (CBP) is analyzing the potential environmental impacts of its deployment and operation of a Tactical Communication Network System (TCNS) in the Cabeza Prieta National Wildlife Refuge, Pima County, Arizona.

**DESCRIPTION OF THE PROPOSED ACTION**

CBP proposes the installation, operation, and maintenance of communications equipment in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge (CPNWR), Pima County, Arizona. The Proposed Action consists of the deployment of a solar-powered Tactical Communication Network System (TCNS) in the Agua Dulce Mountains, CPNWR, to address current gaps in communications capability along the international border south of the Agua Dulce Mountains. TCNS would consist of a mini TCNS shelter, communications equipment (Codan Repeater), communication antennas, and solar panels. The TCNS is minimal in nature, the equipment would be painted to blend with the background and minimize glare. The system is open and would allow water and diffuse light to pass through to the ground. The shelter would be anchored to the ground using rock anchors and anchoring cables. No digging or excavation would be performed. No heavy equipment such as cranes or bulldozers would be used to install the shelter. No lights would be attached to the antennas or shelter. The TCNS site location is at decimal coordinates (32.02566, -113.14545). Given the weight of the system and remote mountain location, the equipment will be inserted via helicopter lift. The proposed helicopter landing zone is at decimal coordinates (32.02640, -113.14750). Equipment for helicopter lift will be staged at a disturbed site a decimal coordinates (31.97663, -113.13513).

During installation, the area surrounding the shelter would be affected as component pieces of equipment are staged on the ground around the shelter site until carried to the site for installation. For this reason, the area affected during initial construction is larger, but short term. The entire assembly area (including the shelter footprint) is approximately 600 square feet (20' x 30'). The footprint of the shelter (3' x 7') is a smaller, negligible effect over the long term. The only potential invasive disturbance would be the installation of a lightning rod to electrically ground the equipment. This rod would be located within the 21 square foot area, and be placed at a depth no more than 12 inches below ground surface.

The project site is on a remote mountaintop ridge. It is not protected by a security fence, and is accessible only by helicopter, on horseback, or on foot. Due to the weight of the equipment to be installed, all equipment and personnel would be airlifted to the site during the installation phase of the project. Installation would be complete in one day. Thereafter, scheduled maintenance and repair or replacement of faulty equipment would occur once per year by helicopter, on foot, or on horseback depending on season of year (no helicopter access would occur between March 15 and July 15 due to the Sonoran pronghorn [*Antilocapra americana sonoriensis*] fawning season). Trips for emergency repairs may be necessary in addition to the annual maintenance trips. Eight round trips are estimated to transport the construction crew and equipment. No access roads, utility lines or permanent helipad would be constructed.

The helicopter landing zone measures 100' x 100' and is approximately 700' from the TCNS shelter location. The helicopter will land twice during the installation to drop off and pick up personnel. Additional trips will be to transport equipment to the TCNS location via external sling loads.

The equipment staging area measures 100' x 100'. Equipment staging will be in a previously disturbed area along the border road used for equipment and material staging during the border wall construction.

### **EFFECTS ANALYSIS**

A list of threatened and endangered species that may occur in the project vicinity is included in the following table. According to CPNWR staff, the only federally listed threatened and endangered species that may potentially occur at or near the project site is Sonoran Pronghorn Antelope *Antilocapra americana sonoriensis*. A species of concern, Graham's nipple cactus, *Mammillaria grahamii* (Also known as Arizona Fish Hook Cactus) may also be present at the project site. There are no designated critical habitats at the project location.



**Threatened and Endangered Species**

Common Name	Scientific Name	Federal Status	Effect Determination
<b>Mammals</b>			
Jaguar	<i>Panthera onca</i>	E	No Effect
Sonoran Pronghorn Antelope	<i>Antilocapra americana sonoriensis</i>	E	Not Likely to Adversely Effect
<b>Birds</b>			
California Least Tern	<i>Sterna antillarum browni</i>	E	No Effect
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	T	No Effect
<b>Reptiles</b>			
Northern Mexican Gartersnake	<i>Thamnophis eques megalops</i>	T	No Effect
Sonoyta Mud Turtle	<i>Kinosternon sonoriense longifemorale</i>	E	No Effect

**VEGETATIVE COMMUNITIES**

The project area is located in the Lower Colorado River Valley Subdivision of the Sonoran Desert Scrub Biome. The plant species that inhabit this area are adapted to dry, desert environments. Tree species include western honey mesquite, ironwood, blue palo verde, and smoke tree. Additional species that are only found in washes include desert willow, chuparosa, canyon ragweed, desert honeysuckle, catclaw acacia, burrobrush, and desert broom. In dryer and more barren upland areas the more common desert pavement plants are woody plantain, creosotebush, white bursage, ocotillo, brittlebush, foothill palo verde, and saguaro. A number of cacti are commonly found in this biome subdivision. They include silver cholla, diamond cholla, teddy bear cholla, chainfruit cholla, englemann hedgehog, and fishhook barrel cactus

**MAMMALS**

Two Federal-listed mammals have the potential to be present in the Project Area. These include the: Jaguar (*Panthera onca*) and the Sonoran Pronghorn Antelope (*Antilocapra americana sonoriensis*).

**Jaguar (*Panthera onca*)**

No Potential to be Present. Coordination with Cabeza Prieta National Wildlife Staff indicates that the jaguar is unlikely to be present at or near the project location(s). Therefore CBP has determined that the proposed action will have No Effect on the Jaguar.

**Sonoran Pronghorn Antelope (*Antilocapra Americana sonoriensis*)**

Coordination with Cabeza Prieta National Wildlife Staff indicates that the Sonoran Pronghorn Antelope have the potential to be present at or near the project location(s). The activity most likely to affect the pronghorn would be noise associated with the use of a helicopter to install the shelter. The installation would require eight (8) round trips to transport both personnel and equipment and would be completed in one (1) day. The impact would be minor and temporary in nature. Noise associated with the proposed action would be significantly less in intensity and duration than the recent border wall installation that occurred in this area. No helicopter

access would occur between March 15 and July 15 due to the Sonoran pronghorn fawning season. Annual maintenance flights would originate from Ajo and be at a much higher altitude than the installation requirements. Based on these requirements and constraints, CBP has determined that should the Sonoran Pronghorn be present in the project location(s) the proposed action may affect but not likely adversely affect Sonoran Pronghorn Antelope.

#### **BIRDS**

Two Federal-listed birds have the potential to be present in the Project Area. These include the: California Least Tern (*Sterna antillarum*) and the Yellow-billed Cuckoo (*Coccyzus americanus*). Jaguar (*Panthera onca*) and the Sonoran Pronghorn Antelope (*Antilocapra americana sonoriensis*).

##### **California Least Tern**

No Potential to be Present. Coordination with Cabeza Prieta National Wildlife Staff indicates that the California Least Tern is unlikely to be present at or near the project location(s). Therefore CBP has determined that the proposed action will have No Effect on the California Least Tern.

##### **Yellow-Billed Cuckoo**

No Potential to be Present. Coordination with Cabeza Prieta National Wildlife Staff indicates that the Yellow-Billed Cuckoo is unlikely to be present at or near the project location(s). Therefore CBP has determined that the proposed action will have No Effect on the Yellow-Billed Cuckoo.

#### **REPTILES**

Two Federal-listed reptiles have the potential to be present in the Project Area. These include the: Northern Mexican Gartersnake (*Thamnophis eques megalops*) and the Sonoyta Mud Turtle (*Kinosternon sonoriense longifemorale*).

##### **Northern Mexican Gartersnake**

No Potential to be Present. Coordination with Cabeza Prieta National Wildlife Staff indicates that the Northern Mexican Gartersnake is unlikely to be present at or near the project location(s). Therefore CBP has determined that the proposed action will have No Effect on the Mexican Gartersnake.

##### **Sonoyta Mud Turtle**

No Potential to be Present. Coordination with Cabeza Prieta National Wildlife Staff indicates that the Sonoyta Mud Turtle is unlikely to be present at or near the project location(s). Therefore CBP has determined that the proposed action will have No Effect on the Sonoyta Mud Turtle.

#### **SPECIES OF CONCERN**

One Species of Concern has the potential to be present in the Project Area. Graham's nipple cactus, *Mammillaria grahamii* (Also known as Arizona Fish Hook Cactus).

##### **Graham's Nipple Cactus**

Coordination with Cabeza Prieta National Wildlife Staff indicates that the Graham's nipple cactus has the potential to be present at or near the project location(s). CBP will have a biologist present during equipment staging and installation. The biologist will conduct a site walk and, if present, direct placement of equipment to avoid any observed cactus locations. Therefore CBP has determined that the proposed action will have No Effect on the Graham's nipple cactus.

#### **CRITICAL HABITAT**

There are no critical habitats within the Project Area.

#### **FEDERAL MIGRATORY BIRD TREATY ACT**

The Migratory Bird Treaty Act requires that Federal agencies coordinate with the U.S. Fish and Wildlife Service (USFWS) if a construction activity would result in any harm to a migratory bird, including breeding and nesting activities. TCNS installation is expected to occur before the nesting season (typically February 1 to August 31). Surveys for migratory bird species to identify active nests would occur immediately prior to the start of any staging or installation activity. If project activities would result in the disturbance or harm of a migratory bird, then coordination with the USFWS and the Arizona Game and Fish Department (AZGFD) would occur.

#### **BEST MANAGEMENT PRACTICES**

The following general best management practices (BMPs) are recommended for implementation. Implementation of these general BMPs, in combination with the species- and habitat-specific measures will reduce construction-related impacts.

##### **General BMPs**

1. A biological monitor will conduct a site survey prior to equipment staging and installation. Should species be present at the staging, helicopter landing and/or installation sites, the biologist will direct the placement of equipment to avoid these species.
2. If an individual of a Federal-listed species is found in the designated Project Area, work will cease in that area until either a qualified biologist can safely remove the individual, or it moves away on its own, to the extent possible, installation schedule permitting.
3. Equipment staging areas will be accessed using only designated roads. This will limit the development of multiple trails to such sites and reduce the effects to Federal-listed habitats.
4. Areas already disturbed by past activities will be used for equipment staging and vehicle parking.
5. To eliminate attracting predators of protected animals, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed daily from the project site.

#### **CONCLUSION – NO ADVERSE EFFECTS**

Based on the small equipment footprint, minimal installation time (one day), and information received from Cabeza Prieta National Wildlife Refuge staff concerning the probability of federally listed species occurring at the project site(s), CBP has made a determination of No Effect for the following federally listed species: Jaguar, California Least Tern, Yellow-billed Cuckoo, Northern Mexican Gartersnake, and Sonoyat Mid Turtle. Similarly, CBP has made a determination of No Effect for the Graham's nipple cactus (Species of Concern).

Jeff Humphrey, USFWS  
Page 6

CBP has made a determination of Not Likely to Adversely Effect the Sonoran Pronghorn Antelope.

We request your concurrence with our determination. If no response is received within 60 days a concurrence will be presumed. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send correspondence to: US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229 Attn: *Paul Enriquez*. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,

A handwritten signature in blue ink that reads "Paul Enriquez". The signature is written in a cursive, flowing style.

Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol



**United States Department of the Interior**  
**Fish and Wildlife Service**  
**Arizona Ecological Services Office**  
9828 North 31<sup>st</sup> Avenue, Suite C3  
Phoenix, Arizona 85051  
Telephone: (602) 242-0210 Fax: (602) 242-2513



**In reply refer to:**

AESO/SE  
02EAAZ00-2020-I-1291

August 28, 2020

Mr. Paul Enriquez  
Director, Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United State Customs and Border Protection  
Border Patrol HQ  
1300 Pennsylvania Ave NW 6.5E Mail Stop 1039  
Washington, D.C. 20229

Re: Informal Consultation on the U.S. Customs and Border Protection's Tactical  
Communications Network System (TCNS), Cabeza Prieta National Wildlife Refuge, Pima  
County, Arizona

Thank you for your correspondence of July 13, 2020, received on July 23, 2020. This letter documents our review of the U.S. Customs and Border Protection's (CBP) Tactical Communications Network System (TCNS) project in the Agua Dulce Mountains on Cabeza Prieta National Wildlife Refuge (CPNWR), Pima County, Arizona, in compliance with section 7 of the Endangered Species Act of 1973 (ESA) as amended (16 U.S.C. 1531 et seq.). Your letter concluded that the proposed project may affect, but is not likely to adversely affect the endangered Sonoran pronghorn (*Antilocapra americana sonoriensis*). We concur with your determination and provide our rationale below.

Additionally, this letter documents our concurrence with CPNWR's issuance of a Special Use Permit (SUP) for the aforementioned project. CPNWR's action is solely administrative and therefore has no effects beyond those associated with the implementation of the TCNS project.

**Description of the Proposed Action**

A complete description of the proposed action is found in your July 13, 2020, letter/biological evaluation and August 2020 emails. The CBP has identified a need to install, operate, and maintain communications equipment (TCNS) in the Agua Dulce Mountains on CPNWR, Pima County, Arizona, to address current gaps in communications capability along the international border south of the Agua Dulce Mountains (Figure 1). The solar-powered TCNS will consist of a mini TCNS shelter, communication equipment (Codan Repeater), communication antennas,

and solar panels. The TCNS permanent footprint will be approximately 21 square feet. The assembly footprint will be 600 square feet, but most of the disturbance associated with assembly will be temporary. No lighting, digging, or heavy equipment will be needed for the installation or operation of TCNS.

Equipment staging and installation will take one day to complete and will occur in the fall 2020 or winter of 2020/2021. Equipment will be transported by up to four vehicles from Lukeville to an already disturbed staging site along the border (Figure 1). Vehicles will remain on designated roads and speed limits (25 mph or less) will be adhered to. A helicopter will be used to transport the equipment and construction crew from the staging site to the TCNS site in the mountains. Eight helicopter round trips will be required from the staging site to the TCNS site. Scheduled maintenance and repair or replacement of equipment will occur once per year by helicopter, on foot, or on horseback depending on the season of year. No helicopter access will occur between March 15 and July 15 to minimize impacts to Sonoran pronghorn. Unscheduled helicopter trips may be necessary for emergency repair.

CBP will implement best management practices (BMPs) to avoid and/or minimize project impacts on natural resources, including Sonoran pronghorn. Two BMPs most relevant to minimizing adverse effects on Sonoran pronghorn include:

- 1) The proposed work will not be performed until CPNWR issues a SUP and completes any required environmental compliance and administrative procedures.
- 2) CBP will minimize the number of construction and maintenance trips traveling to and from the project site. The CPNWR will be consulted regarding best approach and timing of helicopter trips for both installation and maintenance of the TCNS.

#### DETERMINATION OF EFFECTS

We concur with your determination that the proposed action may affect, but is not likely to adversely affect the Sonoran pronghorn for the following reasons:

- TCNS installation will take one day to complete and annual maintenance will occur on a limited basis. To minimize impacts to Sonoran pronghorn, no scheduled helicopter trips will occur from March 15 to July 15 and CBP will coordinate with CPNWR regarding best approach and timing of helicopter trips for both installation and maintenance of the TCNS. Therefore, potential direct effects to Sonoran pronghorn (in the form of disturbance) are insignificant.
- No Sonoran pronghorn habitat will be disturbed by project. Therefore, indirect effects to Sonoran pronghorn (in the form of habitat disturbance) are insignificant.

In keeping with our trust responsibilities to American Indian Tribes, by copy of this letter we are notifying Tribes (the Tohono O'odham Nation) that may be affected by this proposed action and encourage you to invite the Bureau of Indian Affairs to participate in the review of your proposed action. We also encourage you to coordinate the review of this project with the Arizona Game and Fish Department.

Thank you for your continued coordination. No further section 7 consultation is required for this

Mr. Enriquez

3

project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. In all future correspondence on this project, please refer to consultation number 02EAAZ00-2020-I-1291.

If you require further assistance or you have any questions, please contact Erin Fernandez (520-670-6150 x 238) or Julie McIntyre (520-670-6150 x 223).

**Julie  
McIntyre for**  
Jeffrey A. Humphrey  
Field Supervisor

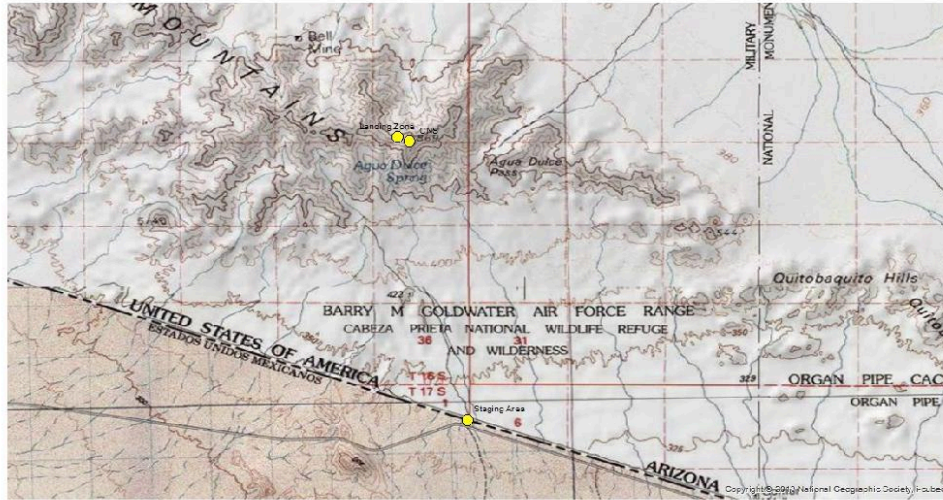


Digitally signed by Julie  
McIntyre for  
Date: 2020.08.28 11:43:04  
-07'00'

cc (electronic):

Assistant Field Supervisor, Fish and Wildlife Service, Tucson (Attn: Erin Fernandez)  
Refuge Manager, Cabeza Prieta National Wildlife Refuge, Ajo, AZ (Attn: Sid Slone)  
Sonoran Pronghorn Recovery Coordinator, Cabeza Prieta National Wildlife Refuge, Ajo, AZ  
(Attn: Stephanie Doerries)  
Honorable Chairman, Ned Norris Jr., Tohono O'odham Nation, Sells, AZ (Attn: Alex Cruz)  
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

**Figures**



**Figure 1.** Proposed location of the U.S. Customs and Border Protection’s Tactical Communications Network System and staging area on Cabeza Prieta National Wildlife Refuge, Pima County, Arizona (CBP 2020).





1300 Pennsylvania Avenue NW  
Washington, DC 20229

U.S. Customs and  
Border Protection

December 14, 2020

Mike Sumner  
Arizona Game and Fish Department Region 4  
9140 E 28<sup>th</sup> St.  
Yuma, AZ 85365

SUBJECT: Proposed Tactical Communications Network System (TCNS), Cabeza Prieta National Wildlife Refuge, Pima County, Arizona

Dear Mr. Sumner:

Customs and Border Protection (CBP) is proposing the installation, operation, and maintenance of communications equipment in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge (CPNWR), Pima County, Arizona. The Proposed Action consists of the deployment of a solar-powered Tactical Communication Network System (TCNS) in the Agua Dulce Mountains, CPNWR, to address current gaps in communications capability along the international border south of the Agua Dulce Mountains.

#### **DESCRIPTION OF THE PROPOSED ACTION**

CBP proposes the installation, operation, and maintenance of communications equipment in the Agua Dulce Mountains, Cabeza Prieta National Wildlife Refuge (CPNWR), Pima County, Arizona. The Proposed Action consists of the deployment of a solar-powered Tactical Communication Network System (TCNS) in the Agua Dulce Mountains, CPNWR, to address current gaps in communications capability along the international border south of the Agua Dulce Mountains. TCNS would consist of a small ( 3 foot x 7 foot) TCNS shelter, communications equipment (Codan Repeater), communication antennas, and solar panels. The TCNS is minimal in nature, the equipment would be painted to blend with the background and minimize glare. The system is open and would allow water and diffuse light to pass through to the ground. The shelter would be anchored to the ground using rock anchors and anchoring cables. No digging or excavation would be performed. No heavy equipment such as cranes or bulldozers would be used to install the shelter. No lights would be attached to the antennas or shelter. The TCNS site location is at decimal coordinates (32.02566, -113.14545). Given the weight of the system and remote mountain location, the equipment will be inserted via helicopter lift. The proposed helicopter landing zone is at decimal coordinates (32.02640, -113.14750). Equipment for helicopter lift will be staged at a disturbed site a decimal coordinates (31.97663, -113.13513).

During installation, the area surrounding the shelter would be affected as component pieces of equipment are staged on the ground around the shelter site until carried to the site for installation. For this reason, the area affected during initial construction is larger, but short term. The entire assembly area (including the shelter footprint) is approximately 600 square feet (20' x 30'). The footprint of the shelter (3' x 7') is a smaller, negligible effect over the long term. The only potential invasive disturbance would be the installation of a lightning rod to electrically ground the equipment. This rod would be located within the 21 square foot area, and be placed at a depth no more than 12 inches below ground surface.

The project site is on a remote mountaintop ridge. It is not protected by a security fence, and is accessible only by helicopter, on horseback, or on foot. Due to the weight of the equipment to be installed, all equipment and personnel would be airlifted to the site during the installation phase of the project. Installation would be complete in one day. Thereafter, scheduled maintenance and repair or replacement of faulty equipment would occur once per year by helicopter, on foot, or on horseback depending on season of year (no helicopter access would occur between March 15 and July 15 due to the Sonoran pronghorn [*Antilocapra americana sonoriensis*] fawning season or between September 1 to November 30 due to the Desert Big Horn Sheep [*Ovis canadensis nelsoni*] breeding season. Trips for emergency repairs may be necessary in addition to the annual maintenance trips. Eight round trips are estimated to transport the construction crew and equipment. No access roads, utility lines or permanent helipad would be constructed.

The helicopter landing zone measures 100' x 100' and is approximately 700' from the TCNS shelter location. The helicopter will land twice during the installation to drop off and pick up personnel. Additional trips will be to transport equipment to the TCNS location via external sling loads.

The equipment staging area measures 100' x 100'. Equipment staging will be in a previously disturbed area along the border road used for equipment and material staging during the border wall construction.

#### **DESERT BIG HORN SHEEP**

The CPNWR provides important habitat for desert bighorn sheep (*Ovis canadensis nelsoni*). The protection and conservation of desert bighorn sheep were central to refuge establishment.

Coordination with CPNWR staff indicate installation of equipment or planned maintenance should be scheduled to avoid desert big horn sheep breeding season (September – November).

#### **BEST MANAGEMENT PRACTICES**

The following general best management practices (BMPs) are recommended for implementation. Implementation of these general BMPs, in combination with the species- and habitat-specific measures will reduce construction-related impacts.

**General BMPs**

1. A biological monitor will conduct a site survey prior to equipment staging and installation. Should protected species, or species of concern, be present at the staging, helicopter landing and/or installation sites, the biologist will direct the placement of equipment to avoid these species.
2. If an individual of a Federal-species, or species of concern, is found in the designated Project Area, work will cease in that area until either a qualified biologist can safely remove the individual, or it moves away on its own, to the extent possible, installation schedule permitting.
3. Equipment staging areas will be accessed using only designated roads. This will limit the development of multiple trails to such sites and reduce the effects to Federal-listed habitats.
4. Areas already disturbed by past activities will be used for equipment staging and vehicle parking.
5. To eliminate attracting predators of protected animals, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed daily from the project site.
6. To the greatest extent practicable, no helicopter access would occur between March 15 and July 15 due to the Sonoran pronghorn [*Antilocapra americana sonoriensis*] fawning season or between September 1 to November 30 due to the Desert Big Horn Sheep [*Ovis canadensis nelsoni*] breeding season.
7. During equipment installation and maintenance, helicopters will fly as the highest altitude practicable to minimize noise impacts.

**CONSULTATION WITH UFWS**

Based on the small equipment footprint, minimal installation time (one day), and information received from Cabeza Prieta National Wildlife Refuge staff concerning the probability of federally listed species occurring at the project site(s), CBP has made a determination of No Effect for the following federally listed species: Jaguar, California Least Tern, Yellow-billed Cuckoo, Northern Mexican Gartersnake, and Sonoyat Mud Turtle. Similarly, CBP has made a determination of No Effect for the Graham's nipple cactus (Species of Concern).

CBP has made a determination of Not Likely to Adversely Effect the Sonoran Pronghorn Antelope.

CBP received USFWS concurrent on our effect determination on August 28, 2020.

**CONCLUSION – NO ADVERSE EFFECTS TO DESERT BIG HORN SHEET**

Mike Sumner, AGFD

Page 4

Based on the small equipment footprint, minimal installation time (one day), and information received from Cabeza Prieta National Wildlife Refuge staff concerning the probability of desert big horn sheep occurring at the project site(s), CBP has made a determination of Not Likely to Adversely Effect desert big horn sheep.

We request your concurrence with our determination. If no response is received within 60 days a concurrence will be presumed. If you have any questions please feel free to contact David Walls at 571-230-4476, [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov). Please send correspondence to: US Customs and Border Protection, Border Patrol HQ, 1300 Pennsylvania Ave NW 6.5E Mail Stop 1039, Washington, D.C. 20229 Attn: *Paul Enriquez*. We also request you provide an electronic copy of your response to Mr. Walls at [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov).

Respectfully,



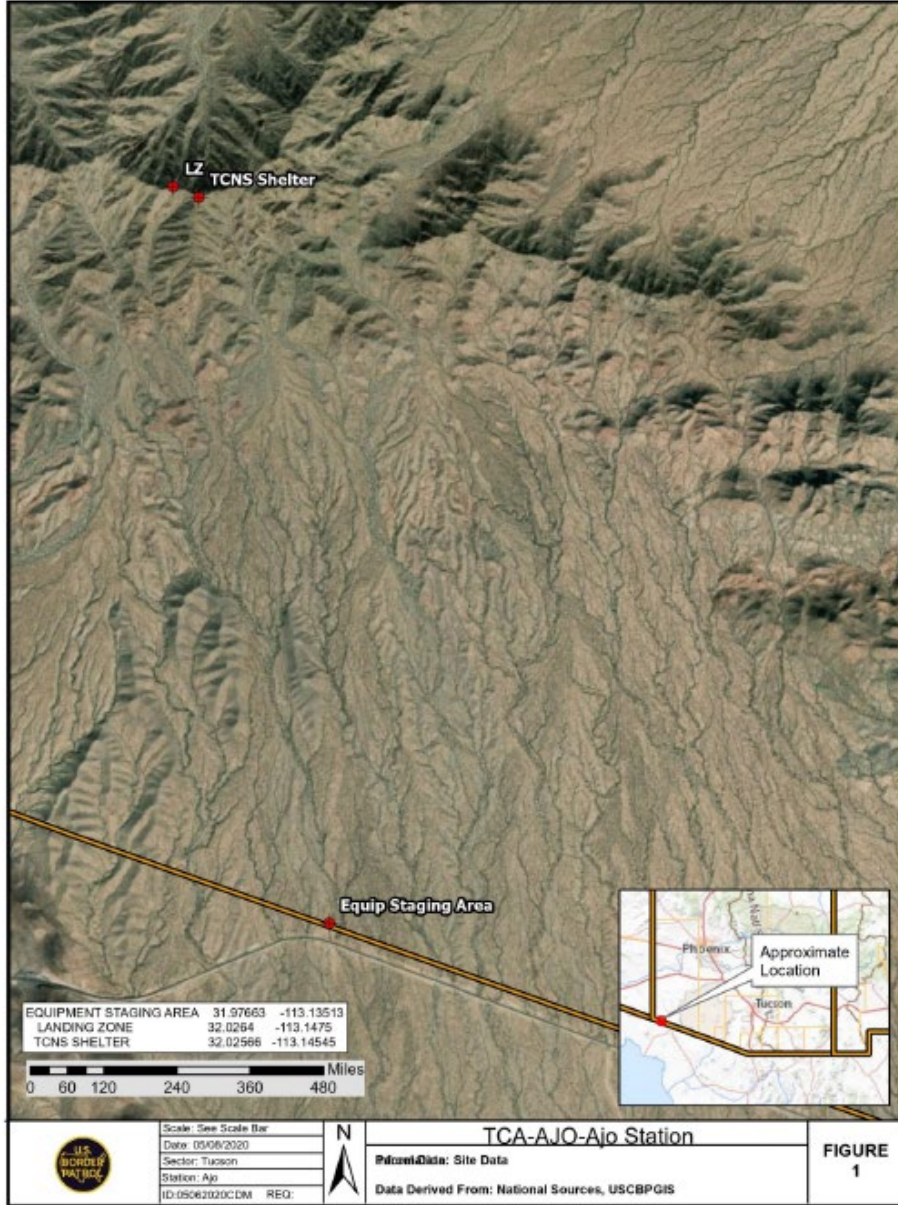
Paul Enriquez  
Director  
Acquisitions, Real Estate, and Environmental  
Program Management Office Directorate  
United States Border Patrol

Enclosures:

- Enclosure 1 Representative Photograph of TCNS Shelter
- Enclosure 2 Project Location – Staging Area, Landing Zone, TCNS Shelter
- Enclosure 3 Project Location – LZ and TCNS Shelter/Mountain Top
- Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top



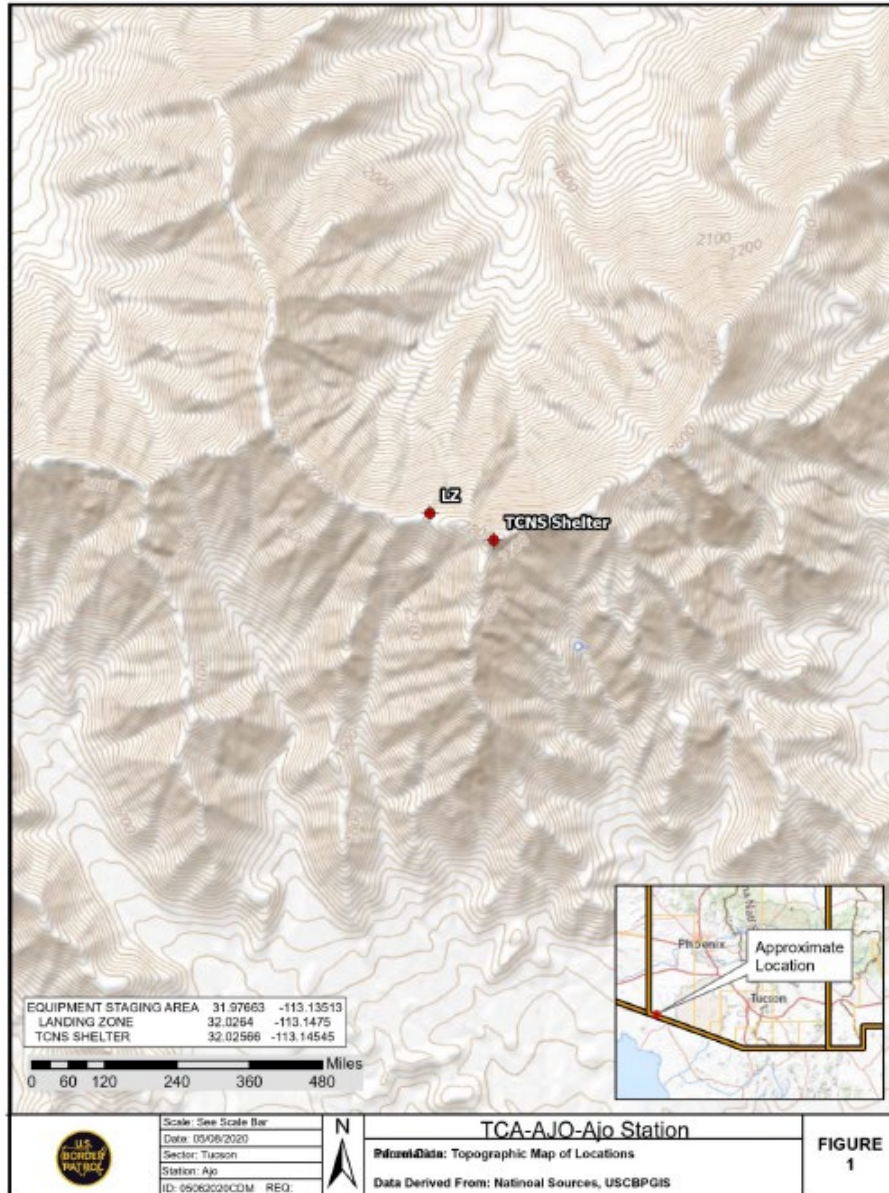
Enclosure 1: Representative Photographic of TCNS Shelter



Enclosure 2: Project Location – Staging Area, Landing Zone, TCNS Shelter



Enclosure 3 Project Location – LZ and TCNS Shelter/Mountain Top



Enclosure 4 Topographic Map – LZ and TCNS Shelter/Mountain Top





January 27, 2021

Mr. Paul Enriquez  
US Customs and Border Protection  
Border Patrol HQ  
1300 Pennsylvania Ave NW, 6.5E Mail Stop 1039  
Washington, D.C. 20229

Electronically submitted to: [david.walls@associates.cbp.dhs.gov](mailto:david.walls@associates.cbp.dhs.gov)

**RE: Proposed Tactical Communications Network System (TCNS), Cabeza Prieta National Wildlife Refuge, Pima County, Arizona**

Dear Mr. Enriquez:

The Arizona Game and Fish Department (Department) appreciates the opportunity to review the proposal for the installation of a Tactical Communications Network System at Cabeza Prieta National Wildlife Refuge in Pima County, Arizona. The Department understands that the TCNS will consist of a small 3' x 7' TCNS shelter, communications equipment (Codan Repeater), communication antennas, and solar panel, which will be inserted using a helicopter. The shelter will be anchored using rock anchors and anchoring cables, with no digging or excavation necessary.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities to protect and conserve the state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's 10(a)1(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations. For your consideration, the Department provides the following comments based on the agency's statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation.

Based on the location, project description, and best management practices (BMPs) outlined therein, the Department concurs with your determination that the project is not likely to adversely affect the Sonoran pronghorn, *Antilocapra americana sonoriensis*, or Desert bighorn sheep, *Ovis canadensis nelsoni*, provided that the BMPs outlined within your letter dated December 14, 2020, are exercised both prior to and during the proposed project activities.

---

**azgfd.gov | 928.342.0091**

**YUMA OFFICE: 9140 E. 28TH ST., YUMA AZ 85365**

**GOVERNOR: DOUGLAS A. DUCEY COMMISSIONERS: CHAIRMAN KURT R. DAVIS, PHOENIX | LELAND S. "BILL" BRAKE, ELGIN  
JAMES E. COUGHNOUR, PAYSON | TODD G. GEILER, PRESCOTT | ERIC S. SPARKS, TUCSON DIRECTOR: TY E. GRAY DEPUTY DIRECTOR: TOM P. FINLEY**

Additionally, the Department would like to encourage Customs and Border Patrol to use the Online Environmental Review Tool (<https://ert.azgfd.gov/>) administered by the Department's Heritage Data Management System (HDMS). This tool is a useful resource that provides baseline information on special status species such as Arizona's Species of Greatest Conservation Need (SGCN) and Species of Economic and Recreational Importance (SERI). The Department entered this project as an example (please see the attached HDMS report created).

The Department appreciates the opportunity to provide input on the proposed Tactical Communications Network System at Cabeza Prieta National Wildlife Refuge in Pima County, AZ. For further coordination, please contact Ian Latella at [ilatella@azgfd.gov](mailto:ilatella@azgfd.gov) or 928-341-4069.

Sincerely,



Michael Sumner  
Regional Supervisor, Yuma

Attachment: HDMS\_report\_CPNWR\_CPB\_TCNS.pdf

AGFD # M21-01215041

# Arizona Environmental Online Review Tool Report



*Arizona Game and Fish Department Mission*

*To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.*

**Project Name:**

Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ

**User Project Number:**

M21-01215041

**Project Description:**

Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ

**Project Type:**

Law Enforcement Activities Associated with the Border, Communication and detection towers (includes SBInet), New structure/tower

**Contact Person:**

Ian Latella

**Organization:**

AZGFD

**On Behalf Of:**

OTHER\_FED

**Project ID:**

HGIS-12683

*Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.*

**Disclaimer:**

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

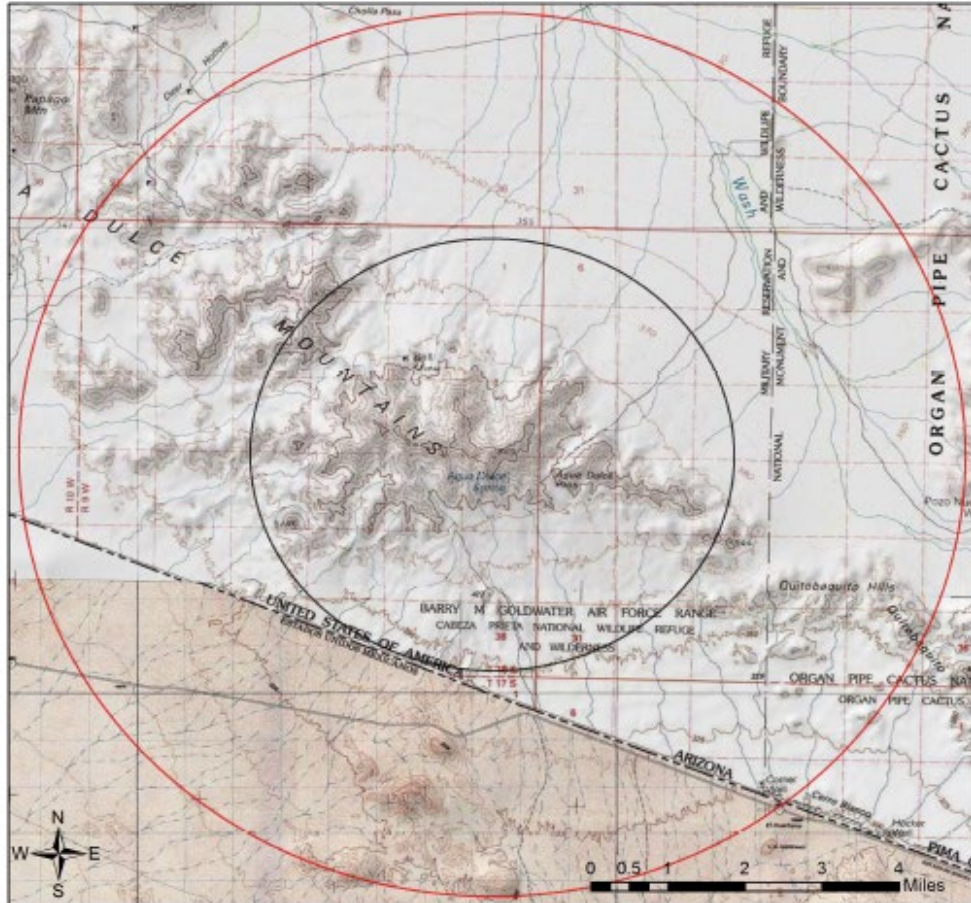
**Locations Accuracy Disclaimer:**

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

**Recommendations Disclaimer:**

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:  
Project Evaluation Program, Habitat Branch  
Arizona Game and Fish Department  
5000 West Carefree Highway  
Phoenix, Arizona 85086-5000  
Phone Number: (623) 236-7600  
Fax Number: (623) 236-7366  
Or  
[PEP@azgfd.gov](mailto:PEP@azgfd.gov)
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ  
 USA Topo Basemap With Locator Map



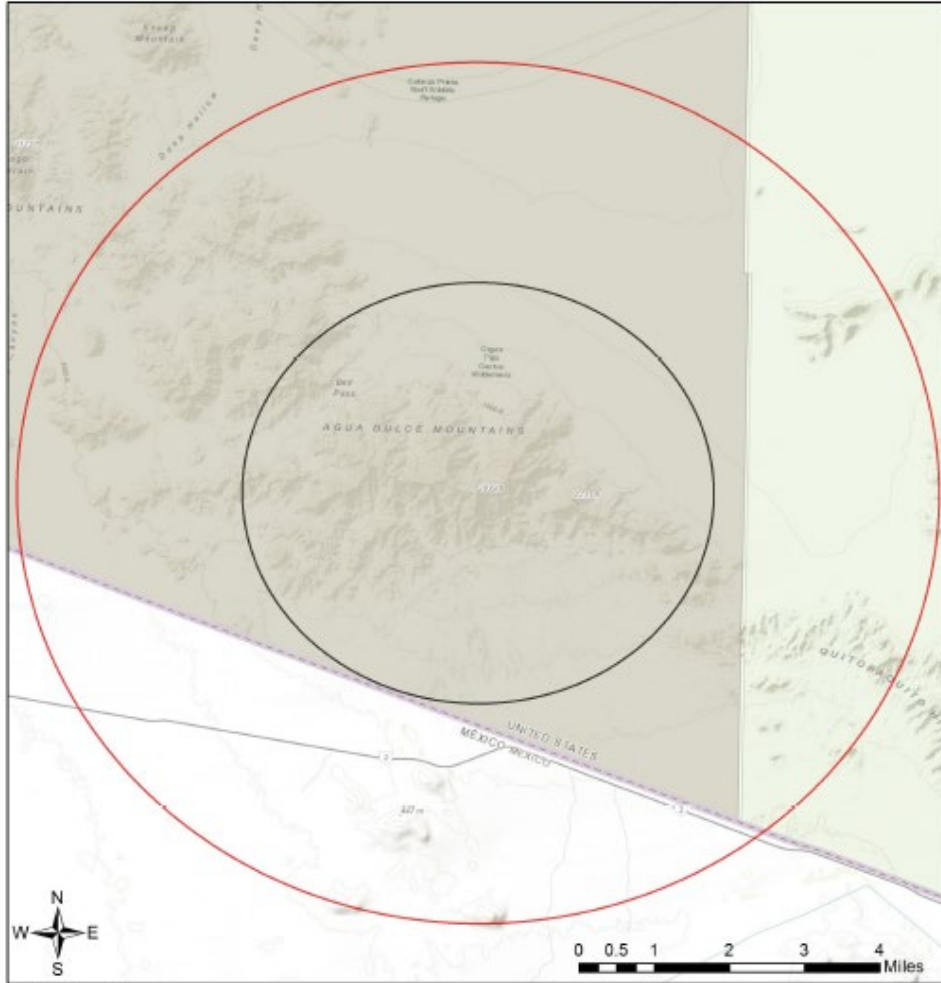
- Project Boundary
- Buffered Project Boundary

Project Size (acres): 18,094.45  
 Lat/Long (DD): 32.0257 / -113.1454  
 County(s): Pima  
 AGFD Region(s): Yuma  
 Township/Range(s): T16S, R8W, T16S, R9W  
 USGS Quad(s): AGUA DULCE MOUNTAINS; POZO NUEVO WELL +

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap



### Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ Web Map As Submitted By User

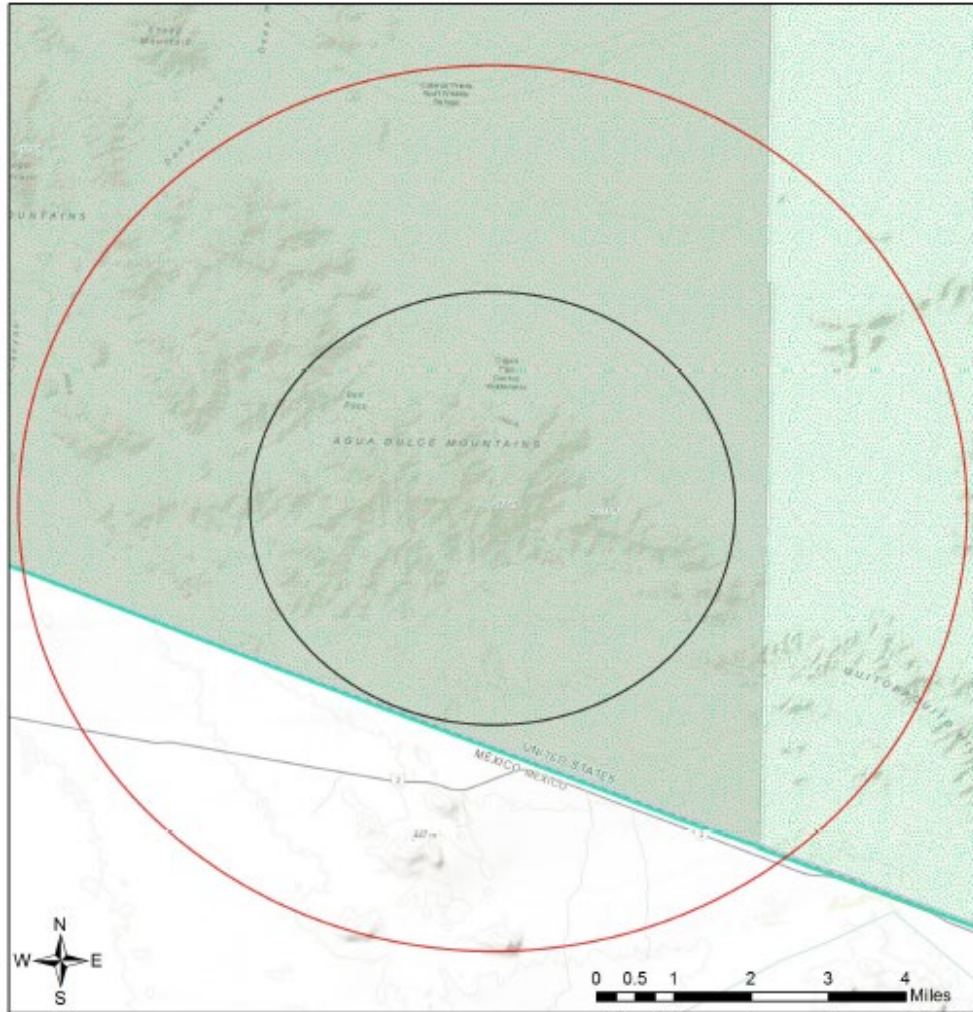


- Project Boundary
- Buffered Project Boundary

Project Size (acres): 18,094.45  
Lat/Long (DD): 32.0257 / -113.1454  
County(s): Pima  
AGFD Region(s): Yuma  
Township/Range(s): T16S, R8W; T16S, R9W  
USGS Quad(s): AGUA DULCE MOUNTAINS; POZO NUEVO

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCo, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

### Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ Important Areas



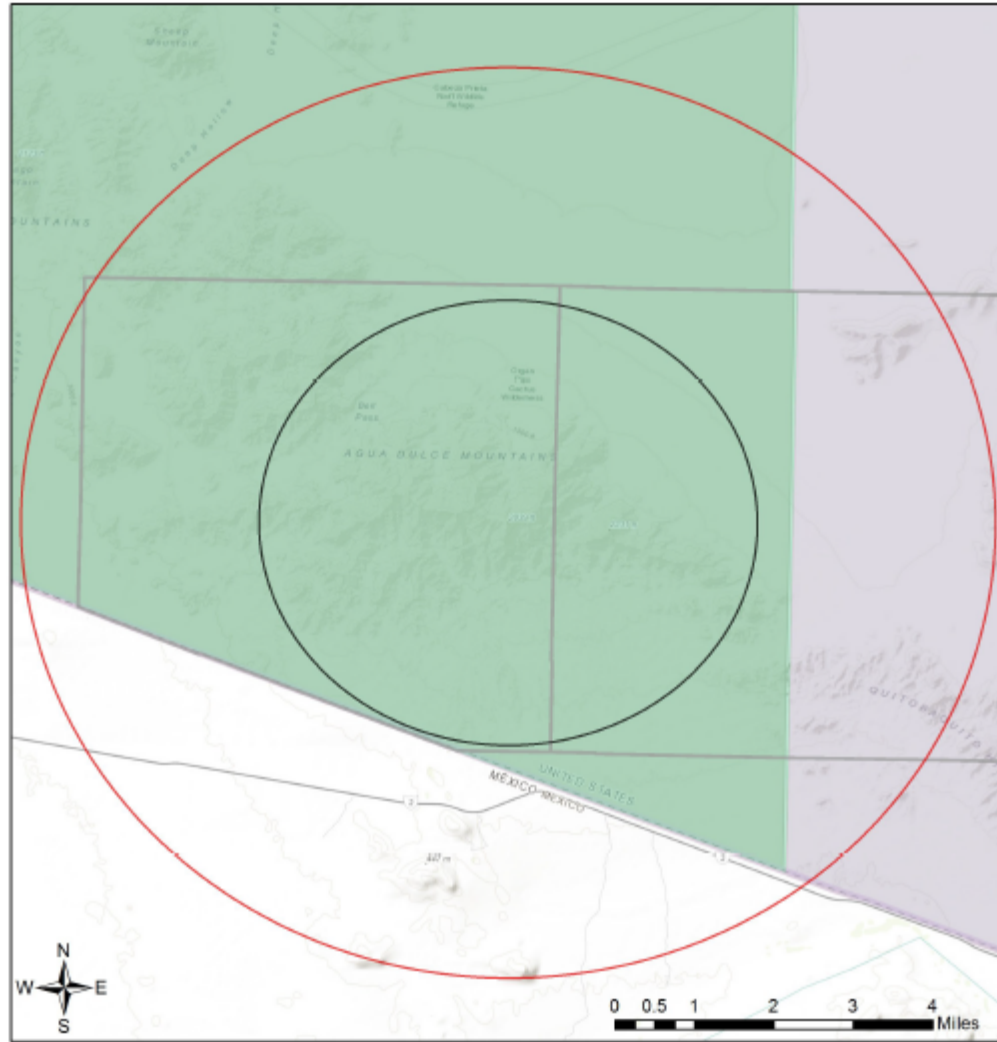
- Project Boundary
- Buffered Project Boundary
- Wildlife Connectivity
- Important Connectivity Zones
- Pinal County Riparian
- Critical Habitat
- Important Bird Areas

Project Size (acres): 18,094.45  
Lat/Long (DD): 32.0257 / -113.1454  
County(s): Pima  
AGFD Region(s): Yuma  
Township/Range(s): T16S, R8W; T16S, R9W  
USGS Quad(s): AGUA DULCE MOUNTAINS; POZO NUEVO

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



### Proposed Tactical Communications Network System, CBNWR, Pima Co. AZ Township/Ranges and Land Ownership



Project Boundary	Military	Project Size (acres): 18,094.45 Lat/Long (DD): 32.0257 / -113.1454 County(s): Pima AGFD Region(s): Yuma Township/Range(s): T16S, R8W; T16S, R9W USGS Quad(s): AGUA DULCE MOUNTAINS; POZO NUEVO
Buffered Project Boundary	Mixed/Other	
Township/Ranges	National Park/Mon.	Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBasis, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
<b>Land Ownership</b>		
AZ Game & Fish Dept.	Private	
BLM	State & Regional Parks	
BOR	State Trust	
Indian Res.	US Forest Service	
	Wildlife Area/Refuge	

**Special Status Species Documented within 3 Miles of Project Vicinity**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Antilocapra americana sonoriensis	Sonoran Pronghorn	LE				1A
Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S			1B
Aspidoscelis xanthonota	Red-backed Whiptail	SC	S			1B
<b>Bat Colony</b>						
Gopherus morafkai	Sonoran Desert Tortoise	C	S	S		1A
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1A
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

**Special Areas Documented that Intersect with Project Footprint as Drawn**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Growler Valley	Pima County Wildlife Movement Area - Diffuse					
Sonoran Desert Borderlands IBA	Important Bird Area					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>

**Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisi	Harris' Antelope Squirrel					1B
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Antilocapra americana sonoriensis	Sonoran Pronghorn	LE,XN				1A
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Aspidoscelis xanthonota	Red-backed Whiptail	SC	S			1B
Athene cucularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Calypte costae	Costa's Hummingbird					1C
Chilomeniscus stramineus	Variable Sandsnake					1B
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallascens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Crotaphytus nebrius	Sonoran Collared Lizard					1B
Euderma maculatum	Spotted Bat	SC	S	S		1B

**Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC		S		1B
<i>Eumops underwoodi</i>	Underwood's Bonneted Bat	SC				1B
<i>Glaucoedon brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C	S	S		1A
<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC, BGA	S	S		1A
<i>Heloderma suspectum</i>	Gila Monster					1A
<i>Incilius alvarius</i>	Sonoran Desert Toad					1B
<i>Lasiurus xanthinus</i>	Western Yellow Bat		S			1B
<i>Leptonycteris yerbabuenae</i>	Lesser Long-nosed Bat	SC				1A
<i>Lepus alleni</i>	Antelope Jackrabbit					1B
<i>Lichanura roseofusca</i>	Rosy Boa	SC				1B
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		1B
<i>Melanerpes uropygialis</i>	Gila Woodpecker					1B
<i>Melospiza lincolni</i>	Lincoln's Sparrow					1B
<i>Micrathene whitneyi</i>	Elf Owl					1C
<i>Micruroides euryxanthus</i>	Sonoran Coralsnake					1B
<i>Myiarchus tyrannulus</i>	Brown-crested Flycatcher					1C
<i>Myotis velifer</i>	Cave Myotis	SC		S		1B
<i>Myotis yumanensis</i>	Yuma Myotis	SC				1B
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					1B
<i>Oreoscoptes montanus</i>	Sage Thrasher					1C
<i>Oreothlypis luciae</i>	Lucy's Warbler					1C
<i>Ovis canadensis mexicana</i>	Mexican Desert Bighorn Sheep					1B
<i>Perognathus amplus cineris</i>	Wupatki Arizona Pocket Mouse	SC				1B
<i>Perognathus amplus</i>	Arizona Pocket Mouse					1B
<i>Phrynosoma goodei</i>	Goode's Horned Lizard					1B
<i>Phrynosoma solare</i>	Regal Horned Lizard					1B
<i>Phyllorhynchus browni</i>	Saddled Leaf-nosed Snake					1B
<i>Spizella breweri</i>	Brewer's Sparrow					1C
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat					1B
<i>Toxostoma lecontei</i>	LeConte's Thrasher			S		1B
<i>Troglodytes pacificus</i>	Pacific Wren					1B
<i>Vireo bellii arizonae</i>	Arizona Bell's Vireo					1B
<i>Vulpes macrotis</i>	Kit Fox		No Status			1B

**Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Antilocapra americana sonoriensis</i>	Sonoran Pronghorn	LE				1A
<i>Callipepla gambelii</i>	Gambel's Quail					
<i>Odocoileus hemionus</i>	Mule Deer					
<i>Ovis canadensis mexicana</i>	Mexicana Desert Bighorn Sheep					1B
<i>Pecari tajacu</i>	Javelina					
<i>Puma concolor</i>	Mountain Lion					
<i>Zenaida asiatica</i>	White-winged Dove					
<i>Zenaida macroura</i>	Mourning Dove					

**Project Type: Law Enforcement Activities Associated with the Border, Communication and detection towers (includes SBlnet), New structure/tower**

**Project Type Recommendations:**

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Consider tower designs and/or modifications that reduce or eliminate impacts to migratory birds (i.e. free standing, minimally lighted structures).

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at <https://www.invasivespeciesinfo.gov/unitedstates/az.shtml> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at <https://imap.natureserve.org/imap/services/page/map.html>.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Based on the project type entered, coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>).

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (<http://www.fws.gov/southwest/es/arizona/>).

**Project Location and/or Species Recommendations:**

HDMS records indicate that one or more Listed, Proposed, or Candidate species or Critical Habitat (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <http://www.fws.gov/southwest/es/arizona/> or:

**Phoenix Main Office**  
9828 North 31st Avenue #C3  
Phoenix, AZ 85051-2517  
Phone: 602-242-0210  
Fax: 602-242-2513

**Tucson Sub-Office**  
201 N. Bonita Suite 141  
Tucson, AZ 85745  
Phone: 520-670-6144  
Fax: 520-670-6155

**Flagstaff Sub-Office**  
SW Forest Science Complex  
2500 S. Pine Knoll Dr.  
Flagstaff, AZ 86001  
Phone: 928-556-2157  
Fax: 928-556-2121

HDMS records indicate that Sonoran Desert Tortoise have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at: <https://www.azgfd.com/wildlife/nongamemanagement/tortoise/>

HDMS records indicate that Lesser Long-nosed Bats have been documented within the vicinity of your project area. Please review the Lesser Long-nosed Bat Management Guidelines at: <https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/FINALlecuycHabitatGdln.pdf>

The analysis has detected one or more Important Bird Areas within your project vicinity. Please see [http://aziba.org/?page\\_id=38](http://aziba.org/?page_id=38) for details about the Important Bird Area(s) identified in the report.

Analysis indicates that your project is located in the vicinity of an identified *wildlife habitat connectivity feature*. The County-level Stakeholder Assessments contain five categories of data (Barrier/Development, Wildlife Crossing Area, Wildlife Movement Area- Diffuse, Wildlife movement Area- Landscape, Wildlife Movement Area- Riparian/Washes) that provide a context of select anthropogenic barriers, and potential connectivity. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: <https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/>. Please contact the Project Evaluation Program ([pep@azgfd.gov](mailto:pep@azgfd.gov)) for specific project recommendations.

# Appendix E: Response to Public Comments

## **Appendix F: Compatibility Determination**

### **COMPATIBILITY DETERMINATION FOR U.S CUSTOMS AND BORDER PROTECTION TCNS RADIO REPEATER ON AGUA DULCE MOUNTAINS WITHIN CABEZA PRIETA NATIONAL WILDLIFE REFUGE**

#### **USE**

The U.S. Customs and Border Protection (CBP) within the Department of Homeland Security (DHS) proposes to obtain a special use or right-of-way permit from Cabeza Prieta National Wildlife Refuge (CPNWR) for the operation and maintenance of Tactical Communications Network System (TCNS) equipment located within the Agua Dulce Mountains. The site is located with Section 24 of Township 16 South, Range 9 West, (map reference: Agua Dulce Mountains, Arizona, 2018 USGS 7.5' topographic quadrangles).

#### **REFUGE NAME**

Cabeza Prieta National Wildlife Refuge  
Pima County, Arizona

#### **ESTABLISHING AND ACQUISITION AUTHORITY**

President Franklin D. Roosevelt established the Cabeza Prieta National Wildlife Refuge on January 25, 1939 by Executive Order 8038.

#### **REFUGE PURPOSES**

1. The refuge was “reserved and set apart for the conservation and development of natural wildlife resources, and for the protection and improvement of public grazing lands and natural forage resources...Provided, however, that all the forage resources in excess of that required to maintain a balanced wildlife population within this range or preserve should be available for livestock...” (Executive Order 8038 January 25, 1939).
2. Enactment of the Arizona Desert Wilderness Act of 1990 designated over 90 percent of the refuge as wilderness and created a supplemental refuge purpose of wilderness protection in accordance with the Wilderness Act of 1964. The Arizona Desert Act of 1990 contained a provision which provided that the wilderness designation would not adversely impact border security including border security operations by those agencies responsible for border security.
3. The National Wildlife Refuge System Administration Act of 1997 (as amended) provides guidance and direction for the management of the national refuge system.

4. Several other Federal policies, regulations, and laws affect refuge management activities. Preeminent among these is the Endangered Species Act of 1973, which mandates the protection and recovery of threatened and endangered species.

### **NATIONAL WILDLIFE REFUGE SYSTEM MISSION**

The mission of the system is 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.

### **DESCRIPTION OF USE**

Reliable land mobile communications is required to successfully execute the border security mission of CBP as well as the administration of CPNWR by refuge personnel. As CBP officers and agents often work in remote areas where commercial communications do not exist, the Tactical Communication Network System (TCNS) is critical to mission execution and vital to officer safety. With the addition of approximately 42 miles of new Border Wall and technology within the Ajo Station AOR, CBP operations will need to forward deploy on the International Boundary Line where there is no radio communications. This area of approximately 187 square miles is very remote and rugged. Radio communications are extremely limited to non-existent south of the Agua Dulce Mountains. The need for the border wall and complementing communications assets is found in Executive Order 13767: Border Security and Immigration Enforcement Improvements. Section 4 of the Executive Order directs the Secretary of Homeland Security to “take steps to obtain complete operational control, as determined by the Secretary, of the southern border”. The Executive Order defines “Operational Control” to mean “the prevention of all unlawful entries into the United States, including entries by terrorists, other unlawful aliens, instruments of terrorism, narcotics, and other contraband”.

CBP proposes to construct and maintain one Tactical Communication Network System (TCNS) radio repeater in the Agua Dulce Mountains on the CPNWR. TCNS will improve tactical communications south of the Agua Dulce Mountains for Federal agents working for CBP. The enhanced border security resulting from installation of TCNS within the Agua Dulce Mountains improves protection of the natural and cultural resources within the refuge, as well as visitor safety.

The Agua Dulce site is a remote, wilderness mountain top, which is only accessible by foot or helicopter. Due to the weight of materials to be transported, a helicopter must be used to establish the site. Maintenance of the communications equipment would require one helicopter trip annually to provide for routine maintenance, and address any emergency situations. This projected level of helicopter trips is similar to the current number of trips required to maintain CBP communication equipment on Buck Peak, Christmas Pass and Granite Mountain.



### **Existing CBP Land Mobile Radio Installation**

Even though the USBP Ajo Station has repeaters for field operations communications, in the present locations, the radio repeaters do not provide sufficient radio coverage for reliable communications south of the Agua Dulce Mountains. This presents serious agent safety issues, as agents are not able to communicate between vehicles, handheld radios, and the USBP Ajo Station Headquarters.

### **AVAILABILITY OF RESOURCES**

Authorizing the construction of a TCNS and associated maintenance of the TCNS will require some expenditure of CPNWR resources, including personnel and funding. DHS will be responsible for the planning, construction, and maintenance of all improvements related to the project, but there will be costs associated with the long-term coordination, monitoring, and evaluation of the TCNS project in combination with other DHS activities. CPNWR resources are extremely limited and when staff time is utilized coordinating with DHS on border related issues, the annual goals and objectives necessary to successfully manage the CPNWR can be impacted.

However, enhanced border security within CPNWR is a shared goal between USFWS and CBP, and the administration and management of the proposed TCNS can be accomplished within existing financial and personnel resources available to the CPNWR.

### **ANTICIPATED IMPACT OF THE TCNS RADIO REPEATER**

The Agua Dulce Mountains are within the CPNWR wilderness area. Section 4(c) of the Wilderness Act of 1964 generally prohibits the placement of any type of permanent infrastructure in wilderness, except as necessary to meet minimum requirements for the administration of the area for the purpose of the Wilderness Act. However, the Arizona Desert Wilderness Act of 1990 contained a provision which provided that the wilderness designation would not adversely impact border security including operations by those agencies responsible for border security.

In 2006 the Department of Homeland Security entered into a Memorandum of Understanding (MOU) with the Department of the Interior and the Department of Agriculture regarding cooperative national security efforts on Federal lands along the U.S. Border. The MOU specifically states, “The parties are committed to preventing illegal entry into the United States, protecting Federal lands and natural and cultural resources, and – where possible – preventing adverse impacts associated with illegal entry by cross border violators.” Section IV(B)(6) of the MOU allows for the installation or construction of tactical infrastructure on DOI lands, including areas, designated as wilderness provided a minimum requirements analysis is completed to find the action necessary and the minimum tools to complete the action assessed.

The 2006 CPNWR Comprehensive Conservation Plan, Wilderness Stewardship Plan, and Environmental Impact Statement, references the 2006 MOU in addition to cooperative activities such as joint operation and the deployment of remotely operated sensors. However, surveillance and communication installations were not mentioned or evaluated in the CCP.

CBP proposes to place the TCNS at a site within the CPNWR. We believe the TCNS, if effective, will be a tool to provide reliable communication in the rugged and remote terrain along the border and better assist in identification and interdiction of illegal activities.

Therefore, the TCNS, if effective, will be a useful tool and have a positive impact on wilderness stewardship within the wilderness area.

### **Direct Impacts**

Direct impacts from issuance of this permit are minor and will occur over both the short term and the long term.

The short term direct impacts are associated with establishment of the TCNS site. CBP anticipates up to eight helicopter round trips will be required to transport materials and personnel to the site to enable construction of the TCNS radio repeater. The helicopter staging area and flight routes will be determined in consultation with the refuge manager.

There will be minimal site disturbance either short term or long term. The footprint of the TCNS is approximately 21 square feet. The TCNS shelter will sit on the ground and be secured using rock anchors. A grounding system would be necessary to minimize lightning damage to the communication equipment. It would require covering the grounding cables with the natural rocks found on-site. There will be no measurable vegetation disturbance. There could be some local disturbance to wildlife, but these effects would be minimal. The TCNS's primary power source is solar. Batteries are housed in the enclosed shelter as a backup power source.

### **Indirect Impacts**

CBP's deployment of TCNS equipment on the Agua Dulce Mountains is a key element of a comprehensive strategy to improve identification and interdiction of illegal activities in the eastern portion of the CPNWR. Without this communication capability, it is expected that illegal traffic would continue and lead to more direct and indirect impacts on refuge trust resources including designated wilderness. Reduction in the level of human activity associated with cross border violators resulting in part from communication infrastructure in the Agua Dulce Mountains may contribute to lessened impact to wilderness character and the habitat for the great variety of wildlife found on the refuge both resident and migratory in the southeastern portion of the CPNWR.

Other trust resources which benefit from improved CBP communications include: a reduction on the amount of trash within the CPNWR. The area has numerous congregation spots that are saturated with litter, clothes, and human excrement. A reduced number of cross border violators will also result in a reduction in the number of wildfires occurring

on the refuge. Reduced levels of cross border activities, in this area, is also believed to result in improved visitor safety and experience as well as safety for Refuge staff.

### **Visitor Use**

Most visitors come to the refuge to watch wildlife, observe the Sonoran Desert vista, camp, and hike. Visitors recreating near the Agua Dulce Mountains may be able to observe the TCNS resulting in a degradation of the undeveloped quality of wilderness character. However, if effective, the Agua Dulce Mountain TCNS project will significantly reduce the amount of illegal traffic and resulting off road interdiction activities by CBP. This decrease in off road impacts will substantially improve the wilderness quality of the refuge.

### **CONCLUSION**

CPNWR shares 56 miles of International border with Mexico and has experienced substantial, widespread degradation of trust resources from illegal smuggling activities and subsequent interdiction efforts. The CBP land mobile radio and tower communication relay systems are key components of the overall border security strategy in the refuge and adjacent monument. This border security strategy has resulted in increased apprehensions of individually illegally entering and/or illegally smuggling contraband into the U.S. and thus deterred illegal smuggling activities occurring within areas covered by the Ajo-1 project. The establishment of sensor towers and communication sites has reduced the need for CBP to conduct off road interdiction efforts in the CPNWR, and therefore improved the protection of wilderness character, the endangered Sonoran pronghorn, and other trust resources.

The charge of this document is for the CPNWR to analyze whether the request by CBP for a special use permit or right of way permit to establish and maintain a TCNS site in the Agua Dulce Mountains will materially interfere or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposed of CPNWR. A Compatibility Determination is made by the Refuge Manager using sound professional judgment. Any decision must be consistent with the principles of sound fish and wildlife management and administration, available science and resources, and adhere to the requirements of applicable laws and Service policies. Considered as part of this finding, determination, or decision is a Refuge Manager's field experience and knowledge of the particular refuge resources.

The construction, operation, and maintenance of the TCNS on Agua Dulce Mountains will have a minor, short term and long term direct adverse effect to wilderness character within the eastern portion of CPNWR. However, in passage of the Arizona Desert Wilderness Act, Congress has already determined that this adverse effect is consistent with the CPNWR wilderness designation by specifically authorizing border security activities. In addition, the CBP communication infrastructure has already resulted in the increased apprehension and deterrence of illegal activities, a decrease in the amount of off road damage resulting from CBP interdiction of illegal smuggling activities, improved security for the CPNWR staff, volunteers, and visitors. Given the benefits of this communication infrastructure, it is reasonable to conclude that issuance of a special use or right of way

permit for the placement of CBP TCNS radio repeater will not materially interfere or detract from the fulfillment of the National Wildlife Refuge System Mission or the purposes for which the refuge was established, including the Arizona Desert Wilderness Act of 1991.

### **PUBLIC REVIEW AND COMMENT**

The National Wildlife Refuge System Improvement Act of 1997 requires the Refuge Manager to provide an opportunity for public review and comment for all compatibility determinations. The purpose of the review is to offer the public the opportunity to provide relevant information regarding the compatibility of the proposed use. The Refuge Manager must consider all information provided during the public review and comment period. The Refuge Manager must consider all information provided during the public review and comment period. The Refuge Manager is not required to respond but will use all information available to make the most informed decision possible.

Public review and comment will be solicited for this compatibility determination for a 15 day period beginning \_\_\_\_\_ and ending \_\_\_\_\_. The availability of the compatibility determination will be announced through a press release in the Arizona Daily Star and the Ajo Copper News. There will also be public notices posted in the Ajo Post Office, and Public Library. This document will also be posted on the Cabeza Prieta NWR's webpage.

### **DETERMINATION**

\_\_\_\_\_ Use is Not Compatible

\_\_\_\_\_ Use is Compatible with the Following Stipulations

### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY**

For successful implantation of this project on CPNWR and consistent with the March 2006, MOU between DHS, DOI, and USDA, DHS and their contractors must cooperate closely with the CPNWR to implement measures to minimize and/or eliminate the adverse environmental impacts their activities have had and will have on the refuge. DHS must be held accountable for their activities and commit to cooperate with the CPNWR to avoid future and reverse existing adverse environmental impacts. Construction and operation of the TCNS is approved if DHS agrees to the stipulations below:

#### **Stipulation 1:**

CBP will coordinate with Cabeza Prieta NWR to develop and implement a Decommissioning and Restoration Plan for CBP communication infrastructure on the Agua Dulce Mountains. This plan must include both site cleanup and habitat restoration.

**Stipulation 2:**

As appropriate, any SUP for the construction of the TCNS site will be replaced by a right-of-way permit issued by the U.S. Fish and Wildlife Service once the installation is completed. Should USFWS find CBP out of compliance and unable to satisfy the Refuge Manager's direction for meeting the conditions of the special use permit, or subsequent right of way permit, USFWS shall issue in writing to CBP of the intent to immediately terminate the permit until such time as CBP is in compliance. In case of such a notice, CBP and the CPNWR will expeditiously work together to seek resolution of the outstanding permit conditions.

**Stipulation 3:**

CBP will provide monthly reports that summarize illegal activities and off road interdiction actions occurring on the refuge in accordance with the 2006 MOU;

**Stipulation 4:**

A new compatibility determination will be made within 10 years or upon renewal of any future right of way granted, whichever comes first, unless the terms and conditions of the right of way permit specifically allows for modifications to the terms and conditions, if necessary, to ensure compatibility.

**Environmental Compliance:**

CBP is currently consulting with USFWS per Sec. 7 of the Endangered Species Act of 1973, as amended. Upon completion of the Sec. 7 consultation, any mitigation measures, if needed, will be incorporated into the appropriate NEPA document and the final decision for implementing this action.

**JUSTIFICATION**

CBP communication infrastructure (TCNS Radio Repeater) on Agua Dulce Mountain is required to meet CBP's border security mission within CPNWR. CBP's communication infrastructure is essential to ensure CBP communication among agents and with the Ajo Border Patrol Station in the eastern portion of CPNWR. Current communications along the border south of the Agua Dulce is ineffective and posed risk to patrol agents and CPNWR staff who may operate in this area. Locating a radio repeater on Agua Dulce is the best course of action for improving communication in this area of the refuge.

# Appendix G: Minimum Requirements Analysis



ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

# MINIMUM REQUIREMENTS DECISION GUIDE WORKBOOK

*"...except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act..."*

-- The Wilderness Act of 1964

**Project Title:** **Tactical Communications Network System (TCNS)  
Agua Dulce Mountains Cabeza Prieta National Wildlife  
Refuge**

## MRDG Step 1: Determination

*Determine if Administrative Action is Necessary*

### Description of the Situation

*What is the situation that may prompt administrative action?*

The Cabeza Prieta National Wildlife Refuge (CPNWR) consists of approximately 860,000 acres of which 803,418 acres were designated as wilderness under the Arizona Desert Wilderness Act of 1990. CPNWR shares approximately 56 miles of international border with Mexico. Consequently, CPNWR is a major travel corridor for illegal smuggling. The eastern third of CPNWR is within the Ajo Border Patrol Station Area of Responsibility (AOR) and the western two thirds of CPNWR are within the Wellton Border Patrol Station AOR. As the largest and one of the most remote refuges in the lower 48 states, communication among refuge field staff is essential to the successful execution of the refuge mission, as well as the safety of refuge employees and visitors. CPNWR has completed Minimum Requirement Analyses, which determined that placement of radio repeaters in strategic locations within the Cabeza Prieta Wilderness is an acceptable use.

It is necessary to deliver reliable communications to successfully execute the border security mission of CBP as well as the administration of CPNWR by refuge staff. As CBP agents and CPNWR staff often work in remote areas where commercial communications do not exist, a reliable communications network is critical to mission execution and vital to agent and CPNWR staff safety. With the addition of 42 miles of new Border Wall and technology within

the Ajo Station AOR, CBP operations will need to forward deploy on the International Boundary Line where there is no radio communications. This area of approximately 187 square miles is very remote and rugged. Radio communications are extremely limited to non-existent south of the Agua Dulce Mountains.

CPNWR has received a request from CBP to establish a Tactical Communications Network System (TCNS) radio repeater on the Agua Dulce Mountains. A solar cell array and battery bank would be used to provide power for all electronic equipment required for these uses, all equipment would be mounted on a single sled approximately 7 feet long by 3 feet wide. The Shelter and antennae would be painted to blend into the natural setting.

#### Options Outside of Wilderness

*Can action be taken outside of wilderness that adequately addresses the situation?*

- YES **STOP – DO NOT TAKE ACTION IN WILDERNESS**  
 NO **EXPLAIN AND COMPLETE STEP 1 OF THE MRDG**

Explain:

Radio signals travel by line of sight. There is no other single location which provides a line-of-sight connection for tactical communications along the international border south of the Agua Dulce Mountains. Alternate line of sight signal paths would still require at least one communication tower relay installation within designated wilderness. The TCNS repeater on the Agua Dulce Mountains is strategically located to maximize communication among CBP agents operating in the eastern portion of the refuge.

#### Criteria for Determining Necessity

*Is action necessary to meet any of the criteria below?*

##### A. Valid Existing Rights or Special Provisions of Wilderness Legislation

*Is action necessary to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that **requires** action? Cite law and section.*

- YES  NO

Explain:

Section 301 (g) of the Arizona Desert Wilderness Act of 1990 (Public Law 101-628), which established the Cabeza Prieta National Wildlife Refuge Wilderness, states:

*"LAW ENFORCEMENT BORDER ACTIVITIES- Nothing in this title, including the*



*designation as wilderness of lands within the Cabeza Prieta National Wildlife Refuge, shall be construed as--*

*(1) precluding or otherwise affecting continued border operations by the Immigration and Naturalization Service, the Drug Enforcement Administration, or the United States Customs Service within such refuge, in accordance with any applicable interagency agreements in effect on the date of enactment of this Act; or*

*(2) precluding the Attorney General of the United States or the Secretary of the Treasury from entering into new or renewed agreements with the Secretary concerning Immigration and Naturalization Service, Drug Enforcement Administration, or United States Customs Service border operations within such refuge, consistent with management of the refuge for the purpose for which such refuge was established, and in accordance with laws applicable to the National Wildlife Refuge System."*

Continued border security operations are therefore valid existing activities, which Congress specifically provided "shall" continue within the Cabeza Prieta Wilderness. The purposes of this project are: (1) to improve border security operational effectiveness and efficiency, and (2) enhance agent, government staff, and public safety within this wilderness area.

#### **B. Requirements of Other Legislation**

*Is action necessary to meet the requirements of other federal laws? Cite law and section.*

YES  NO

Explain:

#### **C. Wilderness Character**

*Is action necessary to preserve one or more of the five qualities of wilderness character?*

UNTRAMMELED

YES  NO

Explain:

Human activities and influences across the refuge are localized and site-specific in nature, and overall conditions on the refuge are not subject to human controls or manipulations. In conformance with the untrammelled quality of wilderness, natural forces predominate in the refuge wilderness.

UNDEVELOPED

YES  NO

Explain:

Installation, operation and maintenance of the TCNS repeater will result in no measurable change on the current, undeveloped nature of the Cabeza Prieta Wilderness.

NATURAL

YES  NO

Explain:

CBV activities, including trash left behind and off-road vehicle travel have impacted the natural character of the Cabeza Prieta Wilderness. Deployment of an effective communication system reduces the overall level of CBV activity, as CBVs select other locations to enter the US where communication and surveillance technology has not been deployed. Reduction in overall numbers of CBVs, and restriction of their activities to a narrower band of land along the border, significantly reduces impacts of CBV activities as well as the CBP law enforcement response on the natural character of the Cabeza Prieta Wilderness Area.

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

YES  NO

Explain:

The estimated 8 helicopter trips planned over one day to complete the installation of the TCNS radio repeater will result in some potential disturbance to users within the Cabeza Prieta Wilderness. Similarly, rock drilling during installation will also result in potential auditory impacts on wilderness users. Noise impacts within the wilderness area will be limited to a few hours over a single day. Annual maintenance access of 1 helicopter trip per year could also result in potential short-term noise impacts on wilderness users.

The extent to which the public is discouraged from using the Cabeza Prieta Wilderness for primitive and unconfined recreational use because of smuggling and other illegal activities is unknown, but it is reasonably certain that some people avoid this opportunity due to the illegal activities. To the extent that improved communications resulting from the TCNS installation assists CBP in carrying out its mission to stop CBVs, the opportunity for the public to enjoy the Cabeza Prieta Wilderness character will be enhanced. Therefore, the short term, localized impacts of project noise are offset by the long-term benefits of reduced CBV activities.

OTHER FEATURES OF VALUE

YES  NO

Explain:

Historic and prehistoric cultural resources are a significant feature within the Cabeza Prieta Wilderness Area, and reflect a character value of wilderness. Due to CBV activity, some cultural resource sites have been adversely impacted. A reduction in CBV activity would have a positive benefit to this attribute of the Cabeza Prieta Wilderness character.

### Step 1 Decision

Is administrative action necessary in wilderness?

#### Decision Criteria

- |  |   |  |
|--|---|--|
| A. Existing Rights or Special Provisions | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| B. Requirements of Other Legislation     | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| C. Wilderness Character                  |   |  |
| Untrammeled                              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| Undeveloped                              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| Natural                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| Outstanding Opportunities                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| Other Features of Value                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |

Is administrative action necessary in wilderness?

- YES **EXPLAIN AND PROCEED TO STEP 2 OF THE MRDG**  
 NO **STOP – DO NOT TAKE ACTION IN WILDERNESS**

Explain:

As stated under Step 1, "Options Outside Wilderness," there is no other non-wilderness, single site for a communication relay facility that would provide reliable communications for CBP agents and CPNWR staff working along the international border south of the Agua Dulce Mountains.

*The Arizona Desert Wilderness Act of 1990* provides that border security infrastructure, such as communication infrastructure, are a valid existing right.

Taking administrative action will benefit the natural character of wilderness, provide an

environment that will contribute to an increase in unconfined recreational opportunities, reduce impacts to cultural resources, and enhance the safety of CBP agents, refuge staff, and the public at large. Taking administrative action is also necessary to meet the immediate operational needs of CBP to help secure the border and meets conditions described in the Arizona Wilderness Act of 1990 of not "*precluding or otherwise affecting continued border operations by [CBP]...*"

## MRDG Step 2

Determine the Minimum Activity

### Other Direction

Is there "special provisions" language in legislation (or other Congressional direction) that explicitly **allows** consideration of a use otherwise prohibited by Section 4(c)?

#### AND/OR

Has the issue been addressed in agency policy, management plans, species recovery plans, or agreements with other agencies or partners?

- YES **DESCRIBE OTHER DIRECTION**  
 NO **SKIP AHEAD TO TIME CONSTRAINTS BELOW**

Describe Other Direction:

The "Memorandum of Understanding Among U.S. Department of Homeland Security and U.S. Department of the Interior and U.S. Department of Agriculture Regarding Cooperative National Security and Counterterrorism Efforts on Federal Lands along the United States' Borders" signed in 2006, intended to provide "**goals, principles, and guidance related to border security, such as law enforcement operations; tactical infrastructure installation; utilization of roads; minimization and/or prevention of significant impact on or impairment of natural and cultural resources; implementation of the Wilderness Act, Endangered Species Act, and other related environmental law, regulation, and policy ...**". The MOU further states, "CBP may request, in writing, that the land management agency authorize installation or construction of tactical infrastructure ... In areas designated or managed as wilderness, the local Federal land manager, in consultation with CBP, will promptly conduct a 'minimum requirement,' ... If supported by such analysis, the local Federal land manager will expeditiously authorize CBP to install such infrastructure ...".

### Time Constraints

What, if any, are the time constraints that may affect the action?

The deployment/installation of the TCNS is currently scheduled to begin on or about October 1, 2020. Action to provide sufficient radio communication south of the Agua Dulce Mountains is imperative on the mission of CBP to engage all CBV traffic at the new border barrier, the construction of which is to be concluded as of this December. Engagement at the barrier would have much less impact on the refuge and wilderness area at large.

**Components of the Action**

*What are the discrete components or phases of the action?*

Component X: *Example: Transportation of personnel to the project site*

Component 1:	Transportation of equipment and personnel to/from the Agua Dulce Mountain site
Component 2:	Installation of the Tactical Communications Network System (TCNS) equipment
Component 3:	Condition of Agua Dulce Mountain site after the construction project
Component 4:	Annual maintenance via helicopter access
Component 5:	
Component 6:	
Component 7:	
Component 8:	
Component 9:	

**Proceed to the alternatives.**

Refer to the [MRDG Instructions](#) regarding alternatives and the effects to each of the comparison criteria.

## MRDG Step 2: Alternatives

Helicopter Access to/from Agua Dulce Mountains to enable construction and maintenance of a Tactical Communications Network System

**Alternative 1:**

**Description of the Alternative**

*What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?*

On or about October 1, 2020, installation of the Agua Dulce Mountain TCNS radio repeater is scheduled to begin. Over a period of one day, an estimated 8 helicopter trips to Agua Dulce Mountain will be required. These helicopter trips will include use of a Bell 206L-3. The helicopter trips are required to transport equipment and personnel from the staging site south of the Agua Dulce Mountains to the project location. After the radio repeater is constructed, one annual maintenance trip by helicopter per year will be required.

**Component Activities**

*How will each of the components of the action be performed under this alternative?*

	<u>Component of the Action</u>	Activity for this Alternative
X	<i>Example: Transportation of personnel to the project site</i>	<i>Example: Personnel will travel by horseback</i>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	Personnel and equipment will be transported by helicopter
2	Construction of the TCNS site	On-site assembly of the communication site.
3	Condition of the Agua Dulce Mountain site after the construction project	No change from current condition
4	Annual maintenance	Personnel and equipment will be transported by helicopter
5		
6		
7		
8		

9		
---	--	--

**Wilderness Character**  
*What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?*

UNTRAMMELED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Construction of the TCNS Radio Repeater	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Condition of Agua Dulce Mountain site after the construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Annual maintenance via helicopter access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects				NE
<u>Untrammeled Total Rating</u>		<b>0</b>		

Explain:

Across the refuge, the untrammeled nature of the landscape will continue to predominate and the project will have no impact on the untrammeled character of the refuge.

UNDEVELOPED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Construction of the TCNS Radio Repeater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



3	Condition of Agua Dulce Mountain site after the construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Annual maintenance via helicopter access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			-1	NE
<b>Undeveloped Total Rating</b>		<b>-1</b>		

Explain:

During TCNS installation, the helicopter will land only two times, to drop off and extract personnel. Equipment will be delivered via helicopter using sling loads. Thereafter, helicopters will land on the site one time annually for maintenance. Therefore, there will be no short or long-term impacts because of the helicopter landing. The footprint of the TCNS shelter and radio repeater is 3 feet wide by 7 feet long. At a total square footage of less than 30 square feet, the TCNS installation footprint is insignificant.

NATURAL

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Construction of the TCNS Radio Repeater	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Condition of Agua Dulce Mountain site after the construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Annual maintenance via helicopter access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Number of Effects			NE
<b>Natural Total Rating</b>	<b>0</b>		

Explain:

The project would have no effect on the natural qualities of the Cabeza Prieta Wilderness.

SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Construction of the TCNS Radio Repeater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Condition of Agua Dulce Mountain site after the construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Annual maintenance via helicopter access	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			-3	NE
<b><u>Solitude or Primitive &amp; Unconfined Rec. Total Rating</u></b>		<b>-3</b>		

Explain:

Helicopter noise would have a short term adverse effect on the wilderness experience for any persons within acoustical range of the helicopter. Construction activities on Agua Dulce Mountain, specifically drilling for installation of rock anchors and grounding rods would also result in short term acoustical impacts on the wilderness character of the Cabeza Prieta Wilderness. Total duration of these acoustical impacts from helicopter access and rock drilling within the wilderness area is not expected to exceed several hours. One helicopter trip per year to perform annual maintenance could also result in short term noise impacts on wilderness users.

OTHER FEATURES OF VALUE

<u>Component Activity for this Alternative</u>	Positive	Negative	No Effect
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X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Transportation of equipment and personnel to/from the Agua Dulce Mountain site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Construction of the TCNS Radio Repeater	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Condition of Agua Dulce Mountain site after the construction project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Annual maintenance via helicopter access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects				NE
<b><u>Other Features of Value Total Rating</u></b>		<b>0</b>		

Explain:

Cultural resources have been identified as a feature of value within the Cabeza Prieta Wilderness. Based on records searches no archaeological or cultural resources are expected to be present at the project site. The project would have no impact on cultural resources.

<b>Summary Ratings for Alternative 1</b>
--

Wilderness Character	
<a href="#">Untrammeled</a>	0
<a href="#">Undeveloped</a>	-1
<a href="#">Natural</a>	0
<a href="#">Solitude or Primitive &amp; Unconfined Recreation</a>	-3
<a href="#">Other Features of Value</a>	0
<b>Wilderness Character Summary Rating</b>	<b>-4</b>

## MRDG Step 2: Alternatives Not Analyzed

### Alternatives Not Analyzed

*What alternatives were considered but not analyzed? Why were they not analyzed?*

Alternatives to the proposed action are:

(1) Find a location for the TCNS outside of the boundaries of the Refuge.

*Rationale for Elimination of the Alternative:* There are no peaks on lands outside the Refuge that provide the radio signal coverage strength and area that the Agua Dulce Mountain site provides to all the agencies involved in the proposed project. At sites outside CPNWR, Refuge staff, CBP and other law enforcement agencies lose radio coverage of areas that an Agua Dulce Mountain facility would cover. The ability of the CPNWR to protect wilderness resources and values may be diminished by a communications system that does not provide optimum coverage. Health and safety of the public and government employees would be compromised by the installation of a system that does not maximize the coverage and quality of radio communications.

This alternative does not meet the need and objectives of the proposed action and was eliminated from detailed study.

(2) Use satellite phones for backcountry and patrol work in areas of unreliable communications.

*Rationale for Elimination of the Alternative:* This alternative was found to be unsatisfactory based on several factors: satellite phones do not support sensor operations and do not allow immediate communications; agents are unable to use this technology during a physical confrontation; each agent working in the backcountry would need a satellite phone. This many phones would be cost prohibitive. Due to the insufficient capabilities of satellite phones relative to the needs of CBP, this alternative was excluded from further consideration and analysis.

The proposed TCNS technology is the only available communications equipment that would ensure adequate encryption for law enforcement personnel, coverage throughout the remote portions of the Ajo Station Area or Responsibility, and lack of interference from other communications systems.

(3) Using stock animals to carry equipment and personnel to site

*Rationale for Elimination of the Alternative:* This alternative is flawed on the fact that there are no current trails to reach the site or a preferred site within the Agua Dulce Mountains. Due to this fact, stock animals would create a dangerous and likely impossible path to the site. If a path were developed, it would create a larger degradation in wilderness character throughout a long period of time. Overall, the action may end up being insufficient due to the weight and size of some of the equipment to be installed.

## MRDG Step 2: Alternative Comparison

<a href="#">Alternative 1:</a>	Helicopter Access to/from Agua Dulce Mountains to enable construction and maintenance of a Tactical Communications Network System
<a href="#">Alternative 2:</a>	
<a href="#">Alternative 3:</a>	
<a href="#">Alternative 4:</a>	

Wilderness Character	<a href="#">Alternative 1</a>		<a href="#">Alternative 2</a>		<a href="#">Alternative 3</a>		<a href="#">Alternative 4</a>	
	+	-	+	-	+	-	+	-
Untrammeled	0	0						
Undeveloped	0	-1						
Natural	0	0						
Solitude/Primitive/Unconfined	0	-3						
Other Features of Value	0	0						
Total Number of Effects	0	-4						
<b>Wilderness Character Rating</b>	-4							

## MRDG Step 2: Determination

Refer to the [MRDG Instructions](#) before identifying the selected alternative and explaining the rationale for the selection.

Selected Alternative	
<input checked="" type="checkbox"/> <a href="#">Alternative 1:</a>	Helicopter Access to/from Agua Dulce Mountains to enable construction and maintenance of a Tactical Communications Network System
<input type="checkbox"/> <a href="#">Alternative 2:</a>	
<input type="checkbox"/> <a href="#">Alternative 3:</a>	
<input type="checkbox"/> <a href="#">Alternative 4:</a>	
<input type="checkbox"/> <a href="#">Alternative 5:</a>	
<input type="checkbox"/> <a href="#">Alternative 6:</a>	
<input type="checkbox"/> <a href="#">Alternative 7:</a>	
<input type="checkbox"/> <a href="#">Alternative 8:</a>	

Explain Rationale for Selection:

Establishment of a reliable CPNWR radio repeater to ensure communication among CBP agents using the eastern portion of the refuge will enhance protection of wilderness resources. The project is expected to increase visitor safety, and therefore opportunities for solitude and unconfined recreation within the wilderness areas. Finally, the project is expected to enhance protection of natural and cultural resources within the wilderness areas. CBP border security activities within the Cabeza Prieta Wilderness are specifically authorized in the 1990 Arizona Desert Wilderness Act, as well as subsequent statutory implementation guidance. Impacts to the Cabeza Prieta Wilderness are primarily acoustical impacts arising from helicopter access during construction and subsequent maintenance activities. The total duration of these acoustical impacts to wilderness users during construction will only be a few hours over one day. The total duration of potential noise impacts to wilderness users during annual maintenance activities is estimated to be less than one hour per year. Further, as Agua Dulce Mountain is located near the Cabeza Prieta Wilderness boundary/international border, the impact to solitude and unconfined recreation would be limited to a very small portion of the 800,000+ acre wilderness area. No alternative to use of a helicopter for site access could be identified.

Describe Monitoring & Reporting Requirements:

The design for the TCNS has been reviewed and approved by USFWS. CBP has applied for a right of way permit to CPNWR for installation of this joint use facility. Helicopter use will be coordinated with CPNWR refuge manager to minimize potential impacts.

**Approvals**

Which of the prohibited uses found in Section 4(c) of the Wilderness Act are approved in the selected alternative and for what quantity?

<u>Prohibited Use</u>	<u>Quantity</u>
<input type="checkbox"/> Mechanical Transport:	
<input checked="" type="checkbox"/> Motorized Equipment:	Rock drill to install grounding rods and rock anchors
<input type="checkbox"/> Motor Vehicles:	
<input type="checkbox"/> Motorboats:	
<input checked="" type="checkbox"/> Landing of Aircraft:	8 helicopter trips from staging area south of the Agua Dulce Mountains in the vicinity of the border wall and return and one trip per year for maintenance
<input type="checkbox"/> Temporary Roads:	
<input type="checkbox"/> Structures:	
<input checked="" type="checkbox"/> Installations:	Installation of TCNS skid at site

Record and report any authorizations of Wilderness Act Section 4(c) prohibited uses according to agency policies or guidance.

Refer to agency policies for the following review and decision authorities:

Prepared	Name	Position
	David Walls	Senior Environmental Planner CBP PMOD
	Signature	Date
DAVID W WALLS (affiliate)	Digitally signed by DAVID W WALLS (affiliate) Date: 2020.06.22 09:22:17 -05'00'	06-22-2020

Recommended	Name		Position	
	Alfredo Soto		Wildlife Refuge Specialist	
	Signature			Date
	<b>ALFREDO SOTO</b> Digitally signed by ALFREDO SOTO <small>Date: 2020.06.22 14:22:37 -07'00'</small>			22 June 2020

Approved	Name		Position	
	Signature			Date
	<b>Sidney C Slone</b> Digitally signed by Sidney C Slone <small>Date: 2020.08.25 16:36:26 -07'00'</small>			