FINDING OF NO SIGNIFICANT IMPACT
FOR THE PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE
U.S. BORDER PATROL FALFURRIAS STATION TRAFFIC CHECKPOINT
U.S. BORDER PATROL, RIO GRANDE VALLEY SECTOR, TEXAS

Project History: U.S. Border Patrol (USBP) is a law enforcement entity of U.S. Customs and
Border Protection (CBP) within the Department of Homeland Security. USBP’s priority mission
is to prevent the entry of terrorists and their weapons of terrorism into the United States and to
enforce the laws that protect the U.S. homeland. This is accomplished by the detection,
interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or
contraband across the sovereign borders of the United States. The existing Falfurrias traffic
checkpoint (TCP), constructed in 1994, is inadequate to handle the increase in traffic flow along
U.S. Highway 281 (US 281). The proposed new TCP would be constructed to provide adequate
space for operations and provide a safe, effective, and efficient working environment for USBP
agents and support staff.

An Environmental Assessment (EA) was prepared in accordance with the National
Environmental Policy Act and analyzes the project alternatives and potential impacts on the
human and natural environments from the Preferred Alternative and a No Action Alternative.

Purpose and Need: The purpose of the Proposed Action is to expand the existing, undersized
TCP with adequate facilities that allow personnel to operate in a safe and efficient manner while
fulfilling USBP’s primary mission of preventing terrorists and their weapons from entering the
United States and preventing the illicit trafficking of people and contraband between the official
ports of entry. The need for the Proposed Action is to provide adequate space and facilities for
the agents and staff currently operating the TCP; increase the width and number of approach
lanes to efficiently and safely handle the increase in vehicular traffic; and provide a more safe,
effective, and efficient work environment.

Proposed Action: The Proposed Action includes the construction, operation, and maintenance
of a new TCP located approximately 13 miles south of Falfurrias, Texas, on the northbound side
of US 281. The new TCP would be constructed to qualify for Leadership in Energy and
Environmental Design Silver certification by the U.S. Green Building Council. The Proposed
Action would consist of widening the existing highway to eight lanes, including four catwalks,
for primary inspection and eight lanes for secondary inspection. The operational improvements
would include a two-bay vehicle lift inspection, secondary bus inspection, vehicle non-invasive
inspection lane, and possible pre-enrolled access commercial traffic lanes. In addition, the main
building and surrounding site would be improved to provide administrative and cell detention
areas, sallyport, increase the six mobile K-9 kennels to a short-stay K-9 facility for 10 dogs,
narcotics storage structure, general storage building(s), fuel island, vehicle impound lot, water
storage tank for fire protection and potable water, new potable and fire water well designed with
an in-line water treatment system, on-site sewage disposal areas, runoff detention ponds, a
communication tower (less than 200-feet tall), a wind turbine less than 200 feet tall, perimeter
security lighting, and an 8-foot-high chain-link security fence, as well as other minor
improvements (e.g., cameras, National Infrastructure Coordination Center new technology
scanners, and license plate reader systems). New utilities would be installed and would include the construction of a wind turbine and solar panels for renewable energy at the TCP. Although the exact model for the wind turbine has not been determined, the total height of the proposed turbine would be less than 200 feet. The existing TCP will be completely demolished and replaced with the new TCP.

The Proposed Action would also include the continued maintenance of the new TCP. Such activities could include, but are not limited to, minor renovations and additions to buildings such as realigning interior spaces of an existing building, adding a small storage shed to an existing building, or installing the following: a small antenna on an already existing communications tower that does not cause the total height to exceed 200 feet, kennels, security systems, lighting, parking areas, and stormwater detention basins. Other maintenance activities could include routine upgrade, repair, and maintenance of the new TCP buildings, roofs, parking area, grounds, or other facilities that would not result in a change to their functional uses (e.g., replacing door locks or windows, painting interior or exterior walls, resurfacing a road or parking lot, culvert maintenance, grounds maintenance, or replacing essential station components such as an air conditioning unit).

**Alternative Sites Considered:** Five alternative sites were considered during the planning stages of the proposed project: the Rachal Foundation and King Ranch Site, the Encino Tract site, the Morales Tract site, the Ballenger Tract site, and the Cage Tract site. The Encino Tract, Morales Tract, Ballenger Tract, and Cage Tract sites did not fully support the purpose and need of the Proposed Action and were eliminated from further analysis due to unwilling sellers, increased costs, or lack of ingress and egress. The Preferred Alternative site, Rachal Foundation and King Ranch site, was determined to be the viable alternative site for the location of the new TCP. The Preferred Alternative site is an approximately 34-acre parcel that includes approximately 8 acres of Texas Department of Transportation (TxDOT) land that contains the existing TCP, approximately 7 acres owned by King Ranch, and approximately 19 acres owned by the Rachal Foundation.

**Affected Environment and Consequences:** The construction and operation of the new TCP would potentially result in minimal to moderate impacts, including temporary impacts on noise and transportation during construction activities. Following construction, approximately 32 acres would be developed and would consist of primarily impermeable surfaces with increased surface runoff during rain events. Approximately 2 acres are currently developed due to the existing TCP. With the implementation of best management practices, the impacts on water quality would be minimal. There would be a permanent loss of biological productivity of soils and vegetation with the implementation of the Proposed Action. The vegetation on the Preferred Alternative site is partially disturbed and regionally common. Impacts on aesthetic and visual resources due to the removal of the vegetation and the construction of the TCP facilities, including a communication tower and wind turbine, would be negligible. The northern aplomado falcon (*Falco femoralis spetenionalis*) occurs in Brooks County, but the Preferred Alternative site contains marginal habitat and no nests or falcons were observed at the Preferred Alternative site. No adverse effects on historic properties are anticipated from the proposed construction, maintenance, and operation of the proposed new TCP. Due to the rural nature of
Brooks County and the limited development anticipated in the area, no cumulative impacts are anticipated.

**Best Management Practices:** Best management practices that will be implemented during construction, operation, and maintenance of the new TCP are described in Section 5 of the EA and are incorporated by reference into this Finding of No Significant Impact. Some of the more pertinent measures include, but are not limited to, the following:

1. Prepare and implement a Spill Prevention, Control, and Countermeasures Plan (SPCCP) to prevent and manage accidental spills that might occur during construction of the TCP. Operation of the TCP will also require an SPCCP due to the presence of hazardous materials associated with the vehicle maintenance shop and fueling station.
2. Prepare and implement a Stormwater Pollution Prevention Plan to control stormwater erosion and sedimentation during construction.
3. Conduct bird surveys, in accordance with the Migratory Bird Treaty Act, in the event that clearing and grubbing activities occur during the normal migratory bird breeding and nesting season.
4. Due to the observed presence of Texas horned lizard (*Phrynosoma cornutum*) in the immediate project area, an exclusion fence will be constructed and will consist of metal flashing or drift fencing buried at least 6 inches deep and 24 inches high.
5. Provide immediate notification to the State Historic Preservation Officer in the event that any subsurface cultural resources are uncovered during construction.

**Findings and Conclusions:** No significant adverse impacts are anticipated for any resource analyzed within this document. Therefore, no further analysis or documentation (i.e., Environmental Impact Statement) is warranted. CBP, in implementing this decision, would employ all practical means to minimize the potential adverse impacts on the human and biological environments.

**Project Proponent:**

Efren V. M. Garcia
Director
Facilities Branch
Office of Border Patrol

14 July 2014
Date

**Approved:**

Karl Calvo
Executive Director
Facilities Management and Engineering
U.S. Customs and Border Protection

24 July 2014
Date
ENVIRONMENTAL ASSESSMENT
FOR
THE PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE
U.S. BORDER PATROL FALFURRIAS STATION TRAFFIC CHECKPOINT
U.S. BORDER PATROL, RIO GRANDE VALLEY SECTOR

July 2014

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EXECUTIVE SUMMARY

INTRODUCTION: U.S. Border Patrol (USBP) is a law enforcement entity of U.S. Customs and Border Protection (CBP) within the Department of Homeland Security. USBP’s priority mission is to prevent the entry of terrorists and their weapons of terrorism into the United States and to enforce the laws that protect the U.S. homeland. This is accomplished by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the U.S. During recent years, illegal aliens have cost U.S. citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention, and incarceration of criminals; and indirectly in loss of property, illegal participation in government programs, and increased insurance costs.

A new USBP traffic checkpoint (TCP) is needed within USBP Falfurrias Station’s Area of Responsibility (AOR), Rio Grande Valley Sector, Texas, to handle the increases in traffic flow along U.S. Highway 281 (US 281). The existing TCP, constructed in 1994, is inadequate. The proposed new TCP would be constructed to provide adequate space for a safe, effective, and efficient working environment for USBP agents and support staff in support of the National Border Patrol Strategy (2012-2016) to secure the borders of the U.S. using information, integration, and rapid response. This Environmental Assessment was prepared in accordance with the National Environmental Policy Act and analyzes the project alternatives and potential impacts on the human and natural environment.

DESCRIPTION OF PROPOSED ACTION: The Preferred Alternative includes the construction, operation, and maintenance of a new TCP and the demolition of the existing TCP located approximately 13 miles south of Falfurrias, Texas, on the north side of US 281. The site is composed of an approximately 34-acre parcel that includes approximately 8 acres of Texas Department of Transportation land, approximately 7 acres owned by King Ranch, and approximately 19 acres owned by the Rachal Foundation.

PROPOSED ACTION AND ALTERNATIVES CONSIDERED: Five alternative sites were considered during the planning stages of the proposed project: Rachal Foundation and King Ranch site, which is the Preferred Alternative site, the Encino Tract site, the Morales Tract site, the Ballenger Tract site, and the Cage Tract site. The Encino Tract, Morales Tract, Ballenger Tract, and Cage Tract sites did not fully support the purpose and need and were eliminated from further analysis. The Rachal Foundation
and King Ranch site was determined to be a viable alternative site for the location of the new TCP.

**AFFECTED ENVIRONMENT AND CONSEQUENCES:**

The construction and operation of the new TCP would potentially result in minimal to moderate impacts, including temporary impacts on noise and transportation during construction activities. Approximately 32 acres would be developed and would consist of primarily impermeable surfaces with increased surface runoff during rain events. Approximately 2 acres are currently developed due to the existing TCP. With the implementation of best management practices, the impacts on water quality would be minimal. There would be a permanent loss of biological productivity of soils and vegetation with the implementation of the Proposed Action. The vegetation on the Preferred Alternative site is partially disturbed and regionally common. Impacts on aesthetic and visual resources due to the removal of the vegetation would be negligible. The northern aplomado falcon (*Falco femoralis spetentriionalis*) occurs in Brooks County, but the Preferred Alternative site contains marginal habitat and no nests or falcons were observed at the Preferred Alternative site. No adverse effects on historic properties are anticipated from the proposed construction, maintenance, and operation of the proposed new TCP. Due to the rural nature of Brooks County and the limited development anticipated in the area, no cumulative impacts are anticipated.

**FINDINGS AND CONCLUSIONS:**

No significant adverse impacts are anticipated for any resource analyzed within this document. Therefore, no further analysis or documentation (i.e., Environmental Impact Statement) is warranted. CBP, in implementing this decision, would employ all practical means to minimize potential adverse impacts on the human and biological environment.
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INTRODUCTION
1.0 INTRODUCTION

The Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP) is preparing this Environmental Assessment (EA) to address the potential effects, beneficial and adverse, resulting from the proposed construction, operation, and maintenance of a new U.S. Border Patrol (USBP) traffic checkpoint (TCP) and the demolition of the existing TCP within USBP Falfurrias Station’s Area of Responsibility (AOR), Rio Grande Valley Sector, Texas. The current TCP is located south of Falfurrias, Texas, and north of Encino, Texas, along the northbound side of U.S. Highway 281 (US 281). The existing TCP, constructed in 1994, is incapable of handling the increase in traffic flow along US 281. The proposed new TCP would be constructed to provide adequate space for operations, accommodate the increasing USBP agent force, and provide a safe, effective, and efficient working environment for USBP agents and support staff in support of the National Border Patrol Strategy (2012-2016) to secure the borders of the United States using information, integration, and rapid response (CBP 2012).

1.1 STUDY LOCATION

The proposed TCP would be constructed along US 281 south of Falfurrias, Texas, within Brooks County, Texas (Figure 1-1). Brooks County is bordered by Duval, Jim Wells, and Kleberg counties to the north, Hidalgo and Starr counties to the south, Kenedy County to the east, and Jim Hogg County to the west.

1.2 PURPOSE AND NEED

The purpose of the Proposed Action is to expand the existing, undersized TCP with adequate facilities that allow personnel to operate in a safe and efficient manner. This will allow USBP to fulfill its primary mission of preventing terrorists and their weapons from entering the United States and preventing the illicit trafficking of people and contraband between the official ports of entry. Current increasing trends in illegal border activity require additional USBP agents and other resources to enhance the operational capabilities of USBP. In addition, the existing TCP does not provide adequate space and facilities for the current level of personnel operating at the facility. Therefore, the need for the Proposed Action is to provide the following:

- adequate space and facilities (e.g., administrative, secondary vehicle inspection operations, and temporary detention facilities) for the agents and staff currently operating the TCP
- an increase in the width of approach lanes to allow sufficient space to safely conduct primary inspections and to allow for the free flow of public traffic during times when the TCP is closed
- adequate number of primary inspection lanes to handle increases in vehicular traffic, avoid congestion, and enhance agent and public safety
- adequate lighting to enhance security and detection capabilities
- a means to operate the TCP during extremely hot or other inclement conditions
- a more safe, effective, and efficient working environment
Figure 1-1. Vicinity Map
1.3 SCOPE OF ENVIRONMENTAL ANALYSIS AND DECISION TO BE MADE

The scope of this EA includes the direct, indirect, and cumulative effects on the natural, social, economic, and physical environments resulting from the construction, installation, operation, and maintenance of a new TCP and the demolition of the existing TCP. The analysis does not include an assessment of USBP operations conducted in the field, at the TCP, and away from USBP Falfurrias Station or the TCP.

USBP operations would continue unchanged regardless of whether a new TCP is constructed. Construction of a new TCP would include development of lands within Falfurrias Station’s AOR in Brooks County, Texas. The potentially affected biological and human environments would include resources associated with land located in Brooks County; however, most potential effects would be limited to the construction site and immediately adjacent resources.

This EA documents the significance of the environmental effects of the Proposed Action and looks at alternatives to achieve the objectives. This EA allows decision makers to determine if the Proposed Action will or will not have a significant impact on the natural, social, economic and physical environment, as well as whether the action can proceed to the next phase of project development or if a Notice of Intent for the preparation of an Environmental Impact Statement (EIS) will be published. The process for developing the EA also allowed for input and comments on the Proposed Action from the concerned public and interested government agencies to inform agency decision making. The EA was prepared as follows:

1. Conducted Interagency and Intergovernmental Coordination for Environmental Planning. The first step in the NEPA process was to solicit comments about the proposed project from Federal, state, and local agencies and Federally recognized tribes to ensure that their concerns were included in the analysis.
2. Prepared a preliminary draft EA. CBP examined the environmental impacts of the alternatives and prepared a preliminary draft EA for review and comment by the U.S. Army Corps of Engineers and CBP.
3. Prepared a draft EA. CBP incorporated relevant comments and concerns received on the preliminary draft EA and prepared a draft EA.
4. Announced that the draft EA had been prepared. A Notice of Availability (NOA) was published in the Corpus Christi Caller-Times and the Falfurrias Facts newspapers to announce the public comment period and the availability of the draft EA and Finding of No Significant Impact (FONSI).
5. Provided a public comment period. A public comment period allowed for all interested parties to review the analysis presented in the draft EA and provide feedback. The draft EA was available to the public for a 30-day review at the Ed Rachal Memorial Library in Falfurrias, Texas, the Corpus Christi Central Library in Corpus Christi, Texas, and electronically at http://www.cbp.gov/about/environmental-cultural-stewardship/nepa-documents/docs-review.
6. Prepared a final EA. A final EA was prepared following the public comment period. The only change from the draft EA was the revision of Appendix A to include all correspondences received and transmitted since the publication of the draft EA. CBP received one comment, a response to CBP’s consultation request from the White Mountain
Apache Tribe. This comment has been included in Appendix A of this Final EA as part of the correspondence received regarding the proposed action.

7. Issued a FONSI. The final step in the NEPA process was the signature of a FONSI since the environmental analysis supported the conclusion that impacts on the quality of the human and natural environments from implementing the Proposed Action would not be significant. If the environmental consequences of the Proposed Action would have been considered significant, a Notice of Intent for the preparation of an EIS would have been published.

1.4 ENVIRONMENTAL REVIEW AND CONSULTATION REQUIREMENTS

CBP followed applicable Federal laws and regulations. This EA was developed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [USC] 4321-4347), regulations issued by the Council on Environmental Quality (CEQ) published in 40 Code of Federal Regulations (CFR) Parts 1500-1508, and the U.S. Department of Homeland Security Directive Number 023-01, Environmental Planning Program, and other pertinent environmental statutes, regulations, and compliance requirements. The EA is the vehicle for compliance with all applicable environmental statutes, such as the Endangered Species Act (ESA) of 1973, 16 USC Part §1531 et seq., as amended, and the National Historic Preservation Act (NHPA) of 1966, 16 USC §470a et seq., as amended.

1.5 PUBLIC INVOLVEMENT

In accordance with 40 CFR §1501.7, 1503 and 1506.6, CBP initiated public involvement and agency scoping activities to identify significant issues related to the Proposed Action. CBP consulted with appropriate local, state, and Federal government agencies and Native American tribes throughout the EA process. CBP coordinated with the following agencies and Federally recognized Native American tribes:

Federal Agencies:

- U.S. Fish and Wildlife Service (USFWS)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Army Corps of Engineers (USACE)
- Federal Aviation Administration (FAA)

State Agencies:

- Texas Parks and Wildlife Department (TPWD)
- Texas State Historic Preservation Officer (SHPO)
- Texas Department of Transportation (TxDOT)
- Texas Commission on Environmental Quality (TCEQ)
Native American Tribes:

- Comanche Nation
- Mescalero Apache Reservation
- Kiowa Tribe of Oklahoma
- Pawnee Nation of Oklahoma
- Tonkawa Tribe of Oklahoma
- Fort Sill Apache Tribe of Oklahoma
- White Mountain Apache Tribe

Local:

- Brooks County
- City of Falfurrias

1.6 PUBLIC REVIEW OF THE DRAFT EA

A draft version of the EA and FONSI was made available for review and comment by Federal, state, and local agencies, tribal governments, and the public. CBP distributed copies to those agencies, organizations, and individuals who were known or expected to have an interest in the EA, as well as to those who specifically requested a copy. Copies were also made available on the project website (http://www.cbp.gov/about/environmental-cultural-stewardship/nepa-documents/docs-review), at the Ed Rachal Memorial Library, 203 South Calixto Mora Avenue, Falfurrias, Texas, and the City of Corpus Christi Central Library, 805 Comanche Street, Corpus Christi, Texas. A Notice of Availability was published in the Falfurrias Facts and the Corpus Christi Caller-Times newspapers. A copy of the NOA is included in Appendix A.

The formal public comment period was 30 days, from April 25, 2014, through May 24, 2014. The public was invited to submit comments on the Draft EA to CBP via (1) e-mail (Falfurrias.Checkpoint.EA@cbp.dhs.gov), (2) fax (949-360-2985) and (3) the U.S. mail. CBP received one comment, a response to CBP’s consultation request from the White Mountain Apache Tribe. This comment has been included in Appendix A of this Final EA as part of the correspondence received regarding the proposed action. No other comments were received during the public comment period on the Draft EA.

1.7 REPORT ORGANIZATION

This EA is organized into eight major sections, including this introduction. Section 2.0 describes all alternatives considered for the project. Section 3.0 discusses the environmental resources potentially affected by the project and the environmental consequences for each of the viable alternatives, and Section 4.0 discusses cumulative impacts. Best Management Practices (BMPs) are discussed in Section 5.0. Sections 6.0, 7.0, and 8.0 present a list of the references cited in the document, a list of acronyms and abbreviations used in the document, and a list of the persons involved in the preparation of this document, respectively. Appendix A includes all correspondences transmitted or received during the preparation of this EA. Appendix B includes
the list of species observed during the October 22, 2013 biological survey, and Appendix C includes the air quality analysis calculations.
SECTION 2.0
PROPOSED ACTION AND ALTERNATIVES
2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

Based upon preliminary site designs, a 34-acre project site is required to accommodate the new TCP construction which will include an expansion of the existing TCP footprint to provide adequate space for operations, provide a much safer traffic flow during peak traffic times, accommodate the increasing USBP agent force, and provide a safe, effective, and efficient working environment for USBP agents and support staff (Figure 2-1 and 2-2). The new TCP would meet Federal requirements for energy and water efficiency and would be designed to qualify for Leadership in Energy and Environmental Design (LEED) Silver certification by the U.S. Green Building Council. Figure 2-3 is the conceptual plan for the TCP layout. The proposed new TCP would include some or all of the following components:

- Eight primary and eight secondary inspection lanes
- Two-bay vehicle lift inspection
- Secondary bus inspection
- Vehicle non-invasive inspection lane
- Pre-enrolled access commercial traffic lanes
- Administration building
- General storage buildings
- Water storage tank
- New water well
- Sewage disposal areas
- Cameras, scanners, and license plate readers
- Fuel islands
- Security lighting
- 8-foot-high chain-link security fencing
- Stormwater retention system
- Wind turbine (less than 200 feet tall)
- Kennels for 10 canines
- Parking, including a sally port and covered parking
- Vehicle impound lot
- Communications tower with antennas and receivers (less than 200 feet tall)
- Narcotic storage structure
- Alien processing and detention space

The current TCP has three primary inspection lanes and one Pre-Enrolled Commercial Access Traffic lane. The secondary inspection for passenger vehicles is currently conducted at three parking spaces located in front of the office building and the larger vehicles, buses, and trucks are directed to the large paved area on the east side of the existing TCP property. The Proposed Action would consist of widening the existing highway to eight lanes and four catwalks for primary inspection and eight lanes for secondary inspection.

The operational improvements would include a two-bay vehicle inspection lift, secondary bus inspection, vehicle non-invasive inspection lane, and possible pre-enrolled access commercial traffic lanes. In addition, the main building and surrounding site would be improved to provide administrative and cell detention areas, increase the six mobile K-9 kennels to a short-stay K-9 facility for 10 dogs, narcotic storage structure, general storage building(s), fuel island, vehicle impound lot, water storage tank for fire protection and potable water, and a new potable and fire water well designed with an in-line water treatment system, on-site sewage disposal areas, and runoff detention ponds, as well as other minor improvements (e.g., cameras, National Infrastructure Coordination Center new technology scanners, and license plate reader systems).
Figure 2-1. Existing and Proposed Traffic Checkpoint Footprint
Figure 2-2. Proposed Traffic Checkpoint Footprint
Figure 2-3. Conceptual Traffic Checkpoint Layout
The existing 130-foot-high communication tower would be relocated to allow expansion of the other facilities. However, the tower would still be within the expanded TCP footprint. The height of the tower might be increased, but would be less than 200 feet tall and would not utilize guy wires. New utilities would be installed and would include the construction of a wind turbine and solar panels for renewable energy at the TCP. Although the exact model for the wind turbine has not been determined, the total height of the proposed turbine would be less than 200 feet.

A sallyport would be located at the TCP to provide safe and effective transfer of detainees from USBP vehicles or from the station to detainee transfer buses. A security fence would be installed 10 feet from the property boundary, parking areas would be set back 20 feet from the security fence, and all other structures would be constructed no closer than 90 feet from the security fence.

USFWS Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers (USFWS 2000) and Recommendations for Design and Construction of Cell Phone and Other Towers (USFWS 2008) will be implemented to include actions to reduce nighttime atmospheric lighting and the potential adverse effects of nighttime lighting on migratory bird and nocturnal flying species. New lighting would be installed and would consist of 10 light standards equipped with four luminaries each. Metal halide lamps would be used to provide the most accurate color rendering index. Illumination within the work area would be directed down and toward the traffic lanes for inspection and safety purposes and would be expected to achieve 50 foot-candles. Lighting for the security fencing will be installed to allow 10 to 15 feet of visibility. Illumination intensity at ground level adjacent to the security fence would be approximately 2 foot-candles and would not exceed the real estate boundary for the facility. Backshields would be placed on the lights to reduce or eliminate light trespass into vegetated areas adjacent to the TCP. Installation of the permanent lights would allow USBP to discontinue the use of portable light generators for everyday operations and would be used only for emergency situations. Power for the lights would be provided by underground lines from existing, adjacent electrical power poles.

Additionally, continued maintenance and potential renovations to the new TCP would be expected. Such activities could include, but are not limited to, minor renovations and additions to buildings such as realigning interior spaces of an existing building, adding a small storage shed to an existing building, or installing a small antenna on an already existing communications tower that does not cause the total height to exceed 200 feet, kennels, security systems, lighting, parking areas, and stormwater detention basins. Other maintenance activities could include routine upgrade, repair, and maintenance of the new buildings, roofs, parking area, grounds, or other facilities that would not result in a change to its functional use (e.g., replacing door locks or windows, painting interior or exterior walls, resurfacing a road or parking lot, culvert maintenance, grounds maintenance, or replacing TCP components such as an air conditioning unit).

Five alternatives for siting the new TCP were developed. These are the Rachal Foundation and King Ranch Site, which is the Preferred Alternative site, the Encino Tract site, the Morales Tract site, the Ballenger Tract site, and the Cage Tract site (Figure 2-4). The Encino Tract, Morales
Figure 2-4. Location of Alternative Sites
Tract, Ballenger Tract, and Cage Tract sites did not fully support the purpose and need of the Proposed Action as described in the following:

- The Encino Tract would have required the assemblage of numerous tracts, including a cemetery. Several of the property owners were not willing to sign requested rights of entry and were potentially unwilling to sell their property. Use of the cemetery property would have required the relocation of several graves. Utilization of this site was not feasible due to the increased costs associated with unwilling property owners and the relocation of graves.
- The Morales Tract did not have sufficient frontage access to safely allow ingress and egress of traffic.
- Construction associated with the operation, and maintenance of a new TCP on the Ballenger Tract would have denied access to landowners on Old/Business US 281. Further, the tract did not allow for safe ingress and egress of traffic at the TCP.
- The property owner for the Cage Tract was not a willing seller, and therefore the alternative was eliminated.

The Encino Tract, Morales Tract, Ballenger Tract, and Cage Tract were eliminated from further consideration. The Preferred Alternative site, Rachal Foundation and King Ranch site, was determined to be a viable alternative site for the location of the new TCP. Only the Preferred Alternative site and the No Action Alternative are carried forward for analysis. The Proposed Action would be implemented at the Preferred Alternative site.

2.2 NO ACTION ALTERNATIVE

The No Action Alternative would preclude any improvements to the TCP. Maintenance of the TCP, however, would continue in the same manner and frequency as it is currently. Traffic delays and risks to the general public and USBP personnel would continue at their current level. Consequently, this alternative would hinder USBP’s ability to operate the TCP in a safe and efficient manner. Traffic will continue to increase at the site, creating unsafe traffic conditions. The No Action Alternative does not meet the purpose and need for the proposed project, but will be carried forward for analysis, as required by CEQ regulations. The No Action Alternative describes the existing conditions in the absence of any other alternative and will be used for comparison with the action alternatives.

2.3 PREFERRED ALTERNATIVE

The Preferred Alternative includes the land acquisition for the expansion of the current TCP footprint and the construction, operation, and maintenance of a new TCP, as previously described, at the existing TCP site located on the northbound side of US 281 approximately 13 miles south of the City of Falfurrias, Texas. The Preferred Alternative is an approximately 34-acre parcel that includes approximately 8 acres of TxDOT land, approximately 7 acres owned by King Ranch, and approximately 19 acres owned by the Rachal Foundation (Figure 2-5) (Photograph 2-1 and 2-2). The existing TCP, which encompasses approximately 2 acres of the TxDOT land, will be completely demolished and replaced with the new TCP. The surrounding area is primarily undeveloped.
Figure 2-5. Preferred Alternative - Project Area Map
2.4 SUMMARY

The No Action Alternative and Preferred Alternative have been carried forward for analysis. As shown in Table 2-1, the Preferred Alternative fully supports the purpose and need as described in Section 1.2. Table 2-2 presents a summary matrix of the potential impacts from the two alternatives analyzed and how each affects the environmental resources in the project area.

<table>
<thead>
<tr>
<th>Purpose and Need</th>
<th>No Action Alternative</th>
<th>Preferred Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will the alternative provide adequate space and facilities for existing agents and staff operating the TCP?</td>
<td>Partially</td>
<td>Yes</td>
</tr>
<tr>
<td>Will the alternative provide sufficient space to safely conduct primary inspections and allow for the free flow of public traffic when the TCP is closed?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Will the alternative provide facilities necessary to enhance USBP operations at the TCP?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Will the alternative provide a means for the TCP to operate during extremely hot or inclement conditions?</td>
<td>Partially</td>
<td>Yes</td>
</tr>
<tr>
<td>Will the alternative provide a safe working environment and increased effectiveness for USBP agents in the performance of their duties?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Affected Environment</td>
<td>No Action Alternative</td>
<td>Preferred Alternative</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Land Use</td>
<td>No impacts on land use would occur.</td>
<td>Approximately 32 acres of privately owned/state property would be permanently converted to TCP facilities. Approximately 2 acres of the Preferred Alternative site are currently developed due to the existing TCP.</td>
</tr>
<tr>
<td>Soils</td>
<td>No impacts on soils would occur.</td>
<td>Negligible impacts on soils would occur. No prime farmlands would be impacted.</td>
</tr>
<tr>
<td>Water Resources</td>
<td>No impacts on surface waters or groundwater quality or quantity would occur.</td>
<td>A Stormwater Pollution Prevention Plan (SWPPP) is required as part of the National Pollutant Discharge Elimination System permit process and would reduce temporary impacts on water quality from stormwater runoff. No waters of the U.S. are present and the site is not located within the 100-year floodplain. A new potable water well would be drilled and the existing well will be abandoned.</td>
</tr>
<tr>
<td>Vegetative Habitat</td>
<td>No impacts on vegetation would occur.</td>
<td>Approximately 32 acres of partially disturbed native Live Oak woods habitat would be replaced with development and landscaped areas. Approximately 2 acres of the Preferred Alternative site are currently disturbed due to the existing TCP.</td>
</tr>
<tr>
<td>Wildlife Resources</td>
<td>No impacts on wildlife would occur.</td>
<td>Minimal adverse effects on wildlife populations would occur due to the loss of habitat, and some individual specimens could be disturbed, injured, or killed during the clearing of vegetation and construction activities. The implementation of BMPs would reduce impacts on wildlife from the Proposed Action.</td>
</tr>
<tr>
<td>Threatened and Endangered Species</td>
<td>No impacts on protected species would occur.</td>
<td>The Preferred Alternative site consists of marginal habitat for the aplomado falcon. No nests or aplomado falcons were observed during the survey. No effects on listed species would occur. BMPs would be implemented to minimize risk to the state-protected species.</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>No impacts would occur.</td>
<td>No eligible sites are present at the Preferred Alternative Site and no impacts on cultural resources would be anticipated.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>No impacts would occur.</td>
<td>Minor and temporary increases in air pollution would occur from the use of construction equipment during construction.</td>
</tr>
<tr>
<td>Noise</td>
<td>No direct impacts would occur.</td>
<td>Minor temporary increases in noise would occur during demolition of existing structures and construction; to minimize these impacts, construction activities should be limited to daylight hours. There are no sensitive noise receptors within 1 mile of the Preferred Alternative site.</td>
</tr>
<tr>
<td>Utilities and Infrastructure</td>
<td>No direct impacts on energy use and water and sewer use would occur.</td>
<td>A new high-pressure water well would be installed and equipped with an in-line water treatment system. A sewage disposal area would be constructed in addition to a stormwater retention system. Electric power would be expanded from the current TCP and with the installation of a wind turbine and solar panels as alternate renewable energy sources, a decrease on the demand for electric utilities would be anticipated. Solid waste services would be extended from the City of Falfurrias.</td>
</tr>
<tr>
<td>Affected Environment</td>
<td>No Action Alternative</td>
<td>Preferred Alternative</td>
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<tr>
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</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>Increases in traffic congestion would continue to occur due to increases in traffic and inadequate numbers of inspection lanes at the existing TCP.</td>
<td>Minor and temporary increases in daily traffic volume would occur from the presence of construction-related equipment and vehicles.</td>
</tr>
<tr>
<td><strong>Aesthetics and Visual Resources</strong></td>
<td>No direct impacts on aesthetic and visual resources in the vicinity of the Preferred Alternative site because no construction would occur.</td>
<td>Negligible impact on aesthetic and visual resources would occur.</td>
</tr>
<tr>
<td><strong>Hazardous Materials</strong></td>
<td>No impacts from hazardous materials would be expected.</td>
<td>All materials created from existing structure demolition and construction activities would be disposed of properly. The potential exists for leaks from new ASTs, confiscated fuel, or confiscated hazardous materials. However, secondary containment systems would be installed to prevent releases.</td>
</tr>
<tr>
<td><strong>Sustainability and Greening</strong></td>
<td>The TCP would continue to operate at status quo. No new energy-saving technologies would be implemented.</td>
<td>CBP would follow all Federal regulations for sustainable building and maintenance activities. The new TCP would be designed to qualify for LEED Silver certification, would provide energy from renewable resources such as a wind turbine and solar panels, and would improve water use efficiencies.</td>
</tr>
<tr>
<td><strong>Human Health and Safety</strong></td>
<td>USBP agents would be subjected to adverse long-term safety risks working in inadequate and older facilities.</td>
<td>All Occupational, Safety, and Health Administration regulations would be followed during construction activities. A new TCP would improve safety conditions for USBP agents at the new TCP.</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td>No additional emissions of greenhouse gases (GHG) would occur.</td>
<td>Demolition and construction activities would increase GHG emissions temporarily; these emissions would be below the thresholds established by CEQ for further evaluation of impacts on climate change.</td>
</tr>
</tbody>
</table>
SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES
3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 PRELIMINARY IMPACT SCOPING

This section describes the natural and human environments that exist within the Preferred Alternative site and region of influence (ROI; defined as the City of Falfurrias and Brooks County), and the potential impacts of the No Action Alternative outlined in Section 2.0. Only those parameters that have the potential to be affected by the two alternatives are described, as per CEQ guidance (40 CFR 1501.7 [3]). Some topics are limited in scope due to the lack of direct effect from the proposed project on the resource, or because that particular resource is not located within the project area. Resources dismissed from further discussion include the following:

**Geologic Resources**
Geologic resources include physical surface and subsurface features of the earth such as geologic formations and the seismic activity of the area. The proposed construction of the new TCP would not disturb the underlying geologic resources of the area, since only surface modifications would be implemented. The Proposed Action is located in an area that is not subject to seismic activity, landslides, or flooding, so there would be no impacts on geologic resources.

**Wild and Scenic Rivers**
No rivers designated as Wild and Scenic Rivers (16 U.S.C. 551, 1278[c], 1281[d]) are located within or near the project corridor.

**Unique and Sensitive Areas**
No lands within the project footprint are designated as wilderness areas and do not require conservation, preservation, or protection for future use as wilderness (i.e., Wilderness Area [16 U.S.C. 1131-1136, 78 Stat. 890]). The project corridor is not unique to the surrounding landscape, undeveloped, or contain features of scientific, educational, or scenic value.

**Socioeconomics**
The proposed construction of the new TCP would have no effect on socioeconomic conditions in the region, as the project is located within an undeveloped area along US 281. An increase in agents assigned to the USBP Falfurrias Station as a result of the construction of a new TCP is not anticipated; therefore, the proposed construction of the new TCP would not impact local income levels or housing in the City of Falfurrias and Brooks County.

**Environmental Justice and Protection of Children**
In accordance with Executive Orders (EO) 12898 and 13045, CBP would ensure that no residential developments or active commercial properties occur in proximity to the Preferred Alternative site, and the Proposed Action would not impact minorities or children.

Impacts (consequence or effect) can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. Direct impacts are those effects that are caused by the action and that occur at the same time and place (40 CFR 1508.8[a]). Indirect impacts are those effects that are caused by the action and are later in time or further removed in
distance, but are still reasonably foreseeable (40 CFR 1508.8[b]). As discussed in this section, the alternatives may create temporary (lasting the duration of the project construction), short-term (up to 3 years), long-term (3 to 10 years following construction), or permanent impacts or effects. Whether an impact is significant depends on the context in which the impact occurs and the intensity of the impact.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. Significant impacts are those effects that would result in substantial changes to the environment (40 CFR 1508.27) and should receive the greatest attention in the decision-making process. Insignificant impacts are those that would result in minimal changes to the environment. The following discussions describe and, where possible, quantify the potential effects of each alternative on the resources within or near the project sites. All impacts described below are considered to be adverse unless stated otherwise.

3.2  LAND USE

3.2.1  Affected Environment
The Preferred Alternative site is an approximately 34-acre parcel of both privately and TxDOT-owned lands. The privately owned lands include approximately 7 acres owned by King Ranch and approximately 19 acres owned by the Rachal Foundation. Both the King Ranch and Rachal Foundation lands are no longer utilized for ranching and have been subsequently disturbed by the previous alignment of US 281, as well as the installation of underground high-pressure gas pipelines located immediately to the east of the project area. The TxDOT land includes approximately 8 acres of maintained right-of-way (ROW) located immediately adjacent to US 281 and encompasses the existing TCP which covers approximately 2 acres.

3.2.2  Environmental Consequences
3.2.2.1  No Action Alternative
The No Action Alternative would preclude the construction, operation, and maintenance of a new TCP, and land use, including the existing TCP, would remain unchanged.

3.2.2.2  Preferred Alternative
The Preferred Alternative would change approximately 32 acres of privately owned/state property into public law enforcement use with facilities to support the new TCP. Approximately 2 acres of the Preferred Alternative site are currently utilized for the existing TCP. No agricultural or commercial land use would be affected. The impact on land use from the conversion of undeveloped land to law enforcement infrastructure would be negligible due to the small size of the project footprint, which includes the existing TCP, relative to the vast amount of undeveloped land adjacent to the Preferred Alternative site.

3.3  SOILS

3.3.1  Affected Environment
The Natural Resources Conservation Service (NRCS) Soil Survey geographic database for Brooks County, Texas, was reviewed to determine soil types present within the area of the TCP (NRCS 2014). Only one soil map unit is identified at the Preferred Alternative site (Figure 3-1): Falfurrias fine sand, undulating. This soil type is used primarily for rangeland and wildlife.
Figure 3-1. Soils Map

- **Soil Unit**
  - **FAB**: Falfurrias fine sand, undulating
  - **NFB**: Nueces fine sand, gently undulating
  - **SAB**: Sarita fine sand, gently undulating

- **Legend**
  - King Ranch Tract
  - Rachal Foundation Tract
  - Texas Department of Transportation ROW
habitat. It is derived from eolian deposits with ridges typically oriented in a southeast-to-northwest direction due primarily to prevailing southeast winds. Root zones are deep, with plants easily penetrating to depth. The natural drainage class is somewhat excessively drained and water movement in the most restrictive layer is high to very high. This soil has no frequency of flooding or ponding, and water availability is very low, with annual precipitation ranging from 20 to 29 inches.

Prime farmlands are those farmlands that have the best combinations of physical and chemical properties to be able to produce fiber, livestock feed, or food, and are available for these uses. The Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) requires Federal agencies to consider the adverse effects of their projects on farmlands (including the extent to which prime, unique, and other farmland [of statewide or local importance] would be affected). The Preferred Alternative site does not contain prime farmland soils.

3.3.2 Environmental Consequences
3.3.2.1 No Action Alternative
Under the No Action Alternative, there would be no modification of soils, since no new structures or improvements associated with a TCP would be constructed.

3.3.2.2 Preferred Alternative
Impacts at the Preferred Alternative site from construction of the new TCP would consist of the removal of approximately 32 acres of soils from biological production during construction. Due to the single soil type found in the immediate area supporting the same vegetation communities, impacts on soils would be less than significant. Approximately 2 acres of soils at the Preferred Alternative site were previously disturbed from the construction of the existing TCP, and no soils on the undeveloped portions of the Preferred Alternative site are inappropriate for supporting additional infrastructure. The implementation of BMPs for erosion and dust control would reduce soil erosion impacts during construction to less than significant levels.

3.4 WATER RESOURCES
3.4.1 Affected Environment
The principal aquifer for the Preferred Alternative site is the Gulf Coast aquifer system, the primary source of groundwater along the coastal plains of Texas. The Gulf Coast aquifer system extends about 62 miles inland from the Gulf of Mexico. To the south the aquifer system extends across the Rio Grande and into Mexico, and to the north it extends along the Gulf Coast into Louisiana. Municipal and irrigation uses account for 90 percent of the total pumpage from the aquifer (Brush County Groundwater Conservation District [BCGCD] 2013). Wells for potable water range from 100 to 900 feet below the ground surface (TWDB 2014). Total groundwater resources in the Gulf Coast aquifer system are 1,825,976 acre-feet per year (TWDB N.D.), and annual water use in Brooks County is 15,595 acre-feet per year (TWDB 2011). Rainfall is the source for all fresh groundwater in Brooks County (BCGCD 2013). Water usage at the current TCP is estimated at approximately 197,100 gallons per year. There are no nearby surface drainage ways or waters of the U.S., and the site is not located within the 100-year floodplain (Figure 3-2).
Figure 3-2: Water Resources Map
3.4.2 Environmental Consequences

3.4.2.1 No Action Alternative
Under the No Action Alternative, the conditions would not change. No temporary or permanent impacts on groundwater quality and no stormwater runoff would occur.

3.4.2.2 Preferred Alternative
During construction activities, protection from sediments and pollutants in stormwater runoff would be achieved through the implementation of BMPs, such as silt fences and minimal alteration to vegetative buffers, as specified in the SWPPP. A site-specific Spill Prevention, Control, and Countermeasure Plan (SPCCP) would also be in place prior to the start of construction. BMPs outlined in this plan would reduce potential migration of soils, oil and grease, and construction debris into local watersheds. Water not lost to evaporation during watering of construction area surfaces would potentially contribute to aquifer recharge through downward seepage. A new water well would be drilled as part of the new TCP construction. The drilling and operation of the new well will comply with the Texas Administrative Code (TAC) Rules and Regulations for Public Water Systems (30 TAC 290). Water usage for the new TCP is estimated to be approximately 300,000 gallons per year. No impacts on groundwater quality would occur.

3.5 VEGETATIVE HABITAT

3.5.1 Affected Environment
The Preferred Alternative site is located within the Tamaulipan Province, as described by Blair (1950). This region is characterized as being dry and low-lying, with level to gently rolling terrain. The prevailing vegetation community is characterized as Live Oak woods, at elevations ranging between approximately 140 and 150 feet above mean sea level (amsl) (McMahan, Frye, and Brown, 1984) (Photograph 3-1).

Gulf South Research Corporation (GSRC) surveyed the Preferred Alternative site on October 22, 2013 for biological resources (CBP 2014a). A list of species observed during the survey effort is provided in Appendix B. Common perennial vegetation observed during the biological resources survey included Texas live oak (Quercus fusiformis), honey mesquite (Prosopis glandulosa), lime prickly ash (Zanthoxylum fagarum), southern hackberry (Celtis laevigata), Texas lantana (Lantana urticoides), Lindheimer’s hoary pea (Tephrosia linheimeri), and partridge pea (Chamaecrista fasciculata). Numerous annual and perennial grasses were also abundant (Photograph 3-2).
3.5.2 Environmental Consequences

3.5.2.1 No Action Alternative
The No Action Alternative would preclude the construction, operation, and maintenance of a new TCP, and vegetation would not be disturbed or removed.

3.5.2.2 Preferred Alternative
Approximately 2 acres of the footprint for the Preferred Alternative site is developed due to the presence of the existing TCP, so the Preferred Alternative would convert approximately 32 acres of partially disturbed native Live Oak woods habitat into developed and landscaped areas. The removal of approximately 32 acres of native vegetation would not significantly impact the diversity of plant communities in the area.

3.6 WILDLIFE RESOURCES

3.6.1 Affected Environment
As stated in Section 3.2, a significant portion of the vegetation has been previously disturbed by the installation of high-pressure underground pipelines immediately to the east of the project area and from the previous alignment of US 281 which runs through the project area. However, remnant stands of native vegetation persist and continue to provide habitat for a variety of wildlife species.

Common mammal species known to inhabit the Live Oak woods community of southern Texas include Virginia opossum (*Didelphis virginiana*), nine-banded armadillo (*Dasypus novemcinctus*), eastern cottontail (*Sylvilagus floridanus*), eastern fox squirrel (*Sciurus niger*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), and white-tailed deer (*Odocoileus virginianus*). The region is known to support a diverse assemblage of bird species including American goldfinch (*Carduelis tristis*), black-crested titmouse (*Baeolophus atricristatus*), black vulture (*Coragyps atratus*), Cooper’s hawk (*Accipiter cooperi*), ferruginous pygmy owl (*Glaucidium brasilianum*), green jay (*Cyanocorax yncas*), house wren (*Troglodytes aedon*), mourning dove (*Zenaida macroura*), and scissor-tailed fly catcher (*Tyrannus forficatus*). Numerous amphibian and reptile species may also be present, including tiger salamander (*Ambystoma tigrinum*), various spadefoot toads (*Spea* spp.), coastal plains toad (*Incilius nebulifer*), green treefrog (*Hyla cinerea*), Rio Grande leopard frog (*Lithobates berlandieri*), yellow mud turtle (*Kinosternon flavescens*), Texas tortoise (*Gopherus berlandieri*), keeled earless lizard (*Holbrookia porpincta*), six-lined racerunner (*Aspidoscelis sexlineatus*), Texas horned lizard (*Phrynosoma cornutum*), Texas indigo snake (*Drymarchon melanurus erebennus*), and western diamondback rattlesnake (*Crotalus atrox*). For a discussion on rare, threatened, and endangered species, see Section 3.7.

During the biological resources survey, 20 bird species were identified by sight or vocalizations (CBP 2014a). Four mammal species were also identified by sight, scat, or sign, and six reptile species were identified during the same site visit. No amphibians were observed and there is no fish habitat within the project area. A list of species observed during the survey effort is provided in Appendix B.
3.6.2 Environmental Consequences

3.6.2.1 No Action Alternative
The No Action Alternative would preclude the construction, operation, and maintenance of a new TCP, and wildlife habitat on the alternative sites would not be altered.

3.6.2.2 Preferred Alternative
Minimal adverse impacts on wildlife populations would occur as a result of the expansion of the current footprint at the existing TCP and construction, operation, and maintenance of the new TCP. Most of the land in the surrounding area is used for cattle grazing. Additionally, an underground pipeline ROW is immediately adjacent to the eastern boundary of the Preferred Alternative site. Portions of habitat within the Preferred Alternative site have also been removed or disturbed. Some individual specimens could be disturbed, injured, or killed during the clearing of vegetation and construction activities. This is particularly true of burrowing mammals, reptiles, and amphibians.

Further, some bird and bat mortality is possible from wind turbine operation from birds flying into the path of blades; however, any such individual would likely be of common species and the loss would not adversely affect the population viability or fecundity of any wildlife species in the region. Although the model has not been selected, the wind turbine will be designed and located such that the potential impacts to wildlife will be minimized. Additionally, the implementation of BMPs outlined in Section 5.0 would further reduce impacts on wildlife from the Proposed Action. The Preferred Alternative would not result in a significant impact on wildlife.

3.7 THREATENED AND ENDANGERED SPECIES

3.7.1 Affected Environment
The USFWS responsibilities under the ESA includes: (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research on, and recovery efforts for, these species; and (4) consultation with other Federal agencies concerning measures to avoid harm to listed species.

An endangered species is a species in danger of extinction throughout all or a significant portion of its range. A threatened species is a species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are those that have been formally submitted to Congress for official listing as threatened or endangered. Species may be considered for listing as endangered or threatened when any of the five following criteria occurs: (1) current/imminent destruction, modification, or curtailment of their habitat or range; (2) overuse of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; and (5) other natural or human-induced factors affecting continued existence. In addition, the USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The candidate designation includes those species for which the USFWS has sufficient information to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.
3.7.1.1 Federal

Three Federally listed endangered species are identified in Brooks County, Texas (USFWS 2013, Table 3-1). No Federally listed threatened species occur within Brooks County. Of the three endangered species, only one, the northern aplomado falcon (*Falco femoralis spatantirionalis*), has the potential to occur within the project area. The lands surrounding the project area do not contain dense thornscrub, the typical preferred habitat of ocelot (*Leopardus pardalis*) in southern Texas (USFWS 2010), and the Gulf Coast jaguarundi (*Herpailurus yagouaroundi cacomitli*) is not known to occur north of the Lower Rio Grande Valley, Texas (Tewes and Castro 2011). Additionally, the project area is immediately adjacent to US 281, which is a large, four-lane, divided highway that parallels State Highway 77. The presence of ocelot and jaguarundi within the Proposed Action Area is unlikely due to the lack of suitable habitat and the highway traffic volumes.

<table>
<thead>
<tr>
<th>Species</th>
<th>Federal Status</th>
<th>Preferred Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern aplomado falcon (<em>Falco femoralis spatantirionalis</em>)</td>
<td>Endangered</td>
<td>Typically found in grassland and savannah communities.</td>
</tr>
<tr>
<td>Gulf Coast jaguarundi <em>Herpailurus yagouaroundi cacomitli</em></td>
<td>Endangered</td>
<td>Dense thorny scrublands; may be tolerant of grasslands and pasture habitats.</td>
</tr>
<tr>
<td>Ocelot <em>Leopardus pardalis</em></td>
<td>Endangered</td>
<td>Dense chaparral thickets, mesquite scrub/shrub, riparian corridors and wetlands. Avoids open areas.</td>
</tr>
</tbody>
</table>

Source: USFWS 2013

3.7.1.2 Northern Aplomado Falcon

The northern aplomado falcon is a small, predatory bird (Photograph 3-3). Its habitat consists of grasslands and open terrain in arid landscapes with scattered trees or shrubs. It currently ranges throughout most of South and Central America. In the United States, the northern aplomado falcon once occupied desert grasslands and coastal prairies in Texas, New Mexico, and Arizona. The last naturally occurring pair of northern aplomado falcons to breed in the United States was recorded in New Mexico in 1952 (USFWS 1990). Reintroduction of the species into the United States began in 1985 in Texas, predominantly on privately owned lands through Safe Harbor Agreements. Later, reintroductions occurred in New Mexico and Arizona, predominantly onto public lands (USFWS 2006). Northern aplomado falcons prey primarily upon birds and insects, often hunting in pairs. They do not build their own nests, but use stick nests previously constructed by other birds. Declines in the United States are attributed to a reduction in habitat from grazing-caused erosion and the encroachment

[Photograph 3-3. Northern Aplomado Falcon (Source: USFWS)]
of woody vegetation into formerly open areas. The pesticide dichlorodiphenyltrichloroethane (DDT) has also been implicated in declines. The northern aplomado falcon is listed as an experimental, non-essential population by USFWS in New Mexico and Arizona. This designation allows for unintentional or incidental take pursuant to legal actions. Although potential foraging habitat for the northern aplomado falcon is present within the project area, no northern aplomado falcons or potential aplomado falcon nests were observed during the biological resources survey (CBP 2014a).

3.7.1.3 Critical Habitat
The ESA also calls for the conservation of critical habitat, which is defined as the areas of land, water, and air space that an endangered species needs for survival. Critical habitat also includes such things as food and water, breeding sites, cover or shelter, and sufficient habitat area to provide for normal population growth and behavior. One of the primary threats to many species is the destruction or modification of essential habitat by uncontrolled land and water development. The USFWS has not designated any critical habitat for the three endangered species found in Brooks County.

3.7.1.4 State
The State of Texas lists 36 species as rare, threatened, or endangered with potential to occur in Brooks County, Texas, including two amphibians, 14 birds, three insects, six mammals, seven reptiles, and four plants (TPWD 2013). Three state-listed threatened species were observed within the project area during the biological resources survey, including keeled earless lizards (Holbrookia propinqua), Texas horned lizard (Phrynosoma cornutum), and Texas indigo snake (Drymarchon melanurus erebennus) (Photographs 3-4, 3-5, and 3-6) (CBP 2014a). The locations of the horned lizard and indigo snake were recorded with a Trimble Geo XT GPS. The keeled earless lizard proved to be abundant within the project area, with more than 50 individuals counted throughout the project area. The locations of the keeled earless lizards were not recorded. Numerous plants of Cory’s croton (Croton coryi) were observed within the project area (Photograph 3-7). This species is currently ranked as S3 (21-100 known occurrences in Texas; either rare or uncommon in the state), as indicated by the Texas Natural Diversity Database (TXNDD). Cory’s croton was common throughout the project area, and the locations of individual plants were not recorded.
Photograph 3-4. Keeled Earless Lizard

Photograph 3-5. Texas Horned Lizard
3.7.2 Environmental Consequences

3.7.2.1 No Action Alternative
The No Action Alternative would preclude the construction, operation, and maintenance of a new TCP, and no special status species or their potential habitats would be affected.

3.7.2.2 Preferred Alternative
The northern aplomado falcon is the only Federally protected species with potential to occur on the Preferred Alternative site. The Preferred Alternative site consists of marginal habitat that would provide only minimal foraging opportunities for the northern aplomado falcon. No northern aplomado falcons or raptor nests of any type were observed during the biological resources survey (CBP 2014a). A pre-construction survey would be required to avoid impacts on aplomado falcon if construction occurs during the nesting season (see Section 5.0). If the species is observed within or near the site, the USFWS and TPWD would be contacted and measures to avoid or mitigate any adverse impacts would be implemented. The northern aplomado falcon would likely avoid any construction-related activity and relocate to nearby areas of similar suitability. Therefore, the demolition of existing structures and construction of the TCP at the Preferred Alternative site would have no effect on Federally listed species.

Three state protected reptiles, which included Texas horned lizard, keeled earless lizard, and Texas indigo snake, were observed on the Preferred Alternative site during the biological resources survey (CBP 2014a). Considering the activity patterns of reptiles and the timing of construction activities, individual specimens could be disturbed, injured, or killed. This is particularly likely if the reptiles are present in underground shelters and not seen on the surface. Efforts will be made to avoid direct impacts on all wildlife during construction-related activities.

3.8 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES
The NHPA establishes the Federal government’s policy to provide leadership in the preservation of historic properties and to administer Federally owned or controlled historic properties in a
spirit of stewardship. NHPA established the Advisory Council on Historic Preservation (ACHP) to advocate full consideration of historic values in Federal decision making; review Federal programs and policies to promote effectiveness, coordination, and consistency with National preservation policies; and recommend administrative and legislative improvements for protecting our Nation's heritage with due recognition of other National needs and priorities. In addition, the NHPA also established the SHPO to administer National historic preservation programs on the state level and Tribal Historic Preservation Officers on tribal lands, where appropriate. The NHPA also establishes the National Register of Historic Places (NRHP). The NRHP is the Nation's official list of cultural resources worthy of preservation and protection. Properties listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in U.S. history, architecture, archaeology, engineering, and culture. The National Park Service administers the NRHP.

3.8.1 Affected Environment

3.8.1.1 Cultural History

The Preferred Alternative site is located in Brooks County, which comprises approximately 942 square miles of brushy mesquite land situated in the south Texas plains (Garza 2011). The paleoenvironment of the region at the terminal Pleistocene (~14,000 years Before Present [B.P.]) is believed to be more parkland than it is today, with both grasses and forest elements. Large megafauna, such as mammoth, mastodon, and other now-extinct species, were present. At the end of the Pleistocene (~10,000 year B.P.), an increase in aridity is believed to have occurred. Temperatures during this time were more similar to those today, with water being more abundant and vegetation more open. Upland areas were likely more open as well but with interspersed groves of mesquite and other trees along streams (Hester 1980). Mesquite and thorn shrubs began to dominate the region during the Historic period.

Initial human occupation of the South Texas Plains is thought to have occurred during the Paleo-Indian period dating from 9200 Before Christ (B.C.) to 6000 B.C. It is generally thought that the Paleo-Indian inhabitants were big game hunters with large herbivores, including extinct Pleistocene species such as the mammoth and bison, as the preferred prey. Paleo-Indian subsistence and settlement patterns suggest a very low population density in the area, with small highly mobile bands operating in larger territorial ranges (Black 1989a).

The subsequent Archaic Period is divided into the Early Archaic (ca. 6000 B.C. to 2500 B.C.), the Middle Archaic (ca. 2500 B.C. to 400 B.C.), and the Late Archaic (ca. 400 B.C. to Anno Domini [A.D.] 800), based on artifact types, particularly projectile points, as well as other cultural traits (Black 1989b). In terms of lifestyle, the transition to the Archaic period encompassed a shift from a focus on big game hunting to a more generalized hunting and gathering adaptation beginning during the latter part of the Paleo-Indian period.

Subsistence data from the Early Archaic Period indicated a shift to the use of littoral resources such as freshwater mussels, land snails, turtle bones, and freshwater drum. Middle Archaic sites are more common in south Texas as compared to sites from previous periods. Evidence of increased plant utilization for subsistence is also seen during the Middle Archaic, including the increase in the use of groundstones, as well as an increase in roasting/baking hearths. Evidence
from the Late Prehistoric Period (ca. A.D. 800/1200 to A.D. 1600) indicates an emphasis on faunal exploitation, including a diverse range of species such as bison, deer, and pronghorn.

By the early nineteenth century the native peoples of the area were either culturally or biologically extinct or displaced. As a result, the information on the historic Native American populations of the area is derived predominantly from historic documents from Spanish expeditions, missionaries, and the earliest Anglo-European explorers and settlers.

Historic settlement in the region has pursued a number of economic exploits including farming, ranching, and oil exploration; however, considering the location of the Proposed Action the most notable has been ranching. Beginning in 1850, Richard King and Legs Lewis began investing in land parcels that had clear chains of title. Two tracts of land were purchased concurrently. Ricón de Santa Gertrudis, comprising approximately 15,500 acres, was initially purchased, followed by Santa Gertrudis de la Garza, comprising approximately 54,000 acres. On these initial plots of land, King began his cattle operation, buying cattle from Mexico and hiring Mexican cowboys (or *vaqueros*) to herd them. He eventually moved a whole village from the hills of Tamaulipas to his ranch, setting up the community as his employees. King purchased additional parcels of land including the Puerto de Agua Dulce, as well as parcels on Padre Island.

In 1860, King founded R. King and Company, which joined all the land titles of James Woolworth, King, and his wife Henrietta. In 1862, King bought 90,000 acres named the Lareles tract and another 22,000 acres from William Mann in the Ryas Blanca grant, north of Santa Gertrudis. Through additional land purchases, the King Ranch estate grew 997,445 acres, not including 30,439 acres of Santa Gertrudis headwaters, and the Stillman and Lasater tracts, which Henrietta King had previously given to her daughter Alice and son-in-law Robert Kleberg. When Kleberg County was formed in 1913, King Ranch comprised 80 percent of the county. King Ranch ranks as one of the most outstanding and best known of all cattle enterprises in the history of the southwestern cattle frontier. The only new breed of cattle to be developed in the United States, the Santa Gertrudis breed, was produced on King Ranch. In addition, studies of grassland and animal diseases conducted at King Ranch contributed greatly to the cattle industry.

### 3.8.1.2 Previous Investigations

A records search was conducted via remote terminal of the *Texas Archeological Sites Atlas* for the proposed project area on September 10, 2013. The *Texas Archeological Sites Atlas* is a database of known recorded archaeological investigations, archaeological sites, NRHP properties and districts, neighborhood surveys, Texas Historic Cemeteries, and historical markers.

One archaeological investigation was conducted in 1980 for the Federal Highway Administration (FHWA) and the State Department of Highways and Public Transportation (Texas) and crossed a portion of the project area (Tribble 1980). The project was a reconnaissance-level survey of a 400-foot-wide, 28.5-mile-long corridor along US 281. This archaeological investigation recorded three archaeological sites, one of which, 41BK5, is located approximately 476 feet to the northwest of the proposed project area. The site, as recorded, consists of a turn-of-the-century windmill and concrete water tank, as well as structural remains that may have served as a water station for early steam locomotives. The Prewitt and Associates site record form recommends that future work at the site include a literature search and possible testing. A site
reconnaissance of the area noted that the turn-of-the-century windmill and concrete water tank are no longer present.

In addition, the proposed site is within the boundaries of King Ranch, a NRHP-listed Landmark (National Historic Landmark System [NHLS] #66000820). Nominated a National Historic Landmark on November 5, 1961, it was added to the National Register of Historic Places officially on October 15, 1966. The boundaries of King Ranch were drawn to include the major core of King Ranch, Inc. at the time the Landmark was recorded. Although the land area of the ranch had been in almost constant flux from the time that Richard King purchased the first parcel of land, the basic distribution of the northern and southern sectors has remained constant. The Landmark boundary includes the Santa Gertrudis, Laureles, and Norias divisions, which embody the ranch in its beginning period. The period of significance for King Ranch extends from 1852 when Richard King first purchased land until 1924 when Richard’s widow, Henrietta, died. The areas of significance include exploration and settlement, as well as agriculture (ranching).

Due to the maintained integrities of location, aspects of the design, setting, materials, workmanship, feeling, and association the historic Ranch echoes American Southwest history from the first land grants under Spanish rule, to the events of the Civil War, Mexican raids, and years of constant adversity in creating a renowned cattle empire. King Ranch is eligible under Criteria A (events that have made a significant contribution to the broad patterns of our history), Criteria B (association with the lives of significant persons), and Criteria C (embodies the distinctive characteristics of a type, period, or method of construction). The historic Ranch is one of the best known and respected of all cattle operations in the Southwestern United States and has continued to make advances in the cattle industry and agriculture (ranching) to this day. Although Richard King started the breeding program at King Ranch, it was not until Robert Kleberg took over that the Santa Gertrudis breed of cattle was developed, new grasses were introduced, and efforts to control anthrax and Texas tick fever were developed. Other advances in ranching that are attributable to King Ranch are advances in mineral feeding experiments, brush control equipment and methods, soil conservation, range management practices, and wildlife conservation (Texas Historical Commission [THC] 1966).

3.8.1.2.1 Preferred Alternative
GSRC surveyed the Preferred Alternative site on October 22 and 23, 2013 for cultural resources (CBP 2014b). Heavy disturbance was noted across the Preferred Alternative site from either land leveling or the construction of the built environment. The old alignment of US 281 is mapped through this area, though no intact portions of the old alignment were observed within the disturbed area. In addition, the presence of concrete and asphalt observed within a number of push piles within the disturbed areas suggests that the road has been largely removed and stockpiled. A total of 21 shovel tests were excavated within the least disturbed portions of the Preferred Alternative site, and when possible Oakfield cores were also taken. No archaeological resources were identified during testing and no further archaeological work is recommended for the Proposed Action.

Two isolated finds consisting of an associated concrete marker (Isolated Find 1) and a cement fragment and associated iron pipe (Isolated Find 2) were recorded during the pedestrian survey. The small concrete marker (Isolated Find 1) may represent an old ROW marker for the original
alignment of US 281. No other markers or intact portions of the old road alignment were found in association with this marker. As a result, it was recorded as an isolated find and is not considered to be eligible for the NRHP.

The second isolated find consisted of a cement fragment and associated iron pipe that may represent remnants of the old alignment of US 281. It was determined in the field that neither of these associated pieces is *in situ* and that they represent an isolated find and are not considered eligible for the NRHP.

### 3.8.2 Environmental Consequences

#### 3.8.2.1 No Action Alternative

Under the No Action Alternative, construction, operation and maintenance of the new TCP would not occur. Therefore, no potentially occurring cultural resources would be disturbed.

#### 3.8.2.2 Preferred Alternative

A large portion of the Preferred Alternative site has been heavily disturbed from the construction of the current TCP and from land leveling and stockpiling evident by numerous push piles of material. Two isolated finds and no archaeological sites were recorded during the archaeological survey of the area. The isolated finds are not recommended eligible for the NRHP. The portion of the Preferred Alternative site crossing the King Ranch Historic District has been previously disturbed by the previous alignment of US 281 and the current TCP. As a result, no additional adverse effects are anticipated from the proposed expansion of the new TCP. Coordination is ongoing with the Texas SHPO. The draft cultural resources report and a Request for SHPO consultation form was submitted to the Texas SHPO on March 7, 2014.

### 3.9 AIR QUALITY

#### 3.9.1 Affected Environment

USEPA established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. Ambient air quality standards are classified as either "primary" or "secondary." The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead. NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 3-2.

Areas that do not meet these NAAQS are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by USEPA, following the passage of Amendments to the Clean Air Act (CAA) in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.
Table 3-2. National Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Primary Standards</th>
<th>Secondary Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>Averaging Time</td>
</tr>
<tr>
<td>CO</td>
<td>9 ppm (10 mg/m³)</td>
<td>8-hour (1)</td>
</tr>
<tr>
<td></td>
<td>35 ppm (40 mg/m³)</td>
<td>1-hour (1)</td>
</tr>
<tr>
<td>Lead</td>
<td>0.15 µg/m³ (2)</td>
<td>Rolling 3-Month</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average</td>
</tr>
<tr>
<td>NO₂</td>
<td>53 ppb (3)</td>
<td>Annual (Arithmetic Average)</td>
</tr>
<tr>
<td></td>
<td>100 ppb</td>
<td>1-hour (4)</td>
</tr>
<tr>
<td>PM-10</td>
<td>150 µg/m³</td>
<td>24-hour (5)</td>
</tr>
<tr>
<td>PM-2.5</td>
<td>15.0 µg/m³</td>
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<td></td>
<td>35 µg/m³</td>
<td>24-hour (7)</td>
</tr>
<tr>
<td>O₃</td>
<td>0.075 ppm (2008 std)</td>
<td>8-hour (8)</td>
</tr>
<tr>
<td></td>
<td>0.08 ppm (1997 std)</td>
<td>8-hour (9)</td>
</tr>
<tr>
<td></td>
<td>0.12 ppm</td>
<td>1-hour (10)</td>
</tr>
<tr>
<td>SO₂</td>
<td>0.03 ppm</td>
<td>Annual (Arithmetic Average)</td>
</tr>
<tr>
<td></td>
<td>0.14 ppm</td>
<td>24-hour (11)</td>
</tr>
<tr>
<td></td>
<td>75 ppb (11)</td>
<td>1-hour</td>
</tr>
</tbody>
</table>

Source: USEPA 2013a at http://www.epa.gov/air/criteria.html

Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb - 1 part in 1,000,000,000) by volume, milligrams per cubic meter of air (mg/m³), and micrograms per cubic meter of air (µg/m³).

(1) Not to be exceeded more than once per year.
(2) Final rule signed October 15, 2008.
(3) The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.
(4) To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).
(5) Not to be exceeded more than once per year on average over 3 years.
(6) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.
(7) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³ (effective December 17, 2006).
(8) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)
(9) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
   (b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
   (c) USEPA is in the process of reconsidering these standards (set in March 2008).
(10) (a) USEPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").
    (b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1.
(11) (a) Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.
A conformity analysis is the process used to determine whether a Federal action meets the requirements of the General Conformity Rule. It requires the responsible Federal agency to evaluate the nature of a proposed action and associated air pollutant emissions and calculate emissions as a result of that proposed action. If the emissions exceed established limits, known as de minimis thresholds, the proponent is required to implement appropriate mitigation measures. USEPA has designated Brooks County as in attainment for all NAAQS (USEPA 2013b).

3.9.2 Environmental Consequences

3.9.2.1 No Action Alternative

Implementation of the No Action Alternative would not create additional air emissions in the Brooks County airshed.

3.9.2.2 Preferred Alternative

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustion emissions) and the disturbance of soils (fugitive dust) during demolition of existing structures and construction of the new TCP.

Fugitive dust emissions were calculated using the emission factor of 0.19 ton per acre per month (Midwest Research Institute 1996), which is a more current standard than the 1985 PM-10 emission factor of 1.2 tons per acre-month presented in AP-42 Section 13 Miscellaneous Sources 13.2.3.3 (USEPA 2001).

USEPA’s NONROAD Model (USEPA 2009a) was used, as recommended by USEPA’s Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999 (USEPA 2001), to calculate emissions from construction equipment. Combustion emission calculations were made for standard construction equipment, such as front-end loaders, backhoes, bulldozers, and cement trucks. Assumptions were made regarding the total number of days each piece of equipment would be used and the number of hours per day each type of equipment would be used.

Construction workers would temporarily increase the combustion emissions in the airshed during their commutes to and from the project area. Emissions from delivery trucks would also contribute to the overall air emission budget. Emissions from delivery trucks and construction worker commuters traveling to the job site were calculated using USEPA’s preferred on-road vehicle emission model MOVES2010a (USEPA 2009b).

The total air quality emissions were calculated for the demolition and construction activities to compare to the General Conformity Rule. Summaries of the total emissions for the Preferred Alternative are presented in Table 3-3. Details of the analyses are presented in Appendix C.
Table 3-3. Total Air Emissions (tons/year) from the Proposed Action Demolition and Construction versus the \textit{de minimis} Threshold Levels

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Total</th>
<th>\textit{de minimis} Thresholds$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>10.65</td>
<td>100</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>5.13</td>
<td>100</td>
</tr>
<tr>
<td>Nitrogen Oxide (NOx)</td>
<td>19.08</td>
<td>100</td>
</tr>
<tr>
<td>PM-10</td>
<td>19.01</td>
<td>100</td>
</tr>
<tr>
<td>PM-2.5</td>
<td>3.41</td>
<td>100</td>
</tr>
<tr>
<td>SO$_2$</td>
<td>2.27</td>
<td>100</td>
</tr>
<tr>
<td>CO$_2$ and CO$_2$ equivalents</td>
<td>2,304</td>
<td>27,557</td>
</tr>
</tbody>
</table>

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) model projections (Appendix C).

$^1$ Note that Brooks County is in attainment for all NAAQS (USEPA 2013b).

Several sources of air pollutants would contribute to the overall air impacts of the construction project. The results in Table 3-3 included emissions from the following:

1. Combustion engines of construction equipment
2. Construction workers commuting to and from work
3. Supply trucks delivering materials to construction site
4. Fugitive dust from job site ground disturbances

As described in Table 3-3, the emissions from construction activities do not exceed Federal \textit{de minimis} thresholds and thus do not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, the impacts on air quality from the implementation of the Preferred Alternative would be less than significant. During the construction of the new TCP, proper and routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods should be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction areas to minimize the emissions of fugitive dust.

3.10 NOISE

3.10.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (i.e., hearing loss, damage to structures) or subjective judgments (e.g., community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is approximately 3 dB, and the threshold of discomfort or pain is around 120 dB. The A-weighted decibel (dBA) is a measurement of sounds in air as perceived by the human ear. The dBA metric is most commonly used for the measurement of environmental and industrial noise.

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA louder than the same level of intrusive noise during the day. This perception is
largely because background environmental sound levels at night in most areas are also approximately 10 dBA lower than those during the day.

Long-term noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is not a typical average, but is a cumulative measure of noise over a 24-hour period. DNL is the community noise metric recommended by USEPA and has been adopted by most Federal agencies (USEPA 1974). A DNL of 65 dBA is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities like construction.

Acceptable DNL noise levels have been established by the U.S. Department of Housing and Urban Development (HUD) for construction activities in residential areas (HUD 1984):

**Acceptable** (not exceeding 65 dBA) – The noise exposure may be of some concern, but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.

**Normally Unacceptable** (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe. Barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable. Special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.

**Unacceptable** (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

As a general rule, noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance the following relationship is utilized:

Equation 1: \( \text{dBA}_2 = \text{dBA}_1 - 20 \log \left( \frac{d_2}{d_1} \right) \)

Where:
- \( \text{dBA}_2 \) = dBA at distance 2 from source (predicted)
- \( \text{dBA}_1 \) = dBA at distance 1 from source (measured)
- \( d_2 \) = Distance to location 2 from the source
- \( d_1 \) = Distance to location 1 from the source

Source: California Department of Transportation 1998

There are no residential homes, schools, parks, hospitals, or other sensitive noise receptors within 1 mile of the project site.
3.10.2 Environmental Consequences

3.10.2.1 No Action Alternative
Under the No Action Alternative, noise emissions associated with the existing check point (status quo) would be long-term and minor and would continue at the present level. There are no sensitive noise receptors that would be affected by the continued operation.

3.10.2.2 Preferred Alternative
The demolition of existing structures and construction of the new TCP would require the use of common construction equipment. Table 3-4 describes noise emission levels for construction equipment, which range from 76 dBA to 84 dBA at a distance of 50 feet (FHWA 2007).

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>50 feet</th>
<th>100 feet</th>
<th>200 feet</th>
<th>500 feet</th>
<th>1,000 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backhoe</td>
<td>78</td>
<td>72</td>
<td>66</td>
<td>58</td>
<td>51</td>
</tr>
<tr>
<td>Crane</td>
<td>81</td>
<td>75</td>
<td>69</td>
<td>61</td>
<td>54</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>76</td>
<td>70</td>
<td>64</td>
<td>56</td>
<td>49</td>
</tr>
<tr>
<td>Excavator</td>
<td>81</td>
<td>75</td>
<td>69</td>
<td>61</td>
<td>54</td>
</tr>
<tr>
<td>Concrete mixer truck</td>
<td>79</td>
<td>73</td>
<td>67</td>
<td>59</td>
<td>52</td>
</tr>
<tr>
<td>Auger drill</td>
<td>84</td>
<td>78</td>
<td>72</td>
<td>64</td>
<td>57</td>
</tr>
<tr>
<td>Front-end loader</td>
<td>82</td>
<td>76</td>
<td>70</td>
<td>62</td>
<td>55</td>
</tr>
</tbody>
</table>

Table 3-4. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances

Source: FHWA 2007

Assuming the worst case scenario of 84 dBA, the noise model projected that noise levels of 84 dBA from a point source (i.e., bulldozer) would have to travel 450 feet before the noise would be attenuated to an acceptable level of 65 dBA. To achieve an attenuation of 84 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor would have to be 140 feet.

Depending upon the number of construction hours, and the number, type, and distribution of construction equipment being used, the noise levels near the project area could temporarily exceed 65 dBA up to 450 feet from the Preferred Alternative site. A Geographic Information System (GIS) was used to determine the number of sensitive noise receptors within 450 feet from the edge of the Preferred Alternative site corridor. There are no residential homes, parks, hospitals, schools, or other sensitive noise receptors within 450 feet of the Preferred Alternative site.

Noise generated by the construction activities would be intermittent and last for approximately 6 months, after which noise levels would return to ambient levels. Therefore, the noise impacts from construction activities would be considered less than significant. Additionally, the proposed wind turbine will be designed and located such that noise impacts from the operation of the wind turbine would have no significant impact on noise emissions at the Preferred Alternative site.
3.11 UTILITIES AND INFRASTRUCTURE

3.11.1 Affected Environment
The City of Falfurrias provides solid waste services for residences and businesses in the region but does not provide water and sanitary sewer service at the Preferred Alternative site. The existing TCP obtains water from an on-site well and also provides on-site sanitary sewer treatment services. Electricity can be purchased from a number of vendors in the area, including Nueces Electric Cooperative, Oncor, Quality Energy Services, Ambit Energy, Xcel Energy, CenterPoint Energy, TXU Energy, and Electricity Texas.

3.11.2 Environmental Consequences
3.11.2.1 No Action Alternative
The No Action Alternative would preclude the construction, operation, and maintenance of a new TCP, and the availability of utilities and need for additional infrastructure would remain unchanged.

3.11.2.2 Preferred Alternative
A new high-capacity water well equipped with an in-line water treatment system would be installed to replace the existing well and would provide adequate potable water capacity for the agents, staff, and operations. Groundwater at the Preferred Alternative site will come from the Gulf Coast aquifer system. Groundwater wells within the area are managed by the BCGCD, which strives to lessen interference between water wells, minimize drawdown of groundwater levels, prevent the waste of groundwater, and reduce the degradation of groundwater quality within the District (BCGCD 2013). Because there is adequate water capacity for the new water well, no significant impacts would be anticipated. The existing water well would be properly closed following the requirements of state and local regulations for water well closure.

A sewage disposal area would be constructed to manage the sanitary waste and wastewater for the new TCP including waste from the canines. Stormwater retention basins would also be installed to handle excess runoff from the Preferred Alternative site. Electric utilities that currently service the existing TCP would be extended to the new TCP facilities. Due to the sustained winds that are characteristic of the region, the incorporation of wind-energy technology into the TCP design will be given consideration. With the installation of a wind turbine and solar panels as alternate renewable energy sources, a decrease on the demand for electric utilities would be anticipated. The City of Falfurrias would continue to provide services for solid waste disposal. Demolition and construction activities would utilize potable water for dust suppression and concrete mixing. Construction crews would bring water to the site for personal use and fugitive dust control; portable latrines would collect sanitary waste. Since sanitary sewer services will be installed on-site, electric services will expand to the new facility, and solid waste disposal will continue as normal; thus, no significant impacts would be anticipated.
3.12 TRANSPORTATION

3.12.1 Affected Environment
The primary transportation route associated with the TCP is US 281 (see Figure 1-1). Access to the new TCP would be located along the northbound lanes of US 281, approximately 13 miles south of Falfurrias, Texas, and approximately 5 miles north of Encino, Texas. In 2012, the Average Daily Traffic (ADT) count at the location of the checkpoint was 16,500 vehicles (Prime Engineering Inc. [PEI] 2012). This 24-hour traffic volume is within the lowest traffic volume class (less than 20,187 Average Annual Daily Traffic [AADT]).

Within the City of Falfurrias, there are two operational airports and one heliport: Brooks County Airport, Cage Ranch Airport, and Cig 402 Heliport. Brooks County Airport is publicly owned, and both the Cage Ranch Airport and the Cig 402 Heliport are privately owned. The Cage Ranch Airport is the closest airport to the Preferred Alternative site and is located approximately 8 miles southwest of the Falfurrias central business district and 7 miles northwest of the existing TCP. The Cage Ranch Airport is an unattended airport with a 35-foot-wide and 4,100-foot-long asphalt runway with a left traffic pattern approach.

3.12.2 Environmental Consequences
3.12.2.1 No Action Alternative
Under the No Action Alternative, adverse impacts on vehicular traffic would occur. TxDOT growth rates for the last 5 years have increased every year, averaging approximately 5 percent per year. Traffic congestion due to the inadequate number of primary inspection lanes would continue at the existing TCP due to increases in vehicular traffic on US 281. Based on the traffic study conducted in 2012, the expected delays for existing traffic conditions at the existing TCP exceed an average of 230 minutes per passenger vehicle based on the USBP's preferred inspection rate of four passenger vehicles and one commercial vehicle per minute. The delays are expected to increase by a factor of 1.75 over the next 4 years (PEI 2012). Regional air service would be maintained at status quo.

3.12.2.2 Preferred Alternative
Vehicle traffic along US 281 would increase by approximately 47 vehicles per day during the demolition and construction period with the addition of seven heavy-duty delivery trucks and approximately 40 construction personnel passenger vehicles. In 2012, the ADT count at the location of the checkpoint was 16,500 vehicles (PEI 2012). Impacts associated with the increase of less than 1 percent of traffic associated with the construction of the Proposed Action would be negligible. During demolition and project construction, the delivery of materials and equipment could cause minor delays along the affected segment of US 281. Although additional construction traffic would impair traffic flow on US 281, these impacts would be temporary and minor.

The increased number of primary and secondary inspection lanes would beneficially impact traffic conditions at the TCP by relieving congestion in vehicular traffic for both the current conditions and for projected conditions on US 281. Implementation of the new TCP would also provide adequate space for deceleration of northbound traffic on US 281 prior to the TCP (PEI 2012).
The Cage Ranch Airport runway, located approximately 7 miles northwest of the Preferred Alternative site, is oriented with a left approach pattern which ensures that aircraft landing at the airport would approach at a higher elevation to the west of the Preferred Alternative site. Also, the location of a communications tower with a height less than 200 feet would not impact aircraft approach patterns. Therefore, there would be no impacts on aircraft operations at the Cage Ranch Airport from the construction of a communications tower.

### 3.13 AESTHETICS AND VISUAL RESOURCES

#### 3.13.1 Affected Environment
Aesthetics is essentially based on an individual’s or group of individuals’ judgment as to whether or not an object is pleasing or would influence the quality of life. The Preferred Alternative site is located in a rural setting with limited development. The approximately 34-acre parcel for the Preferred Alternative site includes approximately 8 acres of TxDOT land, approximately 7 acres owned by King Ranch, and approximately 19 acres owned by the Rachal Foundation. The undeveloped area surrounding the Preferred Alternative site consists of gently rolling and vegetated rangeland. The Preferred Alternative site contains some development in the form of the current TCP and the ROW for US 281 which reduces the rural aesthetic quality of the area.

#### 3.13.2 Environmental Consequences

**3.13.2.1 No Action Alternative**
Under the No Action Alternative, the new TCP would not be built at the Preferred Alternative site. The site would remain in its current state and no impacts on visual resources would occur.

**3.13.2.2 Preferred Alternative**
Demolition and construction at the Preferred Alternative site would convert approximately 32 acres into buildings and associated TCP facilities. The Preferred Alternative site is a developed area including the existing TCP and TxDOT ROW; however, the surrounding rural setting is relatively undisturbed and includes aesthetic and visual resources. Additional lighting would be anticipated from the increase in the number of inspection lanes and the expansion of the TCP facilities; however, illumination within the work area would be directed down and toward the traffic lanes for inspection and safety purposes. Illumination intensity at ground level adjacent to the security fence would not exceed the real estate boundary for the facility, so impacts to visual resources due to lighting would be negligible. The addition of a wind turbine would detract from the visual character of the surrounding area; however, the total height of the structure would be less than 200 feet, so the impact would be minimal. The conversion of the Preferred Alternative site from the existing TCP into the new TCP would have a negligible impact on aesthetic resources and would not substantially degrade the existing visual character of the region; thus, the impacts would be considered less than significant.

### 3.14 HAZARDOUS MATERIALS

#### 3.14.1 Affected Environment
The USEPA’s mission is to protect humans and the environment and to work to develop and enforce regulations that implement environmental laws enacted by Congress (e.g., the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response,
Compensation, and Liability Act of 1980). The USEPA maintains a list of hazardous waste sites, particularly waste storage/treatment facilities or former industrial manufacturing sites in the U.S. The chemical contaminants released into the environment (air, soil, or groundwater) from hazardous waste sites may include heavy metals, organic compounds (including solvents), and other chemicals. The potential adverse human health impact of hazardous waste sites is a considerable source of concern to the general public, as well as to government agencies and health professionals.

Solid and hazardous wastes are regulated in Texas by a combination of mandated laws promulgated by the USEPA, the TCEQ, and regional Councils of Government. A search was conducted on USEPA’s Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List (NPL) or being considered for the NPL. A Phase I Environmental Site Assessment was conducted and there were no hazardous wastes or recognized environmental conditions at the Preferred Alternative site.

3.14.2 Environmental Consequences

3.14.2.1 No Action Alternative
Under the No Action Alternative, the new TCP would not be built at the Preferred Alternative site. The site would remain in its current state and no additional impacts from hazardous and regulated wastes and substances are anticipated.

3.14.2.2 Preferred Alternative
All hazardous and regulated wastes and substances generated by operation of the new TCP would be collected, characterized, labeled, stored, transported, and disposed of in accordance with all Federal, state, and local regulations, including proper waste manifesting procedures. All other hazardous and regulated materials or substances would be handled according to material safety data sheet (MSDS) instructions and would not affect water, soils, vegetation, wildlife, or the safety of USBP agents and staff.

Aboveground storage tanks (ASTs) installed at the new TCP would include containment berms or would be double-walled to prevent the release of any tank spills into the environment. An SPCCP would be prepared and maintained to meet the requirement for cumulative AST capacity that exceeds 1,320 gallons. Used fuel confiscated from impounded vehicles will be stored in 55-gallon drums with a secondary spill containment basin. Confiscated hazardous materials would be stored in sealed containers for later off-site disposal. Therefore, hazardous and regulated materials and substances would not impact the public or the environment. The potential impacts of the handling and disposal of hazardous and regulated materials and substances during the demolition of the existing TCP and construction of the new TCP facilities would be less than significant.
3.15 SUSTAINABILITY AND GREENING

3.15.1 Affected Environment
In accordance with EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) (72 FR 3919), CBP would incorporate practices in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient and sustainable manner in support of their mission. CBP implements practices throughout the agency to 1) improve energy efficiency and reduce GHG emissions; 2) implement renewable energy projects; 3) reduce water consumption; 4) incorporate sustainable environmental practices such as recycling and the purchase of recycled-content products; and 5) reduce the quantity of toxic and hazardous materials used and disposed of by the agency. Additionally, the proposed new TCP would meet Federal requirements for energy and water efficiency and would be designed to qualify for LEED Silver certification by the U.S. Green Building Council. DHS would also reduce total consumption of petroleum products, as set forth in the EO, and use environmentally sound practices with respect to the purchase and disposition of electronic equipment.

3.15.2 Environmental Consequences

3.15.2.1 No Action Alternative
Under the No Action Alternative, the new TCP would not be built and the USBP agents would continue to use the existing TCP. The current checkpoint was built in 1994, without many of the modern energy-saving technologies developed over the last 2 decades. CBP would improve its environmental, transportation, and energy-related activities in support of their mission through sustainability and greening practices, to the greatest extent practicable.

3.15.2.2 Preferred Alternative
Under the Preferred Alternative, CBP would continue to improve its environmental, transportation, and energy-related activities in support of their mission through sustainability and greening practices, to the greatest extent practicable. CBP also intends to obtain the goal of reducing petroleum-based product use with a Fleet Management Plan facilitated through CBP’s Asset Management Division. This project would adhere to this management plan. The new TCP would be designed to qualify for LEED Silver certification, would provide energy from renewable resources such as a wind turbine and solar panels, and would improve water use efficiencies relative to the continued use of the existing TCP.

3.16 HUMAN HEALTH AND SAFETY

3.16.1 Affected Environment
Human health effects occur in a variety of forms, such as exposure to chemicals, extreme temperatures, weather, and physical security and safety. Generally, human health factors are driven by factors that differ substantially by geographic area. In the TCP area, factors that could impact human health range from automobile accidents, extreme weather such as thunderstorms with lightning, hurricanes, high temperatures, impacts from the wind turbine, and physical security on the site, as well as minimizing the chance that non-site workers could venture onto the project site and be harmed. The area surrounding the TCP consists of rural agricultural and rangeland with no residential developments in the immediate vicinity.
3.16.2 Environmental Consequences

3.16.2.1 No Action Alternative
Under the No Action Alternative, the new TCP would not be built at the Preferred Alternative site. The TCP would continue to operate in its current state, which does not provide adequate space and facilities for current operations. In addition, the width of the approach lanes would continue to be insufficient in order to safely conduct primary inspections and to allow for the free flow of public traffic during times when the TCP is closed. The inadequate number of primary inspection lanes would continue to result in traffic congestion due to increase in vehicular traffic. Inadequate lighting and the inability to operate the TCP during extremely hot or other inclement conditions would persist. The failure of the current TCP to provide a safe, effective, and efficient working environment results in long-term adverse impacts on human health and safety.

3.16.2.2 Preferred Alternative
The construction of the proposed TCP has the potential to create human health hazards. All construction activities, regardless of the area, would be limited to daylight hours only. Safety buffer zones would be designated around all construction sites to ensure public health and safety. Through BMPs developed for general construction practices (see Section 5.1), and because of the rural nature of the project area, no significant, long-term, adverse impacts would be expected. In compliance with Occupational, Safety, and Health Administration (OSHA) regulations, there would be a Right-to-Know station located in a high-visibility area, where chemical data are accessible by construction and CBP personnel. MSDS information would be readily accessible at this TCP. As mentioned previously, an SPCCP would also be implemented that describes planning, prevention, and control measures to minimize impacts resulting from a spill of any hazardous materials or petroleum, oils, and lubricants (POL). Furthermore, an on-site emergency plan would be prepared to protect the public health, safety, and environment on and off the Preferred Alternative site in the case of a dangerous natural phenomenon or industrial accident relating to or affecting the project. CBP would prepare the plan and be responsible for implementing the plan with its operations team in coordination with the local emergency response support functions. The plan would describe the emergency response procedures to be implemented during various situations that might affect the surrounding community or environment. The emergency plan would cover a number of events that may occur at or near the project site by natural causes, equipment failure, or human mistake, including the following:

- Personnel injury
- Construction emergencies
- Project evacuation
- Fire or explosion
- Extreme weather

The project contractors and operations personnel would receive regular emergency response and safety training to ensure that effective and safe action would be taken to reduce and limit the impact of an emergency at the project site. The following actions would be taken for personnel injuries:
• The site construction manager(s), supervisor(s), or designee, would be notified of the injury(s).
• A qualified first aid attendant would administer first aid until medical assistance arrives.
• The site construction manager(s), supervisor(s), or designee, would notify CBP and the county-wide emergency response (911) system.
• All key supervisors would be paged or called and advised of the injury.

An increase in automobile traffic associated with construction and operation would occur on US 281. In 2012, the ADT count at the location of the checkpoint was 16,500 vehicles (PEI 2012). Impacts associated with the increase of less than 1 percent of traffic associated with the construction of the Proposed Action would be negligible. Although the model for the wind turbine has not been selected, the impacts on human health will be considered when choosing the design and the location of the wind turbine to minimize effects to reasonable levels. Therefore, the impacts on human health and safety would be less than significant.

Beneficial impacts would be anticipated with the implementation of the Proposed Action. The new TCP would provide adequate space and facilities for operations. In addition, the width of the approach lanes would be sufficient in order to safely conduct primary inspections and to allow for the free flow of public traffic during times when the TCP is closed. The increase in the number of primary inspection lanes would alleviate traffic congestion. Adequate lighting would be installed and the new TCP would be designed to facilitate operations during extremely hot or other inclement conditions. Construction of the new TCP will provide a safe, effective, and efficient working environment and would result in long-term beneficial impacts on human health and safety.

3.17 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

3.17.1 GHG Threshold of Significance
The CEQ drafted guidelines for determining meaningful GHG decision-making analysis. The CEQ guidance states that if a proposed action would be reasonably anticipated to cause direct emissions of 25,000 metric tons (27,557 U.S. tons) or more of CO2 GHG emissions on an annual basis, agencies should consider this a threshold for decision makers and the public. CEQ does not propose this as an indicator of a threshold of significant effects, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHG (CEQ 2010).

The GHG covered by EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, are CO2, CH4, N2O, hydrofluorocarbons (HFC), perfluorocarbons, and sulfur hexafluoride. These GHG have varying heat-trapping abilities and atmospheric lifetimes. CO2 equivalency (CO2e) is a measuring methodology used to compare the heat-trapping impact from various GHG relative to CO2. Some gases have a greater global warming potential than others. NOx, for instance, have a global warming potential that is 310 times greater than an equivalent amount of CO2, and CH4 is 21 times greater than an equivalent amount of CO2.
3.17.2 Environmental Consequences

3.17.2.1 No Action Alternative
Under the No Action Alternative no construction would occur; therefore, there would be no increased emissions of GHG.

3.17.2.2 Preferred Alternative
The total estimated emissions of CO₂ and CO₂e from the proposed TCP construction activities at the Preferred Alternative site would be 2,304 tons per year (Appendix C). Therefore, the estimated emissions of GHG from the Proposed Action would be well below the Federal *de minimis* threshold and the threshold recommended by CEQ for additional evaluation.
SECTION 4.0
CUMULATIVE IMPACTS
This section of the EA addresses the potential cumulative impacts associated with the implementation of the Preferred Alternative and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7).” As stated in 40 CFR 1508.7, “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

USBP has been conducting law enforcement actions along the border since its inception in 1924, and has continuously transformed its methods as new missions, illegal cross-border violator modes of operations, agent needs, and National enforcement strategies have evolved. Development and maintenance of training ranges, station and sector facilities, detention facilities, and roads and fences have impacted thousands of acres with synergistic and cumulative impacts on soil, wildlife habitats, water quality, and noise. Beneficial effects, too, have resulted from the construction and use of these roads and fences, including, but not limited to, increased employment and income for border regions and surrounding communities; protection and enhancement of sensitive resources north of the U.S./Mexico border; reduction in crime within urban areas near the border; increased land value in areas where border security has increased; and increased knowledge of the biological communities and pre-history of the region through numerous biological and cultural resources surveys and studies.

With continued funding and implementation of USBP’s environmental conservation measures, including environmental education and training of its agents, use of biological and archaeological monitors and restoration activities, adverse impacts of future and ongoing projects would be prevented or minimized. However, recent, ongoing, and reasonably foreseeable proposed projects would result in cumulative impacts. CBP recently constructed new USBP stations in Corpus Christi and Kingsville, Texas. CBP also modernized their tactical communications system including collocated antennas and receivers on existing communications towers and the construction of new communications towers within the Rio Grande Valley AOR.

In coordination with USFWS, CBP and USBP have constructed two access alignments, approximately 0.67 mile in length, and one low-water crossing, and repaired 768 feet of existing road near Fronton, Texas within the Lower Rio Grande Valley National Wildlife Refuge property. In Hidalgo and Cameron counties, Texas, CBP constructed 42 gates and a total of approximately 1.13 miles (approximately 5,970 feet) of pedestrian fence and patrol/maintenance and access roads, as well as concrete flood protection structures/concrete fences and patrol/maintenance and access roads. Within the next 5 to 10 years, CBP plans to build a new USBP station in Roma, Texas.

Additionally, USBP might be required to implement other activities and operations that are currently not foreseen or mentioned in this document. These actions could be in response to National emergencies or security events like the terrorist attacks on September 11, 2001, or to changes in the mode of operations of cross-border violators.
Major road construction projects completed or ongoing within Brooks County include the construction of an overpass/underpass on US 281 at Farm to Market 755 and improvements on 6 miles of US 281 as part of the I-69 corridor development project. Brooks County also recently expanded the Brooks County Detention Center. Within the next 5 years, Brooks County plans to replace a bridge on County Road 101, as well as the installation/upgrade of drainage structures 488 feet east of Business 281 in Falfurrias, Texas.

A summary of the anticipated cumulative impacts relative to the Preferred Alternative is presented below. These discussions are presented for each of the resources described previously.

4.1 LAND USE

A significant impact would occur if any action is inconsistent with adopted land use plans or if an action would substantially alter those resources required for, supporting, or benefiting the current use. The Preferred Alternative site is located immediately adjacent to US 281 and encompasses the existing TCP. No significant cumulative impacts on land use would occur, since the loss of up to 32 acres of undeveloped land is not significant in comparison with the large amount of similar land use in the vicinity and the Preferred Alternative site currently includes the existing TCP. The Proposed Action would not promote an increase of development, and the area is not currently zoned. Therefore, the Proposed Action would not be expected to result in a significant cumulative adverse effect.

4.2 SOILS

A significant impact would occur if the action exacerbates or promotes long-term erosion, if the soils are inappropriate for the proposed construction and would create a risk to life or property, or if there would be a substantial reduction in agricultural production or loss of prime farmland soils. Although the Proposed Action would remove less than 34 acres of soils from biological production, none of these soils are under agricultural production and approximately 2 acres are already disturbed due to the existing TCP. Additionally, very little development is anticipated in the area surrounding the TCP and Brooks County, and no prime farmland soils would be removed as part of the Proposed Action. Construction plans would include a SWPPP which implement soil erosion measures. The impact from construction of the TCP, when combined with past and proposed projects in the region, would not be considered a significant cumulative adverse effect relative to soil erosion and sedimentation.

4.3 WATER RESOURCES

The significance threshold for surface water includes any action that substantially depletes surface water supplies, substantially alters drainage patterns, or results in the loss of waters of the U.S. that cannot be compensated. No surface water or groundwater resources would be impacted from the new TCP or from other projects proposed regionally; therefore, there would not be any cumulative impacts on water resources.
4.4 VEGETATIVE HABITAT

The significance threshold for vegetation would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. Very few new projects are proposed in Brooks County or regionally, and past, present, and future CBP projects in the Rio Grande Valley sectors have avoided impacting native vegetation communities and have removed invasive plant species. No identified projects would threaten the viability of any plant species or community, and the vegetation lost during the development of the new TCP is locally and regionally common. Therefore, there would be no significant cumulative impacts on vegetation.

4.5 WILDLIFE RESOURCES

The significance threshold for wildlife resources would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. No rare or sensitive habitats would be impacted from projects proposed locally or regionally, and the majority of CBP projects in the Rio Grande Valley and Laredo sectors would occur in developed and urban areas. The wind turbine proposed at the new TCP will be designed and located such that potential impacts to wildlife would be minimized. Adverse effects of nighttime lighting on migratory bird and nocturnal flying species will be reduced from the implementation of the USFWS Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers (USFWS 2000) and Recommendations for Design and Construction of Cell Phone and Other Towers (USFWS 2008). Therefore, no significant cumulative impacts on wildlife would occur.

4.6 THREATENED AND ENDANGERED SPECIES

A significant impact on threatened and endangered species would occur if any action resulted in a jeopardy opinion for any endangered, threatened, or rare species. One Federally listed species, the northern aplomado falcon, has the potential to occur on the Preferred Alternative site but would likely avoid any construction-related activity by relocating to nearby areas of similar suitability if they occur. Three state protected reptiles (Texas horned lizard, keeled earless lizard, and Texas indigo snake) were observed at the Preferred Alternative site during the biological resources survey. Efforts will be made to avoid direct impacts on all wildlife, including state-protected wildlife, during construction-related activities. The conversion of the Preferred Alternative site from an existing TCP and disturbed privately owned land to a new TCP, in combination with other development projects in south Texas, would have no adverse effects on Federally listed species. Therefore, no cumulative impacts on threatened and endangered species are anticipated.

4.7 CULTURAL RESOURCES

The Proposed Action at the Preferred Alternative site would have no effect on cultural resources because no eligible sites would be impacted from the development of the new TCP, and all CBP
projects include Section 106 consultation with an outcome of reducing impacts on cultural resources.

4.8 AIR QUALITY

Impacts on air quality would be considered significant if the action results in a violation of air quality standards, obstructs implementation of an air quality plan, or exposes sensitive receptors to substantial pollutant concentrations. The emissions generated during the demolition of the existing TCP and the construction of the new TCP would be short-term and minor. A temporary increase in construction-related vehicular traffic to the new TCP would result in cumulative impacts on the region’s airshed; however, these impacts would not be considered significant, even when combined with the other proposed developments in Brooks County. The new TCP is located within a rural location, wind patterns would allow for vehicle emissions to dissipate, and Brooks County is well within attainment for all NAAQS.

4.9 NOISE

Actions would be considered to cause significant impacts if they permanently increase ambient noise levels over 65 dBA. Most of the noise generated by the Preferred Alternative would occur during construction, would be temporary, and, thus, would not contribute to cumulative impacts on ambient noise levels. Thus, the noise generated by the construction of the new TCP, when considered with the other existing and proposed projects in the region, would not contribute to a significant cumulative adverse effect.

4.10 UTILITIES AND INFRASTRUCTURE

Actions would be considered to cause significant impacts if they require greater utilities or infrastructure use than can be provided. The Falfurrias area has adequate capacity in the utilities infrastructure for increased demand and growth. Construction of the new TCP, in conjunction with other potential development along US 281, would not exceed any local or regional infrastructure limits. Also, construction of a wind turbine and solar panels for use as renewable energy sources at the new TCP would result in a beneficial impact on utilities by reducing the demand for electric power. Therefore, this action would not contribute to a significant cumulative adverse effect on utilities and infrastructure.

4.11 TRANSPORTATION

Impacts on traffic or roadways would be considered to cause significant impacts if the increase of ADT exceeded the ability of the surface streets to offer a suitable level of service for the area. No other projects in the City of Falfurrias or Brooks County are proposed that would increase vehicular traffic on US 281 and the implementation of the Proposed Action would result in a beneficial impact by reducing traffic congestion at the TCP. Therefore, there would be no cumulative impacts on transportation.
4.12 AESTHETICS AND VISUAL RESOURCES

Actions that cause the permanent loss of the characteristics that make an area visually unique or sensitive would be considered to cause a significant impact. No past, present, or future project has been identified that would impact any sensitive visual resource. The development of the Preferred Alternative site would not cause a substantial change in aesthetics as viewed from US 281. Therefore, there would not be a significant cumulative impact on aesthetics or visual resources.

4.13 HAZARDOUS MATERIALS

Significant impacts would occur if an action creates a public hazard, if the site is considered a hazardous waste site that poses health risks, or if the action would impair the implementation of an adopted emergency response or evacuation plan. Only minor increases in the use of hazardous substances (e.g., POL) would occur as a result of the expansion of the TCP. BMPs would be implemented to minimize the risk from hazardous materials during construction at the TCP. No health or safety risks would be created by the Proposed Action. The effects of this Proposed Action, when combined with other ongoing and proposed projects in the region, would not be considered a significant cumulative effect.

4.14 SUSTAINABILITY AND GREENING

CBP would implement the Federal sustainability and greening practices to the greatest extent practicable as part of the Proposed Action. Cost-effective waste reduction and recycling of reusable materials would be implemented as part of the project. Consideration will also be given to incorporating wind-energy technology into the TCP design, due to the sustained winds that are characteristic of the region. Implementation of the Federal sustainability and greening practices would have a cumulative beneficial impact on the environment.

4.15 HUMAN HEALTH AND SAFETY

The proposed project occurs in an area that is not residential. Typically, CBP construction activities are completed by National Guard Units, USBP agents, or private contractors, who are all well-trained and cognizant of all required safety measures. The proposed construction of the new TCP would be provided by private contractors, who would be required to comply with all appropriate OSHA and other safety laws and regulations. The land at the Preferred Alternative site is generally flat, and no physical features are present that would make the site more prone to health and safety issues. The overall decrease in vehicular traffic congestion to the area from the operation of the new TCP would result in a beneficial impact on health and human safety. The effects of this Proposed Action, when combined with other ongoing and proposed projects in the region, would not be considered a significant cumulative adverse effect.

4.16 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Impacts on climate change would be considered significant if the action results in long-term GHG emissions that could contribute to global changes in climatic conditions. All of the CO₂e
emissions associated with the demolition of existing structures and TCP construction would be short-term, and no regional projects are proposed by CBP or others that would substantially increase CO$_2$e emissions. Further, the new TCP would be more energy-efficient than the current facilities, reducing energy consumption in the long term.
SECTION 5.0
BEST MANAGEMENT PRACTICES
5.0 BEST MANAGEMENT PRACTICES

This chapter describes those measures that will 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. BMPs will be presented for each resource category that would be potentially affected. It should be emphasized that these are general mitigation measures; development of specific mitigation measures will be required for certain activities implemented under the action alternatives. The proposed mitigation measures will be coordinated through the appropriate agencies and land managers/administrators, as required.

It is Federal policy to mitigate adverse impacts through the sequence of avoidance, minimization, and compensation. Compensation varies, and includes activities such as restoration of habitat in other areas, acquisition of lands, etc., and is typically coordinated with the USFWS and other appropriate Federal and state resource agencies.

5.1 GENERAL CONSTRUCTION ACTIVITIES

BMPs such as proper handling, storage, or disposal of hazardous or regulated materials will be implemented as standard operating procedures during all construction activities. 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 following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it would be unlikely for a major spill to occur, any spill of a reportable quantity will be contained immediately within an earthen dike, and an absorbent (e.g., granular, pillow, sock) will be applied to absorb and contain the spill. Any major reportable spill of a hazardous or regulated substance will be reported immediately to on-site environmental personnel, who would notify appropriate Federal and state agencies. In addition to the SWPPP, an SPCCP will be in place prior to the start of construction, and all personnel will be briefed on the implementation and responsibilities of this plan.

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 Federal, state, and local regulations, including proper waste manifesting procedures.

Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in the on-site receptacles. Solid waste receptacles will be maintained and solid waste will be collected and disposed of by a local waste disposal contractor.

5.2 SOILS

Suitable fencing will be installed around the perimeter of the construction area to contain vehicles and people and prevent accidental soil impacts on adjacent properties. Vehicular traffic associated with the construction activities and operational support activities will remain on
established roads to the maximum extent practicable. Areas with highly erodible soils will be given special consideration when designing the proposed project to ensure incorporation of various BMPs, such as the use of straw bales, aggregate materials, and wetting compounds, to decrease erosion. A SWPPP will be prepared prior to construction activities, and BMPs described in the SWPPP shall be implemented to reduce erosion. Furthermore, all areas not immediately developed will be landscaped with native plant species, where appropriate, in order to minimize erosion.

5.3 VEGETATIVE HABITAT

All construction equipment will be cleaned of caked mud and soil material prior to entering the project corridor to minimize the potential spread of non-native invasive plant species. Soil disturbances in temporarily impacted areas will be revegetated using an approved seed mix. To reduce impacts on vegetation all disturbance areas will be clearly marked with easily observed removable or biodegradable markers, and all construction actions will be restricted to the designated disturbance areas.

5.4 WILDLIFE RESOURCES

To minimize impacts to migratory bird species, efforts will be made to schedule all clearing and grubbing activities outside the nesting season; however, if construction or clearing activities for the new TCP are scheduled during the nesting season (typically April 1 – July 15), preconstruction surveys for migratory bird species to identify active nests will occur immediately prior to the start of any construction activity. If active nests are observed during the preconstruction surveys, a 150-foot buffer of vegetation will be left intact until the young have fledged or the nest is abandoned. If establishing a buffer zone is not feasible, CBP will coordinate with the USFWS and TPWD for guidance to minimize impacts on migratory birds associated with the proposed project or removal of an active nest. To lessen noise impacts on wildlife communities, construction will only occur during daylight hours whenever possible.

USFWS Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers (USFWS 2000) and Recommendations for Design and Construction of Cell Phone and Other Towers (USFWS 2008) will be implemented to include actions to reduce nighttime atmospheric lighting and the potential adverse effects of nighttime lighting on migratory bird and nocturnal flying species. Shields will be installed on outdoor lights to reduce background lighting. Lights will also be installed such that the direction of illumination is downward toward the TCP facilities.

Perimeter fencing will be limited to the smallest area necessary for the new TCP, and any areas outside the perimeter of any fencing and security clear zone will be planted with native thorny shrub-scrub vegetation. Other efforts to reduce potential impacts on wildlife species will include the following:

- Inform all contractors/construction personnel of the occurrence of sensitive species within the project area prior to the commencement of construction activity.
- Establish demarcated construction area perimeters to avoid or minimize habitat loss adjacent to the project area footprint.
- Establish speed limits within the project area that minimize wildlife mortality associated with vehicles and equipment.
- Cover all excavated, steep-walled holes or trenches more than 2 feet deep at the end of each workday with plywood or provide escape ramps with earthen fill or wooden planks at slopes less than 45 degrees to prevent entrapment.
- Avoid all contact with wildlife and if encountered within the project area, allow the wildlife to move away on its own, to the extent practicable and with construction schedule permitting.
- Due to the observed presence of Texas horned lizard in the immediate project area, an exclusion fence will be constructed and will consist of metal flashing or drift fencing buried at least 6 inches deep and 24 inches high.

5.5 CULTURAL RESOURCES

Although no cultural resources are known to be present within the project area, unanticipated subsurface deposits are possible at any undertaking that disturbs the ground surface. Evidence of subsurface deposits may be in the form of subsurface artifacts (lithics, ceramics, ground stone, bone, metal, and glass), charcoal, stained soil, or burned rocks. If previously unknown cultural resources are exposed by construction activities associated with the proposed development, work will stop in the immediate vicinity, the resources will be protected, and the SHPO will be notified within 24 hours of discovery. If, in consultation with the SHPO, it is determined that the resource is significant and if a significant resource cannot be avoided by construction, then an archaeological data recovery plan will be prepared in consultation with the SHPO and will be implemented.

If unmarked human burials are discovered during construction, work will stop in the immediate vicinity, the remains will be protected, and the local law enforcement agency and the SHPO will be notified as soon as possible. The location of the unmarked human burial will be documented, and the provisions of the Native American Graves Protection and Repatriation Act will be implemented, including consultation with Native American tribes.

5.6 AIR QUALITY

Mitigation measures will include suitable fencing to restrict traffic within the project area to reduce soil disturbance. Soil watering will be utilized to minimize airborne particulate matter created during construction activities. Bare ground will be covered with hay or straw to lessen wind erosion between the time of initial construction and landscaping. After the construction is completed, all areas with vehicle traffic will be paved or stabilized to reduce the potential for fugitive dust, and landscaping will be designed to prevent or lessen wind fugitive dust creation. Additionally, all construction equipment and vehicles will be kept in good operating condition to minimize exhaust emissions.
5.7 WATER RESOURCES

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. Sedimentation and pollution of surface waters by POL will be minimized through the implementation of the SWPPP. The construction of the new TCP would alter natural drainage patterns; however, proper stormwater retention measures will be incorporated into the design. All fuel tanks will be double-walled to prevent leaks from entering the groundwater.

5.8 NOISE

During the construction phase, short-term noise impacts are anticipated. All OSHA requirements will be followed. To lessen noise impacts on the local residents and wildlife communities, construction will only occur during daylight hours, whenever possible. All motor vehicles will be maintained to reduce the potential for vehicle-related noise.

5.9 SOLID AND HAZARDOUS WASTES

Care will be taken to avoid impacting the project area with hazardous substances (i.e., anti-freeze, POL) used during construction. Although catch pans will be used when refueling, accidental spills could occur as a result of maintenance procedures to construction equipment. A spill could result in potentially adverse impacts on soils and water, as well as threaten the health of wildlife and vegetation. However, the amount of POL is limited, and equipment necessary to quickly contain any spills will be present when refueling.

Although it would be unlikely for a major spill to occur, any spill of a reportable quantity will be contained immediately within an earthen dike, and an absorbent (e.g., granular, pillow, sock) applied to absorb and contain the spill. Any reportable spill of a hazardous or regulated substance will be reported immediately to on-site environmental personnel who will notify appropriate Federal and state agencies. A construction SPCCP will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan. Additionally, an operational SPCCP will be prepared and complied with for the life of the TCP.

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 Federal, state, and local regulations, including proper waste manifesting procedures.

5.10 TRANSPORTATION

During the design phase of the new TCP, measures to ensure that impacts on traffic flow are minimized will be considered. Additional vehicular entrances, speed zones, and traffic signals, or signs would be reviewed as measures to ease the impacts of traffic. CBP will coordinate with the TxDOT and Brooks County to address any traffic or safety impacts associated with the Proposed Action.
6.0 REFERENCES


7.0 ACRONYMS AND ABBREVIATIONS

AADT  Annual Average Daily Traffic
ADT   Average Daily Traffic
ACHP  Advisory Council on Historic Preservation
A.D.  *Anno Domini*
amsl Above Mean Sea Level
AOR   Area of Responsibility
AST   Aboveground Storage Tanks
B.C.  Before Christ
BCGCD Brush County Groundwater Conservation District
BMP   Best Management Practice
B.P.  Before Present
CAA   Clean Air Act
CBP   U.S. Customs and Border Protection
CERCLIS Comprehensive Environmental Response, Compensation, and Liability Information System
CEQ   Council on Environmental Quality
CFR   Code of Federal Regulations
CH4   Methane
CO    Carbon Monoxide
CO2   Carbon Dioxide
CO2e  CO2 equivalency
dB    Decibel
dBA   A-weighted Decibel
DDT   Dichlorodiphenyltrichloroethane
DHS   Department of Homeland Security
DNL   Day-Night Sound Level
EA    Environmental Assessment
EIS   Environmental Impact Statement
EO    Executive Order
ESA   Endangered Species Act
FHWA  Federal Highway Administration
FONSI Finding of No Significant Impact
FR    Federal Register
GHG   Greenhouse Gases
GIS   Geographic Information System
GSRC  Gulf South Research Corporation
HFC   Hydrofluorocarbons
HUD   U.S. Department of Housing and Urban Development
LEED  Leadership in Energy and Environmental Design
MSDS  Material Safety Data Sheet
NAAQS National Ambient Air Quality Standards
NEPA  National Environmental Policy Act
NHPA  National Historic Preservation Act
N2O   Nitrous Oxide
NOx  Nitrogen Oxides
NO₂  Nitrogen Dioxide
NOA  Notice of Availability
NPL  National Priorities List
NPS  National Park Service
NRCS Natural Resources Conservation Service
NRHP National Register of Historic Places
O₃  Ozone
OSHA  Occupational, Safety, and Health Administration
PM-2.5 Particulate Matter Less than 2.5 Microns
PM-10 Particulate Matter Less than 10 Microns
POL Petroleum, Oils, and Lubricants
ppb  Parts Per Billion
ppm  Parts Per Million
ROI  Region of Influence
ROW  Right-of-Way
SHPO State Historic Preservation Officer
SO₂  Sulfur Dioxide
SPCCP Spill Prevention, Control, and Countermeasures Plan
SWPPP Stormwater Pollution Prevention Plan
TAC  Texas Administrative Code
TCEQ  Texas Commission on Environmental Quality
TCP  Traffic Checkpoint
THC  Texas Historical Commission
TPWD  Texas Parks and Wildlife Department
TxDOT  Texas Department of Transportation
TXNDD Texas Natural Diversity Database
U.S. United States
USACE  U.S. Army Corps of Engineers
USBP  U.S. Border Patrol
USC  U.S. Code
USEPA  U.S. Environmental Protection Agency
USFWS  U.S. Fish and Wildlife Service
VOC  Volatile Organic Compounds
μg/m³  Micrograms per Cubic Meter of Air
SECTION 8.0
LIST OF PREPARERS
### 8.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this EA.

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THE PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE
U.S. BORDER PATROL FALFURRIAS STATION TRAFFIC CHECKPOINT
U.S. BORDER PATROL, RIO GRANDE VALLEY SECTOR

Mailing List
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The Honorable Wallace Coffey  
Chairman  
Comanche Nation  
584 NW Bingo Road  
Lawton, OK 73507  

Subject: U.S. Customs and Border Protection Environmental Assessment for the Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Chairman Coffey:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that addresses the potential effects, beneficial and adverse, resulting from the proposed construction and maintenance of a new U. S. Border Patrol (USBP) traffic checkpoint in Falfurrias, Brooks County, Texas. The capacity of the current traffic checkpoint, which was built in 1994, has become inadequate due to the significant increase in traffic flow. The proposed new traffic checkpoint would replace the existing inadequate one on U. S. Highway 281 with a traffic checkpoint meeting current and projected USBP requirements.

The proposed new traffic checkpoint would substantially reduce overcrowded conditions and enhance the overall safety and operational efficiency of current and future operations of USBP’s Falfurrias traffic checkpoint. The new traffic checkpoint would provide adequate space for inspection, equipment storage, and vehicle parking, as well as provide a safe environment for USBP personnel and visitors. CBP has identified the Area of Potential Effect (APE) as one undeveloped site of approximately 34 acres (Figure 1).

We are currently in the process of gathering the most current information available, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. CBP respectfully requests that you provide information on any cultural resources that you believe may be affected by the proposed USBP activities in Brooks County, Texas. A cultural resources survey is being conducted for the proposed project areas, and we will provide you with a copy of the cultural resources report for your comment once it is prepared, if requested.

We intend to provide your Tribe with a copy of the Draft EA, once the document is completed. Please inform us if additional copies are needed and/or if someone else within your Tribe other than you should receive the Draft EA.
The Honorable Wallace Coffey
Page 2

If you have any questions of concerns please feel free to contact Mr. Frank Reilly by phone at (571) 633-7638 (Office), (540) 455-1452 (Mobile), or via email at freilly@lmi.org. Thank you for your cooperation.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosure
THIS PAGE LEFT INTENTIONALLY BLANK
Mr. Mark Wolfe  
State Historic Preservation Officer  
Texas Historical Commission  
108 W. 16th Street  
Austin, TX 78701

DEC. 9, 2013

Subject: U.S. Customs and Border Protection Environmental Assessment for the Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Mr. Wolfe:

U.S. Customs and Border Protection (CBP) is preparing an Environmental Assessment (EA) that addresses the potential effects, beneficial and adverse, resulting from the proposed construction and maintenance of a new U.S. Border Patrol (USBP) traffic checkpoint in Falfurrias, Brooks County, Texas. The capacity of the current traffic checkpoint, which was built in 1994, has become inadequate due to the significant increase in traffic flow. The proposed new traffic checkpoint would replace the existing inadequate one on U.S. Highway 281 with a traffic checkpoint meeting current and projected USBP requirements.

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We are currently in the process of gathering the most current information available, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800. CBP respectfully requests that you provide information on any cultural resources that you believe may be affected by the proposed USBP activities in Brooks County, Texas. A cultural resources survey is being conducted for the proposed project area, and we will provide you with a copy of the cultural resources report for your comment once it is prepared.

We intend to provide your agency with a copy of the Draft EA, once the document is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.
If you have any questions or concerns please feel free to contact Mr. Frank Reilly by phone at (571) 633-7638 (Office), (540) 455-1452 (Mobile), or via email at freilly@lmi.org. Thank you for your cooperation.

Sincerely,

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosure
Figure 1. Vicinity Map
December 19, 2013

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
US Customs and Border Protection
1300 Pennsylvania Avenue NW
Washington, DC 20229

Subject: EA for the Proposed US Border Patrol Falfurrias Traffic Checkpoint, RGV Sector, Texas

Dear Mr. Enriquez

We received your letter dated December 9, 2013 regarding the above referenced project. At this time, the Texas Department of Transportation (TxDOT) does not have any comments on the proposed relocation of the US Border Patrol Falfurrias Traffic Checkpoint, in the Rio Grande Valley Section of Texas. We reserve the right to comment on the Draft Environmental Assessment (EA).

Please provide a copy of the Draft EA once it is completed, to Ms. Norma Y. Garza, P.E., Advance Planning and Project Management Supervisor.

If you have any questions, you may contact her at 956-702-6180.

Sincerely,

[Signature]

Toribio Garza, Jr., P.E.
Pharr District Engineer
In response to your request, the above referenced project has been reviewed by staff of this office. Based on the information provided and a search within the Comanche Nation Site Files, we have determined that there are **no properties** affected by the proposed undertaking.

If you require additional information or are in need of further assistance, please contact this office at (580) 595-9960 or 9618.

This review is performed in order to identify and preserve the Comanche Nation and State's cultural heritage, in conjunction with the State Historic Preservation Office.

Jimmy W. Arterberry, THPO
Comanche Nation
P.O. Box 908
Lawton, Oklahoma 73502
(580) 595-9960 or 9618
(580) 595-9733 FAX

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January 31, 2014

Paul Enriquez
U.S. Customs and Border Protection
1300 Pennsylvania Avenue NW
Washington, DC 20229


Dear Mr. Enriquez:

This letter is in response to your request for information to assist the U.S. Customs and Border Protection (CBP) prepare a Draft Environmental Assessment (EA) for the proposed project referenced above.

**Project Description**

The CBP propose to construct, operate and maintain a U.S. Border Patrol (USBP) traffic checkpoint on a 34 acre site near Falfurrias, Brooks County, Texas. The CBP has identified one alternative site, an undeveloped tract approximately 34 acres in size, along U.S. Highway 281 south of Falfurrias.

You have requested information regarding state listed species, the presence of threatened and endangered species or other sensitive resources that could potentially occur on the proposed construction sites or be affected by the project. Texas Parks and Wildlife Department (TPWD) has reviewed the information provided and offers the following comments and recommendations.

**TPWD Review Methods**

As part of the review, TPWD searched the most recent version of the Texas Natural Diversity Database (TXNDD) of known records for species and rare resources within five miles of the general project area. TXNDD Element Occurrence (EOID) records found within the project location and extending five miles outside of that site provide a best estimate of the species and other rare resources that could potentially occur in the project’s study area. A lack of site-specific records should not be interpreted as presence/absence data, but instead that little information is available to date.

Based on the project as presented, the TPWD annotated county list of rare species for Brooks County, and presently known TXNDD records for the general project area, the following listed species could be impacted by proposed project activities if suitable habitat is present:
Federal and State Listed Endangered
Jaguarundi (*Herpailurus yaguarondi*)
Ocelot (*Leopardus pardalis*)

State Listed Threatened
Sheep frog (*Hylopachus vaiolosus*)
Texas Botteri’s Sparrow (*Aimophila botterii texana*)
White-tailed hawk (*Buteo albicaudatus*)
Southern yellow bat (*Lasius ega*)
Texas horned lizard (*Phrynosoma cornutum*)
* Texas indigo snake (*Drymarchon melanurus erebennus*)
* Texas scarlet snake (*Chelodina coccinea lini*)
Texas tortoise (*Gopherus berlandieri*)

Species of Concern
Sennett’s Hooded Oriole (*Icterus cucullatus sennetti*)
Western Burrowing Owl (*Athene cunicularia hypugaea*)
Keeled earless lizard (*Holbrookia propinqua*)
Amelia’s abronia (*Abronia ameliae*)
* Bailey’s billmoss (*Tillandsia baileyi*)

Special Features
* Seacoast bluestem-Gulf fynone paspalum Series

Review of the TXNDD indicates that occurrences of the species or special features shown above that are preceded by an asterisk (*) have been documented in and/or possibly within five miles of the project study area. Element Occurrence Records and a map of the project area are included to assist in project planning.

Please be aware that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Absence of information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presences, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys.

Please review the most current TPWD county list for Brooks County, as other rare species could be present depending upon habitat availability. These lists are available online at


**Federal Regulations**

*Endangered Species Act*

Federally-listed animal species and their habitat are protected from “take” on any property by the Endangered Species Act (ESA). Take of a federally-listed species can be allowed if it is “incidental” to an otherwise lawful activity and must be permitted in accordance with Section 7 or 10 of the ESA. Federally-listed plants are not protected from take except on lands under federal/state jurisdiction or for which a federal/state nexus (i.e., permits or funding) exists. Any take of a federally listed species or its habitat without the required take permit (or allowance) from the USFWS is a violation of the ESA.

In south Texas, federally-listed felids (i.e., jaguarundi, ocelots) require patches or corridors of dense brush. Some areas of Brooks County are characterized by patches of dense brush, including dense thornscrub and live oak-post oak woodlands with a dense understory of vegetation.

**Recommendation:** TPWD recommends designing the new checkpoint in such a way as to avoid and/or minimize clearing of dense brush.

*Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) implicitly prohibits intentional and unintentional take of migratory birds, including their nests and eggs, except as permitted by the USFWS. This protection applies to most native bird species, including ground nesting species. Although not documented in the TXNDD, many bird species which are not listed as threatened or endangered are protected by the MBTA and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area. Additional information regarding the MBTA is available from the USFWS-Southwest Regional Office (Region 2) at (505) 248-7882.

It is anticipated that vegetation clearing would be necessary to construct the proposed checkpoint facility and associated infrastructure. The proposed general project area consists of a high diversity of unique vegetation types that provide a variety of nesting habitats for different bird species. In addition to nesting sites, oak mottes, stands of native brush and grass may provide suitable cover, loafing and feeding habitat for birds.
The project area is also in the middle of the Central Migratory Flyway through which millions of birds pass during spring and fall migration. Numerous species may occur in the project area due to the range of habitats in the area that provides cover, feeding, nesting and loafing sites for many species of birds including grassland birds, Neotropical migrants, raptors and waterfowl.

**Recommendation:** To the greatest extent practical, TPWD recommends designing the project to avoid and/or minimize fragmenting habitat, widening existing fragments, or otherwise unnecessarily clearing mature woody vegetation. Also, TPWD recommends scheduling any necessary vegetation clearing or trampling (including grasses) to occur outside of the April 1-July 15 migratory bird nesting season in order to fully comply with the MBTA. Contractors should be made aware of the potential of encountering migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them.

If construction activities must be scheduled to occur during the nesting season, TPWD recommends that the vegetation to be impacted should be surveyed for active nests by a qualified biologist prior to clearing. If active nests are observed during surveys, TPWD recommends a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned.

**State Regulations**

*Parks and Wildlife Code*

State law prohibits any take (incidental or otherwise) of state-listed species. Laws and regulations pertaining to state-listed endangered or threatened animals are contained in Chapters 67 and 68 of the Texas Parks and Wildlife (TPW) Code; laws pertaining to endangered or threatened plants are contained in Chapter 88 of the TPW Code. There are penalties, which may include fines and/or jail time in addition to payment of restitution values, associated with take of state-listed species. Please see “Laws and Regulations Applicable to TPWD Review” at: http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/laws.phtml.

In addition to federally-listed species and the many non-listed bird species that are protected by the MBTA, the Coastal Sand Sheet, in which the propose project is located, provides high quality wildlife habitat that is suitable for supporting a number of wildlife species including state-listed species and species of concern. Specifically, the Texas tortoise, Texas indigo snake and Texas horned lizard (state-listed threatened), and keeled earless lizard (species of concern; SOC) may occur in or near the proposed project areas.
Habitats adjacent to the location of the proposed project along US 281 in Brooks County could include oak woodlands, shrublands, prairies and isolated wetlands all of which represent high quality habitat that provides food, browse, and cover for many species of wildlife, including state-listed species. The availability of vegetated cover composed of leguminous or other mast producing species could support many bird species as well as state-listed reptiles adapted to arid environments (e.g., Texas horned lizard) and prey species (e.g., lizards, mice) for raptors common in the area.

**Recommendation:** TPWD recommends that if encountered, wildlife including state-listed species, should be avoided and permitted to leave the project area on their own.

Texas tortoises could be encountered in the proposed project area. TPWD recommends that if encountered, Texas tortoises should be avoided and permitted to leave the project area on their own. Attempting to relocate them by picking them up can cause them to evacuate their bladders. Evacuation of their bladder, along with the stress of being moved, could cause the tortoises to become dehydrated and die. If tortoises must be relocated, it should be relocated as far from the proposed activity as possible, but within its 5 to 10 acre home range. After tortoises are removed from the project area, the immediate project area should be fenced off to exclude tortoises and other reptiles.

If tortoises or horn lizards are observed in the immediate project area, an exclusion fence should be constructed with metal flashing or drift fence material; regular silt fence material should not be used. The exclusion fence should be buried at least six-inches deep and be 24-inches high. Additional information regarding Texas tortoise best management practices is available on the TPWD website at: [http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml](http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml)

For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Office. For more information on Wildlife Permits please visit [http://www.tpwd.state.tx.us/business/permits/land/wildlife/research/](http://www.tpwd.state.tx.us/business/permits/land/wildlife/research/).

If during construction the project area is found to contain rare species, natural plant communities or special features, TPWD recommends that precautions be taken to avoid, minimize, and compensate for impacts to them.

Additional project planning tools and best management practices (BMPs) are available online at the TPWD website: [http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml](http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml)
Texas indigos snakes and Texas scarlet snakes are known to occur in Brooks County. Texas indigo snakes have a large home range for hunting due to their high metabolism. This range can also expand outside of their optimal habitat (i.e., riparian areas) particularly during drought as they search for prey. The Texas scarlet snake may occur in woodlands in loose, sandy soils.

**Recommendation:** Because snakes are generally perceived as a threat and killed when encountered during vegetation clearing or construction, TPWD recommends project plans include comments to inform contractors of the potential for the state-listed snakes to occur in the project area. Contractors should be advised to avoid impacts to snakes as long as the safety of the workers is not compromised. For the safety of workers and preservation of a natural resource, attempting to catch, relocate and/or kill snakes (both venomous and non-venomous) is also discouraged by TPWD. If encountered, snakes should be permitted to safely leave project areas on their own.

Regarding all wildlife encounters on the project site, TPWD encourages a *no kill* policy be implemented unless human safety is compromised.

TPWD looks forward to receiving the completed Draft EA for this project. Please contact me at (361) 825-3240 or russell.hooten@tpwd.texas.gov if you have any questions regarding our comments.

Sincerely,

[Signature]

Russell Hooten
Wildlife Habitat Assessment Program
Wildlife Division

/rh 8364

cc: Frank Reilly via email
## TXNDD Tracked Species in Project Area

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**General Description**

DIVERSE AREA WITH DENSE LIVE OAK MOTTES ALONG WITH SEACOAST BLUESTEM-TANGLEHEAD-CRINKLEAWN GRASSLAND AND SOME WETLAND INCLUSIONS

**Protection Comments**

<nul>

**Management Comments**

<nul>

**General Comments**

DESPITE GRAZING AND ROOT-PLLOWING OF SOME PARTS, THIS IS A VALUABLE NATURAL AREA
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**EO Data**

4 STANDS WERE SAMPLED WITH 20, 25X50 CM PLOTS FOR SPECIES FREQUENCY AND FOLIAGE COVER.

**General Description**

EXEMPLARY QUALITY, AESTHETIC DUNE AND SWALE VEGETATION COVERS PART OF THIS RANCH: SEACOAST BLUESTEM ON RIDGES, GULFDUNE PASPALUM IN SWALES, SPARTINA SPARTINAE IN DRAINAGES.

**Protection Comments**

<null>

**Management Comments**

PROTECT FROM OVERGRAZING

**General Comments**

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Code Key for Printouts from
Texas Parks and Wildlife Department
Texas Natural Diversity Database (TXNDD)

This information is for your assistance only; due to continuing data updates, vulnerability of private land to trespass and of species to disturbance or collection, please refer all requesters to our office to obtain the most current information available. Also, please note, identification of a species in a given area does not necessarily mean the species currently exists at the point or area indicated.

LEGAL STATUS AND CONSERVATION RANKS

**FEDERAL STATUS** (as determined by the US Fish and Wildlife Service)

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</tr>
<tr>
<td>DL</td>
<td>Delisted Endangered/Threatened</td>
</tr>
<tr>
<td>C</td>
<td>Candidate. USFWS has substantial information on biological vulnerability and threats to support proposing to list as threatened or endangered. Data are being gathered on habitat needs and/or critical habitat designations.</td>
</tr>
<tr>
<td>C*</td>
<td>C, but lacking known occurrences</td>
</tr>
<tr>
<td>C**</td>
<td>C, but lacking known occurrences, except in captivity/cultivation</td>
</tr>
<tr>
<td>XE</td>
<td>Essential Experimental Population</td>
</tr>
<tr>
<td>XN</td>
<td>Non-essential Experimental Population</td>
</tr>
<tr>
<td>Blank</td>
<td>Species is not federally listed</td>
</tr>
</tbody>
</table>

**TX PROTECTION** (as determined by the Texas Parks and Wildlife Department)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Listed Endangered</td>
</tr>
<tr>
<td>T</td>
<td>Listed Threatened</td>
</tr>
<tr>
<td>Blank</td>
<td>Species not state-listed</td>
</tr>
</tbody>
</table>

**GLOBAL RANK** (as determined by NatureServe)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Critically imperiled globally, extremely rare, typically 5 or fewer viable occurrences</td>
</tr>
<tr>
<td>G2</td>
<td>Imperiled globally, very rare, typically 6 to 20 viable occurrences</td>
</tr>
<tr>
<td>G3</td>
<td>Very rare and local throughout range or found locally in restricted range, typically 21 to 100 viable occurrences</td>
</tr>
<tr>
<td>G4</td>
<td>Apparently secure globally</td>
</tr>
<tr>
<td>G5</td>
<td>Demonstrably secure globally</td>
</tr>
<tr>
<td>GH</td>
<td>Of historical occurrence through its range</td>
</tr>
<tr>
<td>GU</td>
<td>Possibly in peril range-wide, but status uncertain</td>
</tr>
<tr>
<td>G#G#</td>
<td>Ranked within a range as status uncertain</td>
</tr>
<tr>
<td>GX</td>
<td>Apparently extinct throughout range</td>
</tr>
<tr>
<td>Q</td>
<td>Rank qualifier denoting taxonomic assignment is questionable</td>
</tr>
<tr>
<td>#?</td>
<td>Rank qualifier denoting uncertain rank</td>
</tr>
<tr>
<td>C</td>
<td>In captivity or cultivation only</td>
</tr>
<tr>
<td>G#T#</td>
<td>“G” refers to species rank; “T” refers to variety or subspecies rank</td>
</tr>
</tbody>
</table>

**STATE (SUBNATIONAL) RANK** (as determined by the Texas Parks and Wildlife Department)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Critically imperiled in state, extremely rare, vulnerable to extirpation, typically 5 or fewer viable occurrences</td>
</tr>
<tr>
<td>S2</td>
<td>Imperiled in state, very rare, vulnerable to extirpation, typically 6 to 20 viable occurrences</td>
</tr>
<tr>
<td>S3</td>
<td>Rare or uncommon in state, typically 21 to 100 viable occurrences</td>
</tr>
<tr>
<td>S4</td>
<td>Apparently secure in State</td>
</tr>
<tr>
<td>S5</td>
<td>Demonstrably secure in State</td>
</tr>
<tr>
<td>S#S#</td>
<td>Ranked within a range as status uncertain</td>
</tr>
<tr>
<td>SH</td>
<td>Of historical occurrence in state and may be rediscovered</td>
</tr>
<tr>
<td>SU</td>
<td>Unrankable – due to lack of information or substantially conflicting information</td>
</tr>
<tr>
<td>SX</td>
<td>Apparently extirpated from State</td>
</tr>
<tr>
<td>SNR</td>
<td>Unranked – State status not yet assessed</td>
</tr>
<tr>
<td>SNA</td>
<td>Not applicable – species id not a suitable target for conservation activities</td>
</tr>
<tr>
<td>?</td>
<td>Rank qualifier denoting uncertain rank in State</td>
</tr>
</tbody>
</table>

Revised 1 Apr 2008
**ELEMENT OCCURRENCE RECORD**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Occurrence</td>
<td>Spatial and tabular record of an area of land and/or water in which a species, natural community, or other significant feature of natural diversity is, or was, present and associated information; may be a single contiguous area or may be comprised of discrete patches or subpopulations</td>
</tr>
<tr>
<td>Record (EOR)</td>
<td></td>
</tr>
<tr>
<td>Occurrence #</td>
<td>Unique number assigned to each occurrence of each element when added to the NDD</td>
</tr>
<tr>
<td>Watershed Code</td>
<td>Eight digit numerical code determined by US Geological Survey (USGS)</td>
</tr>
<tr>
<td>Watershed</td>
<td>Name of watershed as determined by USGS</td>
</tr>
<tr>
<td>Quadrangle</td>
<td>Name of USGS topographical map</td>
</tr>
<tr>
<td>Directions</td>
<td>Directions to geographic location where occurrence was observed, as described by observer or in source</td>
</tr>
<tr>
<td>First/Last Observation</td>
<td>Date a particular occurrence was first/last observed; refers only to species occurrence as noted in source and does not imply the first/last date the species was present</td>
</tr>
<tr>
<td>Survey Date</td>
<td>If conducted, date of survey</td>
</tr>
<tr>
<td>EO Type</td>
<td>State rank qualifiers:</td>
</tr>
<tr>
<td>M</td>
<td>Migrant – species occurring regularly on migration at staging areas, or concentration along particular corridors; status refers to the transient population in the State</td>
</tr>
<tr>
<td>B</td>
<td>Qualifier indicating basic rank refers to the breeding population in State</td>
</tr>
<tr>
<td>N</td>
<td>Qualifier indicating basic rank refers to the non-breeding population in State</td>
</tr>
<tr>
<td>EO Rank</td>
<td>A: Excellent, B: Good, C: Marginal, D: Poor, E: Extant/Present, H: Historical/No Field Information, X: Destroyed/Extirpated, O: Obscure</td>
</tr>
<tr>
<td>EO Rank Date</td>
<td>Latest date EO rank was determined or revised</td>
</tr>
<tr>
<td>Observed Area</td>
<td>Acres, unless indicated otherwise</td>
</tr>
</tbody>
</table>

**COMMENTS**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>General physical description of area and habitat where occurrence is located, including associated species, soils, geology, and surrounding land use</td>
</tr>
<tr>
<td>Comments</td>
<td>Comments concerning the quality or condition of the element occurrence at time of survey</td>
</tr>
<tr>
<td>Protection Comments</td>
<td>Observer comments concerning legal protection of the occurrence</td>
</tr>
<tr>
<td>Management Comments</td>
<td>Observer comments concerning management recommendations appropriate for occurrence conservation</td>
</tr>
</tbody>
</table>

**DATA**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO Data</td>
<td>Biological data; may include number of individuals, vigor, flowering/fruiting data, nest success, behaviors observed, or unusual characteristic, etc.</td>
</tr>
</tbody>
</table>

**SITE**

**MANAGED AREA INFORMATION**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Area Name</td>
<td>Place name or (on EOR printout) name of area when the EO is located within or partially within an area identified for conservation, such as State or Federal lands, nature preserves, parks, etc.</td>
</tr>
<tr>
<td>Alias</td>
<td>Additional names the property is known by</td>
</tr>
<tr>
<td>Acres</td>
<td>Total acreage of property, including non-contiguous tracts</td>
</tr>
<tr>
<td>Manager</td>
<td>Contact name, address, and telephone number for area or nearest area land steward</td>
</tr>
</tbody>
</table>

Please use one of the following citations to credit the source for the printout information:

Texas Natural Diversity Database. [year of printouts]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts].

Texas Natural Diversity Database. [year of printouts]. Element occurrence printouts for [scientific name] *records # [occurrence number(s)]. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of printouts]. *Use of record #’s is optional.
Mr. Bill Gardiner  
King Ranch, Inc.  
Three Riverway, Suite 1600  
Houston, TX 77056

Subject: U.S. Customs and Border Protection Site Assessment for the Proposed U.S. Border Patrol Falfurrias Traffic Checkpoint

Dear Mr. Gardiner:

Please find enclosed copies of the cultural resources report, the biological resources report, and the Phase I Environmental Site Assessment that have been prepared for U.S. Customs and Border Protection (CBP) as part of planning for the proposed new U.S. Border Patrol Falfurrias traffic checkpoint on property owned by King Ranch, Inc. In accordance with the National Historic Preservation Act and the Endangered Species Act, respectively, CBP will be sending a copy of the cultural resources survey to the Texas State Historic Preservation Officer and a copy of the biological resources survey to the U.S. Fish and Wildlife Service. Copies of the reports and this notification are provided to King Ranch, Inc. pursuant to Item 2c of the Right of Entry for Preliminary Site Assessment signed September 11, 2013. If you have any concerns with the content of the reports or the proposed distribution, please let CBP know within 14 days of the date of this letter.

If you require additional information or have any questions, please contact Mr. John Petrilla at (949) 643-6385 or by email at john.petrilla@dhs.gov. Thank you.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 cultural resources report  
1 biological resources report  
1 Phase I ESA
Mailing List
Agency Coordination Letters for Draft Cultural Report
US Customs and Border Protection Border Patrol Checkpoint
Falfurrias, Texas

Federally Recognized Tribes

Comanche Nation
ATTN: Chairman Wallace Coffey
584 NW Bingo Road
Lawton, OK 73507
(580) 492 3240

Mescalero Apache Reservation
ATTN: President Dr. Carlton Naiche-Palmer
P.O. Box 227
Mescalero, NM 88340
(575) 464-4494 ext 233

Kiowa Tribe of Oklahoma
ATTN: Chairman Ronald “Dawes” Twohatchett
100 Kiowa Way
Carnegie, OK 73015
(580) 654-2300

Pawnee Nation of Oklahoma
ATTN: President Marshall Gover
881 Little Dee Drive
Pawnee, OK 74058
(918) 762-3621

Tonkawa Tribe of Oklahoma
ATTN: President Donald Patterson
1 Rush Buffalo Road
Tonkawa, OK. 74653
(580) 628 - 2561

Fort Sill Apache Tribe of Oklahoma
ATTN: Chairman Jeff Houser
43187 US Hwy 281
Apache, OK 73006
(580) 588-2298

White Mountain Apache Tribe
ATTN: Chairman Ronnie Lupe
201 E Walnut St
Whiteriver AZ, 85941
(928) 338-2500

Texas State Historic Preservation Officer (SHPO)

Mr. Mark Wolf
State Historic Preservation Officer
Texas Historical Commission
108 W. 16th Street
Austin, TX  78701
The Honorable Wallace Coffey  
Comanche Nation  
584 NW Bingo Road  
Lawton, OK 73507

Subject: Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Chairman Coffey:

U.S. Customs and Border Protection (CBP) proposes to expand the existing U.S. Border Patrol (USBP) Falfurrias Traffic Checkpoint (TCP) on U.S. Highway 281 (US 281) in Brooks County, Texas. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 “Protection of Historic Properties (Section 106),” this letter is being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this Undertaking.

Description of Undertaking

The current Falfurrias TCP is located south of Falfurrias, Texas, and north of Encino, Texas, along the northbound side of U.S. Highway 281 (US 281). The existing TCP, constructed in 1994, is incapable of handling the increases in traffic flow along US 281.

The proposed Undertaking would consist of widening the existing highway to eight lanes for primary inspection and eight lanes for secondary inspection. The operational improvements would include demolition of the existing TCP and construction of a two-bay vehicle lift inspection, secondary bus inspection, vehicle non-invasive inspection lane, and possible pre-enrolled access commercial traffic lanes. In addition, the main building and surrounding site would be improved to provide administrative and cell detention areas, short-stay K-9 facility, narcotic storage structure, general storage building(s), fuel island, vehicle impound lot, water storage tank for fire protection and potable water, and a new potable and fire water well and possible treatment facilities, on-site sewage disposal areas, and runoff detention ponds, as well as other minor improvements.

The existing 130-foot-high communication tower would be relocated to allow expansion of the other facilities. However, the tower would still be within the expanded TCP footprint. The height of the tower might be increased, but would be less than 200 feet tall. New lighting would be installed and would consist of light standards equipped with four luminaries each. Illumination within the work area would be directed down and toward the traffic lanes for inspection and safety purposes and would be expected to achieve 50 foot-candles. Backshields would be placed on the lights to reduce or eliminate light trespass into vegetated areas adjacent to the TCP. Power
for the lights would be provided by underground lines from existing, adjacent electrical power poles.

**Area of Potential Effects**

The Area of Potential Effect (APE) for the Undertaking has been determined to be the entire proposed new Falfurrias Traffic Checkpoint property, which measures 33.9 acres.

**Identification and Evaluation of Historic Properties**

CBP completed an intensive archaeological pedestrian survey supplemented with shovel test pit excavation and Oakfield core samples in support of the proposed new TCP. The surveys were conducted under Texas Antiquities Permit Number 6689. Two isolated finds were recorded during the survey. No archaeological sites were recorded as part of this survey. A portion of the proposed new Falfurrias Traffic Checkpoint would be located within the National Register of Historic Places (NRHP)-listed King Ranch Historic District. The portion of the NRHP historic district that overlaps with the footprint of the proposed new Falfurrias Checkpoint consists of undeveloped pasture land. In addition, other modern man-made features are currently present within or adjacent to the property including the current Falfurrias Traffic Checkpoint and the current alignment of U.S. 281. No buildings, structures, or designed landscape features that are 45 years old or older are within or adjacent to the footprint of the proposed new Falfurrias TCP.

**Determination of Effects on Historic Properties**

Pursuant to Section 800.4(d)(1), CBP has determined there would be No Adverse Effects on historic properties from the construction of the proposed new Falfurrias Traffic Checkpoint.

Please let us know if you have any concerns or would like to provide any additional information relative to the proposed Undertaking within 30 days of receipt of this letter. If you have any questions, please contact Mr. John Petrilla by phone at (949) 643-6385 or by email at john.petrilla@dhs.gov.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
Dear Sir or Madam,

Regarding your proposed projects, the Tonkawa Tribe of Indians of Oklahoma submits the following:

The Tonkawa Tribe has no specifically designated historical or cultural sites identified in the above listed project area. However if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tonkawa Tribe would certainly be interested in proper disposition thereof.

We appreciate notification by your office of the many projects on-going, and as always the Tonkawa Tribe is willing to work with your representatives in any manner to uphold the provisions of NAGPRA to the extent of our capability.

Respectfully,

[Signature]

Miranda “Nax’ce” Myer
NAGPRA Representative
Mr. Mark Wolfe  
State Historic Preservation Officer  
Texas Historical Commission  
108 W. 16th Street  
Austin, TX  78701  

Subject: Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol  
Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Mr. Wolfe:

U.S. Customs and Border Protection (CBP) proposes to expand the existing U.S. Border Patrol (USBP) Falfurrias Traffic Checkpoint (TCP) on U.S. Highway 281 (US 281) in Brooks County, Texas. Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 “Protection of Historic Properties (Section 106),” this letter is being transmitted to initiate consultation, identify historic properties, and to assess adverse effects of this Undertaking.

Description of Undertaking

The current Falfurrias TCP is located south of Falfurrias, Texas, and north of Encino, Texas, along the northbound side of U.S. Highway 281 (US 281). The existing TCP, constructed in 1994, is incapable of handling the increases in traffic flow along US 281.

The proposed Undertaking would consist of widening the existing highway to eight lanes for primary inspection and eight lanes for secondary inspection. The operational improvements would include demolition of the existing TCP and construction of a two-bay vehicle lift inspection, secondary bus inspection, vehicle non-invasive inspection lane, and possible pre-enrolled access commercial traffic lanes. In addition, the main building and surrounding site would be improved to provide administrative and cell detention areas, short-stay K-9 facility, narcotic storage structure, general storage building(s), fuel island, vehicle impound lot, water storage tank for fire protection and potable water, and a new potable and fire water well and possible treatment facilities, on-site sewage disposal areas, and runoff detention ponds, as well as other minor improvements.

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on the lights to reduce or eliminate light trespass into vegetated areas adjacent to the TCP. Power for the lights would be provided by underground lines from existing, adjacent electrical power poles.

**Area of Potential Effects**

The Area of Potential Effect (APE) for the Undertaking has been determined to be the entire proposed new Falfurrias Traffic Checkpoint property, which measures 33.9 acres.

**Identification and Evaluation of Historic Properties**

Enclosed are a completed *Request for SHPO Consultation Form* and the draft cultural resources report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. The report outlines the results of an intensive archaeological pedestrian survey supplemented with shovel test pit excavation and Oakfield core samples in support of the proposed new TCP. The surveys were conducted under Texas Antiquities Permit Number 6689. Two isolated finds were recorded during the survey. No archaeological sites were recorded as part of this survey. A portion of the proposed new Falfurrias Traffic Checkpoint would be located within the National Register of Historic Places (NRHP)-listed King Ranch Historic District. The portion of the NRHP historic district that overlaps with the footprint of the proposed new Falfurrias Checkpoint consists of undeveloped pasture land. In addition, other modern man-made features are currently present within or adjacent to the property including the current Falfurrias Traffic Checkpoint and the current alignment of U.S. 281. No buildings, structures, or designed landscape features that are 45 years old or older are within or adjacent to the footprint of the proposed new Falfurrias TCP.

**Determination of Effects on Historic Properties**

Pursuant to Section 800.4(d)(1), CBP has determined there would be No Adverse Effects on historic properties from the construction of the proposed new Falfurrias Traffic Checkpoint. CBP requests SHPO concurrence with this determination.

Pursuant to Section 800.2(c)(1)(i) and Section 800.2(c)(2), CBP is also making a good faith effort to identify and consult with Native American Tribes that may have an interest in the project. CBP has sent information to the following tribes:

- Comanche Nation
- Mescalero Apache Reservation
- Kiowa Tribe of Oklahoma
- Pawnee Nation of Oklahoma
- Tonkawa Tribe of Oklahoma
- Fort Sill Apache Tribe of Oklahoma
- White Mountain Apache Tribe
Mr. Mark Wolfe

If you require additional information or have any questions, please contact Mr. John Petrilla at (949) 643-6385 or by email at john.petrilla@dhs.gov.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures: 1 completed Request for SHPO Consultation Form
1 draft report
Mr. Adam Zerrenner  
U.S. Fish and Wildlife Service  
Austin Ecological Services Field Office  
Compass Bank Building  
10711 Burnet Rd. Ste 200  
Austin, TX 78758

Dear Mr. Zerrenner:

U.S. Customs and Border Protection (CBP) proposes to construct, operate, and maintain a new U.S. Border Patrol (USBP) traffic checkpoint (TCP) in USBP Falfurrias Station’s Area of Responsibility (AOR) in Brooks County, Texas (Figure 1). The proposed, new TCP would be located on the northbound side of U.S. Highway 281 (US 281) approximately 13 miles south of the City of Falfurrias, Texas (Photograph 1), replacing the existing TCP at the same location. The proposed TCP site is 34 acres and includes privately owned and Texas Department of Transportation (TxDOT) land (Photograph 2). The existing TCP, which encompasses approximately 2 acres of TxDOT land, would be completely demolished and replaced with the new TCP (Figures 2 and 3). The surrounding area is primarily undeveloped.

The proposed project would consist of widening the existing highway to eight lanes for primary inspection and eight lanes for secondary inspection. The operational improvements would include demolition of the existing TCP and construction of a two-bay vehicle lift inspection, secondary bus inspection, vehicle non-invasive inspection lane, and possible pre-enrolled access commercial traffic lanes. In addition, the new main building and surrounding site would provide administrative and cell detention areas, a short-stay K-9 facility, narcotic storage structure, general storage building(s), fuel island, vehicle impound lot, water storage tank for fire protection and potable water, and a new potable and fire water well and possible treatment facilities, on-site sewage disposal areas, and runoff detention ponds, as well as other minor improvements.

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A field reconnaissance survey of the project area was performed by Gulf South Research Corporation (GSRC) on October 22, 2013. The project area is located within the Tamaulipan Province and is characterized as being dry and low-lying, with level to gently rolling terrain. Portions of the project area are previously disturbed from the construction of the existing TCP, the installation of underground high-pressure gas pipelines, and the previous alignment of US 281.

The prevailing vegetation community within the undisturbed habitat at the proposed TCP site is characterized as live oak woods, at elevations ranging between approximately 140 and 150 feet above mean sea level (amsl). Common perennial vegetation observed within the undisturbed areas includes Texas live oak (*Quercus fusiformis*), honey mesquite (*Prosopis glandulosa*), lime prickly ash (*Zanthoxylum fagarum*), southern hackberry (*Celtis laevigata*), Mexican paloverde (*Parkinsonia aculeata*), Texas ebony (*Ebanopsis ehano*), white-thorn acacia (*Acacia constricta*), Texas lantana (*Lantana urticoides*), Lindheimer’s hoary pea (*Tephrosia lindheimeri*), and partridge pea (*Chamaecrista fasciculata*). Numerous annual and perennial grasses were also abundant, including slender panic grass (*Panicum capillarioides*), purple threeawn (*Aristida purpurea*), natal grass (*Melium repens*), little bluestem (*Schizachyrium scoparium*), and buffalo grass (*Pennisetum ciliare*). Two species of cactus, plains prickly pear (*Opuntia macrorhiza*) and Christmas cholla (*Opuntia leptocaulis*), were also observed during the field reconnaissance survey.

Wildlife species observed at the proposed TCP site during the October 2013 survey included white-tailed deer (*Odocoileus virginianus*), bobcat (*Lynx rufus*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), flat-headed snake (*Tantilla gracilis*), keeled earless lizard (*Holbrookia porpincta*), six-lined racerunner (*Aspidoscelis sexlineatus*), Texas indigo snake (*Drymarchon melanurus erebennus*), Texas spiny lizard (*Sceloporus olivaceus*), scissor-tailed flycatcher (*Tyrannus forficatus*), ruby-crowned kinglet (*Regulus calendula*), green jay (*Cyanocorax yncas*), Couch’s kingbird (*Tyrannus couchii*), eastern screech-owl (*Megascops asio*), European house sparrow (*Passer domesticus*), black-crested titmouse (*Baeolophus atricristatus*), turkey vulture (*Cathartes aura*), and black vulture (*Coragyps atratus*).
The U.S. Fish and Wildlife Service (USFWS) currently lists three species as endangered in Brooks County, Texas: northern aplomado falcon (*Falco femorialis speientrionalis*), ocelot (*Leopardus pardalis*), and jaguarundi (*Herpailurus yagouaroundi cacomitli*). No Federally listed threatened species or designated critical habitat exists within Brooks County. Of the three endangered species, only one, the northern aplomado falcon, has the potential to occur within the project area. However, habitat within the project area would provide only minimal foraging opportunities for the northern aplomado falcon. No northern aplomado falcons or raptor nests of any type were observed during the biological resources survey. The lands surrounding the project area do not contain dense thornscrub, the typical preferred habitat of ocelot in southern Texas, and the Gulf Coast jaguarundi is not known to occur north of the Lower Rio Grande Valley, Texas. Additionally, the project area is immediately adjacent to US 281, which is a large, four-lane, divided highway that parallels State Highway 77. The presence of ocelot and jaguarundi within the project area is unlikely due to the lack of suitable habitat and the highway traffic volumes.

The proposed construction, operation, and maintenance of the new Falfurrias TCP would have no effect on any Federally listed species or designated critical habitat. CBP requests you respond to or provide comments on our determinations at this time. We intend to provide your agency with a copy of the Draft Environmental Assessment for the project to solicit formal comments once the document is completed. Thank you for your assistance with our project planning efforts. If you have any questions, please contact John Petrilla at (949) 643-6385 or by email at john.petrilla@dhs.gov.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures
Figure 1. Vicinity Map
Figure 3. Proposed Traffic Checkpoint Footprint
Mailing List
Agency Coordination Letters for Draft EA Distribution
US Customs and Border Protection Border Patrol Checkpoint
Falfurrias, Texas

Libraries

City of Corpus Christi Central Library
805 Comanche Street
Corpus Christi, Texas 78401

Ed Rachal Memorial Library
203 South Calixto Mora Avenue
Falfurrias, Texas 78355

Federally Recognized Tribes

Comanche Nation
ATTN: Chairman Wallace Coffey
584 NW Bingo Road
Lawton, OK 73507
(580) 492 3240

Mescalero Apache Reservation
ATTN: President Dr. Carlton Naiche-Palmer
P.O. Box 227
Mescalero, NM 88340
(575) 464-4494 ext 233

Kiowa Tribe of Oklahoma
ATTN: Chairman Ronald “Dawes” Twohatchett
100 Kiowa Way
Carnegie, OK 73015
(580) 654-2300

Pawnee Nation of Oklahoma
ATTN: President Marshall Gover
881 Little Dee Drive
Pawnee, OK 74058
(918) 762-3621

Tonkawa Tribe of Oklahoma
ATTN: President Donald Patterson
1 Rush Buffalo Road
Tonkawa, OK. 74653
(580) 628 - 2561
Fort Sill Apache Tribe of Oklahoma
ATTN: Chairman Jeff Houser
43187 US Hwy 281
Apache, OK 73006
(580) 588-2298

White Mountain Apache Tribe
ATTN: Chairman Ronnie Lupe
201 E Walnut St
Whiteriver AZ, 85941
(928) 338-2500

Texas State Historic Preservation Officer (SHPO)

Mr. Mark Wolf
State Historic Preservation Officer
Texas Historical Commission
108 W. 16th Street
Austin, TX 78701

Federal Agencies

Federal Aviation Administration/Department of Transportation
ATTN: Mr. Michael O’Hara
Acting Regional Administrator
2601 Meacham Blvd
Fort Worth, TX 76173

U.S. Fish and Wildlife Service
Austin Ecological Services Field Office
ATTN: Adam Zerrenner
Compass Bank Building
10711 Burnet Rd. Ste 200
Austin, TX 78758

EPA, Region VI
ATTN: Rhonda Smith, Chief
Office of Planning and Coordination Mail Code 6EN-XP
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 665-2760
State and Local Agencies

Texas Parks and Wildlife Department
ATTN: Kathy Boydston
4200 Smith School Road
Austin, TX 78744
(512) 389-4828

Mr. Toribio Garza, Jr. P.E.
District Engineer – Pharr District
Texas Department of Transportation
600 W US Expressway 83
Pharr, Texas 78577-1231
(956) 702-6100

Mr. Jaime A. Garza
Regional Director
Texas Commission on Environmental Quality
Region 15
1804 W. Jefferson Ave.
Harlingen, TX 78550-5247
(956) 425-6010

Raul M. Ramirez
County Judge, Brooks County
P.O. Box 515
Falfurrias, TX 78355
(361) 325-5604

Mayor Anna Garcia
City of Falfurrias
205 East Allen Street
Falfurrias, TX 78355
(361) 325-2420
Ed Rachal Memorial Library  
203 South Calixto Mora Avenue  
Falfurrias, Texas 78355

Subject: U.S. Customs and Border Protection Environmental Assessment for the Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Sir/Madam:

Enclosed please find a copy of the draft Environmental Assessment (EA) and proposed Finding of No Significant Impact (FONSI) for the construction, operation, and maintenance of a new U.S. Border Patrol (USBP) traffic checkpoint near Falfurrias, Brooks County, Texas. Please make this draft EA available to the public for a review period of 30 days beginning on April 25, 2014. Include a copy of this letter with the draft EA for public review.

Any questions or comments concerning this draft EA and FONSI may be sent by email to Falfurrias.Checkpoint.EA@cbp.dhs.gov, or mailed to:

Mr. John Petrilla  
U.S. Customs and Border Protection  
BPFT1 PMO  
24000 Avila Road, Suite 5020  
Laguna Niguel, CA 92677

Comments on the draft EA and draft FONSI are due no later than May 24, 2014. Thank you very much for your cooperation.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure Program Management Office

Enclosure
City of Corpus Christi Central Library  
805 Comanche Street  
Corpus Christi, Texas 78401  

Subject: U.S. Customs and Border Protection Environmental Assessment for the Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Sir/Madam:

Enclosed please find a copy of the draft Environmental Assessment (EA) and proposed Finding of No Significant Impact (FONSI) for the construction, operation, and maintenance of a new U.S. Border Patrol (USBP) traffic checkpoint near Falfurrias, Brooks County, Texas. Please make this draft EA available to the public for a review period of 30 days beginning on April 25, 2014. Include a copy of this letter with the draft EA for public review.

Any questions or comments concerning this draft EA and FONSI may be sent by email to Falfurrias.Checkpoint.EA@cbp.dhs.gov, or mailed to:

Mr. John Petrilla  
U.S. Customs and Border Protection  
BPFTI PMO  
24000 Avila Road, Suite 5020  
Laguna Niguel, CA 92677

Comments on the draft EA and draft FONSI are due no later than May 24, 2014. Thank you very much for your cooperation.

Sincerely,

[Signature]

Paul Enríquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosure
THIS PAGE LEFT INTENTIONALLY BLANK
Mr. Michael O’Hara
Acting Regional Administrator
FAA/DOT
2601 Meacham Blvd
Fort Worth, TX 76173

Subject: U.S. Customs and Border Protection Environmental Assessment for the Proposed Construction, Operation, and Maintenance of the U.S. Border Patrol Falfurrias Traffic Checkpoint, Rio Grande Valley Sector, Texas

Dear Mr. O’Hara,

U.S. Customs and Border Protection (CBP) is pleased to forward the draft Environmental Assessment (EA) and proposed Finding of No Significant Impact (FONSI) for the construction, operation, and maintenance of a new U.S. Border Patrol (USBP) traffic checkpoint (TCP) near Falfurrias, Brooks County, Texas. The capacity of the current TCP, which was built in 1994, has become inadequate due to the significant increase in traffic flow. The proposed new TCP would replace the existing inadequate one on U.S. Highway 281 (U.S. 281) with a TCP meeting current and projected USBP requirements.

The proposed TCP is located on the northbound side of U.S. 281 approximately 13 miles south of the City of Falfurrias, Texas. The Preferred Alternative is an approximately 34-acre parcel that includes Texas Department of Transportation (TXDOT) DOT land and land privately owned by King Ranch and the Rachal Foundation. The existing TCP, which encompasses approximately 2 acres of TXDOT land, will be completely demolished and replaced with the new TCP. The surrounding area is rural and undeveloped.

CBP invites your participation in this public process and requests your review of the enclosed draft EA. The 30-day public comment period begins on April 25, 2014, and comments must be received by May 24, 2014, to be considered for incorporation into the final EA. When submitting your comments, please include your name and address and identify comments as intended for the USBP Falfurrias Traffic Checkpoint draft EA. Submit your comments on the draft EA and draft FONSI by email to Falfurrias.Checkpoint.EA@cbp.dhs.gov or by mail to:

Mr. John Petrilla
U.S. Customs and Border Protection
BPFTI PMO
24000 Avila Road, Suite 5020
Laguna Niguel, CA 92677
Mr. Michael O’Hara  
Page 2  

If you have any questions or concerns please feel free to contact Mr. John Petrilla by phone at (949) 643-6385 (Office) or (949) 278-0353 (Mobile), or via email at john.petrilla@dhs.gov. Thank you for your cooperation and assistance.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosure
NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED CONSTRUCTION, MAINTENANCE, AND OPERATION OF
THE U.S. BORDER PATROL FALFURRIAS STATION TRAFFIC CHECKPOINT
U.S. BORDER PATROL, RIO GRANDE VALLEY SECTOR, TEXAS

The public is hereby notified of the availability of the draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared by U.S. Customs and Border Protection (CBP) for the proposed construction, operation, and maintenance of a U.S. Border Patrol traffic checkpoint (TCP) near Falfurrias, Texas. The proposed TCP is located at the existing TCP site on the northbound side of US 281 approximately 13 miles south of the City of Falfurrias, Texas. The existing TCP will be completely demolished and replaced with the new TCP. The draft EA and FONSI is available for review at the Ed Rachal Memorial Library, located at 203 South Calixto Mora Avenue in Falfurrias, Texas, and the Corpus Christi Central Library at 805 Comanche Street in Corpus Christi, Texas, on April 25, 2014. It is also available for review and downloading at the following URL address: http://www.cbp.gov/about/environmental-cultural-stewardship/nepa-documents/docs-review.

Comments concerning the draft EA and FONSI will be accepted for a period of 30 days (April 25, 2014 through May 24, 2014) and should be sent to Mr. John Petrilla, U.S. Customs and Border Protection, Border Patrol Facilities and Tactical Infrastructure, 24000 Avila Road, Suite 5020, Laguna Niguel, CA 92677; by facsimile at (949) 360-2985; or by email to Falfurrias.Checkpoint.EA@cbp.dhs.gov.
Please refer to the attached tribal consultation letter in regards to the above proposed action.

Thank you...

Mark T. Altaha - THPO
White Mountain Apache Tribe
Historic Preservation Office
Fort Apache, Arizona
To: John Pertrilla, U.S. Customs Border and Protection BPFTI PMO
Date: May 01, 2014
Re: U.S. CBP Proposed construction of the Falfurrias Traffic Checkpoint, Rio Grande, TX.

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, April 21, 2014. In regards to this, please attend to the following checked items below.

► **There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.**

**N/A** - The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The tribe's **Cultural Heritage Resource Director Mr. Ramon Riley** may be contacted at (928) 338-3033 for further information should this become necessary.

► Please refer to the attached additional notes in regards to the proposed project:

We have received and reviewed information regarding the above US CBP proposed construction, operations, and maintenance of the US Border Patrol Falfurrias Traffic Checkpoint, Rio Grande, Valley Sector, Texas, and we have determine the proposed project will **not to have an impact** on the White Mountain Apache tribe’s (WMAT) historic properties and/or traditional cultural properties. Regardless, any/all ground disturbing activities should be monitored if there are reasons to believe that there are human remains and/or funerary objects are present, and if such remains and/or objects are encountered they shall be treated with respect and handled accordingly until such remains are repatriated to the affiliated tribe.

Thank you. We look forward to continued collaborations in the protection and preservation of place of cultural and historical significance.

Sincerely,

**Mark T. Altaha**

White Mountain Apache Tribe
Historic Preservation Office
Mr. Mark Wolfe
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
1511 Colorado Street
Austin, Texas 78701

Subject: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Mr. Wolfe:

Please find enclosed the final public and restricted versions of the cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas for your records. The restricted version of the report contains archaeological site location data, while the site location data have been removed from the public version. The survey was conducted for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. No archeological sites were recorded during the investigations. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, one unbound copy of the restricted report with archaeological site location data is included for the Texas Historical Commission’s records. In addition, electronic copies of the restricted and public versions of the report are also provided on a DVD in tagged Portable Document Format (PDF). The Abstracts in Texas Contract Archeology Summary Form for the report was completed online on May 8, 2014. Bound copies of the public version of the report are also being sent to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you require any additional electronic or hard copies please do not hesitate to contact me by phone at 949-643-6365 or by email at paul.enriquez@cbp.dhs.gov.
Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures: 1 unbound copy of the final report
1 DVD containing an electronic version of the final reports in tagged PDF format
Ms. Peggy Rudd  
Director and Librarian  
Texas State Library and Archives Commission, State Publications Depository Program  
P.O. Box 12927  
Austin, TX 78711-2927

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Ms. Rudd:

Please find enclosed the final cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 bound final public report without site location information
Mr. Darrell Creel  
Director  
Texas Archeological Research Laboratory at the University of Texas  
10100 Burnet Road  
J.J. Pickle Research Campus, Bldg. 5, Rm. 4  
Austin, TX 78758-4445  

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)  

Dear Mr. Creel:  

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.  

Sincerely,  

[Signature] 

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office  

Enclosures: 1 bound final public report without site location information
Mr. Jon Lohse  
Director  
Center for Archeological Studies at Texas State University  
Department of Anthropology Rm. 120  
Texas State University-San Marcos  
601 University Drive  
San Marcos, TX 78666  

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)  

Dear Mr. Lohse:  

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrccorp.com.  

Sincerely,  

[Signature]  

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office  

Enclosures: 1 bound final public report without site location information
Mr. Steve Tomka  
Director  
Center for Archeological Research at the University of Texas, San Antonio  
One UTSA Circle  
San Antonio, TX 78249  

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)  

Dear Mr. Tomka:  

Please find enclosed the final cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.  

Sincerely,  

[Signature]
Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office  

Enclosures: 1 bound final public report without site location information
Ms. Shirley Dickerson  
Director  
Ralph W. Steen Library, Stephen F. Austin State University  
1936 North Street  
Nacogdoches, TX 75962

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Ms. Dickerson:

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 bound final public report without site location information
MAY 21 2014

Mr. Donald Dyal
Dean of Libraries
Texas Tech University Library
18th and Boston
P.O. Box 40002
Lubbock, TX 79409-0002

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Mr. Dyal:

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrccorp.com.

Sincerely,

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures: 1 bound final public report without site location information
Ms. Laura Sare  
Government Information Librarian  
University Libraries, Texas A&M University  
5000 TAMU  
College Station, TX 77843-5000

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Ms. Sare:

Please find enclosed the final cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrccorp.com.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 bound final public report without site location information
Mr. Robert Stakes
Library Director
University of Texas at El Paso Library
500 West University Avenue
El Paso, TX 79968-0583

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Mr. Stakes:

Please find enclosed the final cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrccorp.com.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures: 1 bound final public report without site location information
Ms. Roberta Schaafsma  
Director and J.S. Bridwell Endowed Librarian  
Southern Methodist University Library  
PO Box 750135  
Dallas, TX 75275-0476

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Ms. Schaafsma:

Please find enclosed the final cultural resources management report titled Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.

Sincerely,

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 bound final public report without site location information
MAY 21, 2014

Dr. Don E. Carleton
Executive Director
Dolph Briscoe Center for American History
2313 Red River, SRH 2.101
Austin, TX 78705

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Dr. Carleton:

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.

Sincerely,

[Signature]

Paul Enriquez
Environmental Branch Chief
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

Enclosures: 1 bound final public report without site location information
Ms. Shawna Kennedy-Witthar  
Director of Information and Library Resources  
Cornette Library, West Texas A&M University  
P.O. Box 60748  
Canyon, TX 79016-0001

Re: Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas (Texas Antiquities Permit Number 6689)

Dear Ms. Kennedy-Witthar:

Please find enclosed the final cultural resources management report titled *Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County, Texas*. This report does not include archaeological site location information and is for the public. The report outlines the results of a cultural resources survey, supplemented with shovel testing, of an 80-acre parcel near Falfurrias, Brooks County, Texas. The survey was conducted by Gulf South Research Corporation (GSRC) for the U.S. Army Corps of Engineers, Fort Worth District, under Contract Number W912BV-10-D-2030 and under Texas Antiquities Permit number 6689. In accordance with Texas Administrative Code, Title 13, Part 2, Chapter 26, this public version of the report without site location data is being distributed to the Texas State Library and Archives Commission, State Publications Depository Program, and 10 other university-based libraries and archaeological research institutions around the State of Texas. If you have any questions about the reports or need any additional copies or information please contact Mr. John Lindemuth, Principal Investigator, GSRC, by phone at (225) 757-8088 or by email at johnl@gsrcorp.com.

Sincerely,

[Signature]

Paul Enriquez  
Environmental Branch Chief  
Border Patrol Facilities and Tactical Infrastructure  
Program Management Office

Enclosures: 1 bound final public report without site location information
Dear Dr. Lindemuth:

We appreciate receiving a copy of Cultural Resources Investigations for the Construction, Operation, and Maintenance of the U.S. Customs and Border Protection Falfurrias Traffic Checkpoint, Brooks County Texas. Gulf South Research Corporation (May 2014) for the TARL Library. If you have a chance, please let Paul Enriquez (of the Border Patrol Facilities and Tactical Infrastructure, Program Management Office) know that we are grateful to obtain this report.

Sincerely,

Jean

Jean L. Hughes
TexSite and Atlas Coordinator
Texas Archeological Research Laboratory
The University of Texas at Austin
1 University Station R7500
Austin, TX 78712-0714

512-475-8162
j.l.hughes@mail.utexas.edu
http://www.utexas.edu/research/tarl/
http://www.texasbeyondhistory.net/
<table>
<thead>
<tr>
<th>Woody Perennial &amp; Large Monocots</th>
<th>Mammals</th>
<th>Birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckley yuca</td>
<td>Yucca constricta</td>
<td>Lynx rufus</td>
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<tr>
<td>Christmas cholla</td>
<td>Opuntia lepticaulis</td>
<td>Vulpes vulpes</td>
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<td>Honey mesquite</td>
<td>Prosopis glandulosa</td>
<td>Buteo jamaicensis</td>
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<td>Lime prickly ash</td>
<td>Zanthoxylum fagara</td>
<td>Accipiter cooperi</td>
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<td>Mexican paloverde</td>
<td>Parkinsonia aculeata</td>
<td>Tympanuchus cupido</td>
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<td>Partridge pea</td>
<td>Chamaecrista fasciculata</td>
<td>Strix varia</td>
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<td>Opuntia macrorhiza</td>
<td>Falco sparverius</td>
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<td>Salt cedar</td>
<td>Tamarix aphylla</td>
<td>Sturnus vulgaris</td>
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<td>Southern hackberry</td>
<td>Celtis laevigata</td>
<td>Turdus migratorius</td>
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<td>Sweet-scent</td>
<td>Pluchea odorata</td>
<td>Passer domesticus</td>
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<td>Ebanopsis ebano</td>
<td>Ficedula erythrina</td>
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<td>Texas lantana</td>
<td>Lantana arborescens</td>
<td>Accipiter cooperi</td>
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<td>Texas live oak</td>
<td>Quercus fusiformis</td>
<td>Accipiter cooperi</td>
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<td>Acacia constricta</td>
<td>Phasianus colchicus</td>
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<td>Herbs, Forbs and Grasses</td>
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<td>Alamo vine</td>
<td>Tillandsia recurvata</td>
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<td>Finger grass</td>
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<td>Schizachyrium scoparium</td>
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<td>Mala mujer</td>
<td>Cnidoscolus texanus</td>
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<td>Helianthus agrophyllus</td>
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<td>Slender day flower</td>
<td>Commelina erecta</td>
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<td>Slender panic grass</td>
<td>Panicum capillarioides</td>
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<td>Texas indian mallow</td>
<td>Abutilon fruticosum</td>
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<tr>
<td>Texas sunflower</td>
<td>Helianthus praecox</td>
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<td>Species Observed During the Falfurrias Checkpoint Biological Surveys</td>
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<td>American goldfinch</td>
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<td>Baeolophus atricristatus</td>
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<td>Black vulture</td>
<td>Coragyps atratus</td>
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<tr>
<td>Cooper's hawk</td>
<td>Accipiter cooperi</td>
<td>Cathartes aura</td>
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<td>Couch's kingbird</td>
<td>Buteo jamaicensis</td>
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<td>Crested caracara</td>
<td>Caracara cheriway</td>
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<td>Eastern phoebe</td>
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<td>Eastern screech-owl</td>
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<td>Eurasian collared-dove</td>
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<td>European house sparrow</td>
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<td>Great blue heron</td>
<td>Ardea herodias</td>
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<tr>
<td>Green jay</td>
<td>Cyanocorax yncas</td>
<td>Cathartes aura</td>
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<td>House wren</td>
<td>Trengtmeyer aedon</td>
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<td>Mourning dove</td>
<td>Zenaida macroura</td>
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<td>Northern cardinal</td>
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<td>Arremmonops rufirigatus</td>
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<td>Ruby-crowned kinglet</td>
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<td>Turkey vulture</td>
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<td>Cathartes aura</td>
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</tbody>
</table>

Reptiles

Flat-headed snake | Tantilla gracilis
Keeled earless lizard | Holbrookia porphyra
Six-lined race runner | Aspidoscelis sexlineatus
Texas horned lizard | Phrynosoma cornutum
Texas indigo snake | Drymarchon melanurus erebennus
Texas spiny lizard | Sceloporus olivaceus

Lepidopterans

American snout | Libytheana carinenta
Bordered patch | Chlosyne lacina
Ceraunus blue | Hemiarus ceranaus
Cloudless sulphur | Phoebis sennae
Common mistura | Mestra amymone
Eufala skipper | Leroidea enfala
Giant swallowtail | Papilio cresphontes
Goatweed leafwing | Anaea andria
Hackberry emperor | Asterocampa celtis
Little yellow | Eurema lisa
Long-tailed skipper | Urbanus proteus
Mexican yellow | Eurema mexicana
Queen | Danaus gilippus
Sickle-winged skipper | Eantis tenerum
Southern dogface | Colias cesonia
Variegated frillitary | Euptoieta claudia
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## Assumptions for Combustion Emissions

<table>
<thead>
<tr>
<th>Type of Construction Equipment</th>
<th>Num. of Units</th>
<th>HP Rated</th>
<th>Hrs/day</th>
<th>Days/yr</th>
<th>Total hp-hrs</th>
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<tbody>
<tr>
<td>Water Truck</td>
<td>1</td>
<td>300</td>
<td>8</td>
<td>180</td>
<td>432,000</td>
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<tr>
<td>Diesel Road Compactors</td>
<td>1</td>
<td>100</td>
<td>8</td>
<td>30</td>
<td>24,000</td>
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<tr>
<td>Diesel Dump Truck</td>
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<td>8</td>
<td>120</td>
<td>288,000</td>
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<tr>
<td>Diesel Excavator</td>
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<td>300</td>
<td>8</td>
<td>30</td>
<td>72,000</td>
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<td>175</td>
<td>8</td>
<td>30</td>
<td>42,000</td>
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<tr>
<td>Diesel Bore/Drill Rigs</td>
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<td>300</td>
<td>8</td>
<td>30</td>
<td>72,000</td>
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<tr>
<td>Diesel Cement &amp; Mortar Mixers</td>
<td>1</td>
<td>300</td>
<td>8</td>
<td>120</td>
<td>288,000</td>
</tr>
<tr>
<td>Diesel Excavator</td>
<td>1</td>
<td>300</td>
<td>8</td>
<td>30</td>
<td>72,000</td>
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<tr>
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<td>30</td>
<td>72,000</td>
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<tr>
<td>Diesel Front-End Loaders</td>
<td>1</td>
<td>300</td>
<td>8</td>
<td>180</td>
<td>432,000</td>
</tr>
<tr>
<td>Diesel Forklifts</td>
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<td>100</td>
<td>8</td>
<td>180</td>
<td>288,000</td>
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<td>8</td>
<td>180</td>
<td>115,200</td>
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### Emission Factors

<table>
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<tr>
<th>Type of Construction Equipment</th>
<th>VOC g/hp-hr</th>
<th>CO g/hp-hr</th>
<th>NOx g/hp-hr</th>
<th>PM-10 g/hp-hr</th>
<th>PM-2.5 g/hp-hr</th>
<th>SO2 g/hp-hr</th>
<th>CO2 g/hp-hr</th>
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</thead>
<tbody>
<tr>
<td>Water Truck</td>
<td>0.440</td>
<td>2.070</td>
<td>5.490</td>
<td>0.410</td>
<td>0.400</td>
<td>0.740</td>
<td>536,000</td>
</tr>
<tr>
<td>Diesel Road Compactors</td>
<td>0.370</td>
<td>1.480</td>
<td>4.900</td>
<td>0.340</td>
<td>0.330</td>
<td>0.740</td>
<td>536,200</td>
</tr>
<tr>
<td>Diesel Dump Truck</td>
<td>0.440</td>
<td>2.070</td>
<td>5.490</td>
<td>0.410</td>
<td>0.400</td>
<td>0.740</td>
<td>536,000</td>
</tr>
<tr>
<td>Diesel Excavator</td>
<td>0.340</td>
<td>1.300</td>
<td>4.600</td>
<td>0.320</td>
<td>0.310</td>
<td>0.740</td>
<td>536,300</td>
</tr>
<tr>
<td>Diesel Hole Trenchers</td>
<td>0.510</td>
<td>2.440</td>
<td>5.810</td>
<td>0.460</td>
<td>0.440</td>
<td>0.740</td>
<td>535,800</td>
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<tr>
<td>Diesel Bore/Drill Rigs</td>
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<td>2.290</td>
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<td>0.490</td>
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<tr>
<td>Diesel Graders</td>
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<td>4.730</td>
<td>0.330</td>
<td>0.320</td>
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<td>1.330</td>
<td>0.950</td>
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<tr>
<td>Diesel Bulldozers</td>
<td>0.360</td>
<td>1.380</td>
<td>4.760</td>
<td>0.330</td>
<td>0.320</td>
<td>0.740</td>
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<td>1.550</td>
<td>5.000</td>
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<td>0.710</td>
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</table>
1. Emission factors (EF) were generated using USEPA’s preferred model for nonroad sources, the NONROAD2008 model. Emissions were modeled for the 2007 calendar year. The VOC EFs include exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2008 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2008 model is based on the population in U.S. for the 2007 calendar year.

<table>
<thead>
<tr>
<th>Type of Construction Equipment</th>
<th>VOC tons/yr</th>
<th>CO tons/yr</th>
<th>NOx tons/yr</th>
<th>PM-10 tons/yr</th>
<th>PM-2.5 tons/yr</th>
<th>SO2 tons/yr</th>
<th>CO2 tons/yr</th>
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<tr>
<td>Water Truck</td>
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<td>0.039</td>
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<td>0.009</td>
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<td>0.025</td>
<td>0.025</td>
<td>0.059</td>
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<td>0.061</td>
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<td><strong>1.659</strong></td>
<td><strong>1.613</strong></td>
<td><strong>2.267</strong></td>
<td><strong>1644.063</strong></td>
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</tbody>
</table>

Conversion factors

| Grams to tons | 1.102E-06 |

CALCULATION SHEET-COMBUSTION EMISSIONS-CONSTRUCTION
## MOVES 2010a Model

<table>
<thead>
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<th>Source</th>
<th>Fuel type</th>
<th>Number of vehicles</th>
<th>Miles traveled per day</th>
<th>Days of travel per year</th>
<th>Miles traveled per year</th>
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<td>Passenger cars</td>
<td>Gasoline</td>
<td>20</td>
<td>40</td>
<td>240</td>
<td>192,000</td>
</tr>
<tr>
<td>Passenger truck</td>
<td>Gasoline</td>
<td>20</td>
<td>40</td>
<td>240</td>
<td>192,000</td>
</tr>
<tr>
<td>Light commercial truck</td>
<td>Diesel</td>
<td>2</td>
<td>40</td>
<td>240</td>
<td>19,200</td>
</tr>
<tr>
<td>Short-haul truck</td>
<td>Diesel</td>
<td>4</td>
<td>120</td>
<td>240</td>
<td>115,200</td>
</tr>
<tr>
<td>Long-haul truck</td>
<td>Diesel</td>
<td>1</td>
<td>80</td>
<td>240</td>
<td>19,200</td>
</tr>
</tbody>
</table>

### Emission Factors (MOVES 2010a Emission Rates)

<table>
<thead>
<tr>
<th>Source</th>
<th>VOC (g/mile)</th>
<th>CO (g/mile)</th>
<th>NOx (g/mile)</th>
<th>PM-10 (g/mile)</th>
<th>PM-2.5 (g/mile)</th>
<th>SO2 (g/mile)</th>
<th>CO2 and CO2 Equivalents (g/mile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger cars</td>
<td>8.497</td>
<td>2.892</td>
<td>0.576</td>
<td>0.019</td>
<td>0.018</td>
<td>0.005</td>
<td>320</td>
</tr>
<tr>
<td>Passenger truck</td>
<td>3.645</td>
<td>5.449</td>
<td>1.168</td>
<td>0.027</td>
<td>0.025</td>
<td>0.007</td>
<td>439</td>
</tr>
<tr>
<td>Light commercial truck</td>
<td>4.460</td>
<td>2.158</td>
<td>2.986</td>
<td>0.164</td>
<td>0.190</td>
<td>0.005</td>
<td>609</td>
</tr>
<tr>
<td>Short-haul truck</td>
<td>2.438</td>
<td>2.273</td>
<td>6.095</td>
<td>0.270</td>
<td>0.313</td>
<td>0.007</td>
<td>929</td>
</tr>
<tr>
<td>Long-haul truck</td>
<td>2.519</td>
<td>3.610</td>
<td>14.776</td>
<td>0.625</td>
<td>0.726</td>
<td>0.016</td>
<td>2,020</td>
</tr>
</tbody>
</table>

### Total Emission for On-Road Construction Activities (tons/year)

<table>
<thead>
<tr>
<th>Source</th>
<th>VOC</th>
<th>CO</th>
<th>NOx</th>
<th>PM-10</th>
<th>PM-2.5</th>
<th>SO2</th>
<th>CO2 and CO2 Equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger cars</td>
<td>1.798</td>
<td>0.612</td>
<td>0.122</td>
<td>0.004</td>
<td>0.004</td>
<td>0.001</td>
<td>68</td>
</tr>
<tr>
<td>Passenger truck</td>
<td>0.771</td>
<td>1.153</td>
<td>0.247</td>
<td>0.006</td>
<td>0.005</td>
<td>0.002</td>
<td>93</td>
</tr>
<tr>
<td>Light commercial truck</td>
<td>0.094</td>
<td>0.046</td>
<td>0.063</td>
<td>0.003</td>
<td>0.004</td>
<td>0.000</td>
<td>13</td>
</tr>
<tr>
<td>Short-haul truck</td>
<td>0.310</td>
<td>0.289</td>
<td>0.774</td>
<td>0.034</td>
<td>0.040</td>
<td>0.001</td>
<td>118</td>
</tr>
<tr>
<td>Long-haul truck</td>
<td>0.053</td>
<td>0.076</td>
<td>0.313</td>
<td>0.013</td>
<td>0.015</td>
<td>0.000</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.026</strong></td>
<td><strong>2.175</strong></td>
<td><strong>1.519</strong></td>
<td><strong>0.061</strong></td>
<td><strong>0.068</strong></td>
<td><strong>0.004</strong></td>
<td><strong>334</strong></td>
</tr>
</tbody>
</table>

Key:
- Short-haul trucks category includes trucks such as dump trucks and cement trucks.
- Long-haul trucks category includes trucks such as semi-trailers (18-wheelers).

1. Emission factors were generated by the USEPA preferred model MOVES2010a. MOVES simulates daily motor vehicle operations and produces emission rates. MOVES emission rates include sources from engine combustion, tire wear, brake wear, evaporative fuel permeation, vapor venting and leaking (running and parking), and crankcase loss. Emission rates are daily averages for each of the criteria pollutants. The averages are from a combination of vehicle operations such as stop and go, highway travel, acceleration at on-ramps, parking, start-up, extended idle, etc.
### Construction Fugitive Dust Emission Factors

<table>
<thead>
<tr>
<th>Construction Activities</th>
<th>Emission Factor</th>
<th>Units</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Construction Activities</td>
<td>0.19</td>
<td>ton PM-10/acre-month</td>
<td>MRI 1996; EPA 2001; EPA 2006</td>
</tr>
<tr>
<td>New Road Construction</td>
<td>0.42</td>
<td>ton PM-10/acre-month</td>
<td>MRI 1996; EPA 2001; EPA 2006</td>
</tr>
</tbody>
</table>

### PM-2.5 Emissions

<table>
<thead>
<tr>
<th>PM-2.5 Multiplier</th>
<th>0.10</th>
<th>(10% of PM-10 emissions assumed to be PM-2.5)</th>
<th>EPA 2001; EPA 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Efficiency</td>
<td>0.50</td>
<td>(assume 50% control efficiency for PM-10 and PM-2.5 emissions)</td>
<td>EPA 2001; EPA 2006</td>
</tr>
</tbody>
</table>

### Project Assumptions

<table>
<thead>
<tr>
<th>Construction Area (0.19 ton PM-10/acre-month)</th>
<th>Conversion Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Soil Disturbance in Project</td>
<td>6 months</td>
</tr>
<tr>
<td>Length</td>
<td>0 miles</td>
</tr>
<tr>
<td>Length (converted)</td>
<td>0 feet</td>
</tr>
<tr>
<td>Width</td>
<td>0 feet</td>
</tr>
<tr>
<td>Area</td>
<td>30.00 acres</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staging Areas</th>
<th>Conversion Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Construction Project</td>
<td>6 months</td>
</tr>
<tr>
<td>Length</td>
<td>miles</td>
</tr>
<tr>
<td>Length (converted)</td>
<td>feet</td>
</tr>
<tr>
<td>Width</td>
<td>feet</td>
</tr>
<tr>
<td>Area</td>
<td>2.00 acres</td>
</tr>
</tbody>
</table>

### Project Emissions (tons/year)

<table>
<thead>
<tr>
<th></th>
<th>PM-10 uncontrolled</th>
<th>PM-10 controlled</th>
<th>PM-2.5 uncontrolled</th>
<th>PM-2.5 controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Area (0.19 ton PM-10/acre-month)</td>
<td>34.20</td>
<td>17.10</td>
<td>3.42</td>
<td>1.71</td>
</tr>
<tr>
<td>Staging Areas</td>
<td>0.38</td>
<td>0.19</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Total</td>
<td>34.58</td>
<td>17.29</td>
<td>3.46</td>
<td>1.73</td>
</tr>
</tbody>
</table>

### References:

Assumptions for Fugitive Emissions

General Construction Activities Emission Factor

0.19 ton PM-10/acre-month  
Source: MRI 1996; EPA 2001; EPA 2006  
The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM-10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM-10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions from Construction Operations, calculated the 0.19 ton PM-10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM-10/acre-month) and 75% of the average emission factor (0.11 ton PM-10/acre-month).

The 0.19 ton PM-10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006). The 0.19 ton PM-10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM-10 and PM-2.5 in PM nonattainment areas.

New Road Construction Emission Factor

0.42 ton PM-10/acre-month  
Source: MRI 1996; EPA 2001; EPA 2006  
The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM-10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM-10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM-2.5 Multiplier

0.10  
PM-2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM-10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM-10 and PM-2.5

0.50  
The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM-10 and PM-2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:
### Summary of Emissions (tons/year)

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>VOC</th>
<th>CO</th>
<th>NOx</th>
<th>PM-10</th>
<th>PM-2.5</th>
<th>SO₂</th>
<th>CO₂</th>
<th>CO₂ Equivalents</th>
<th>Total CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion Emissions</td>
<td>2.10</td>
<td>8.47</td>
<td>17.56</td>
<td>1.66</td>
<td>1.61</td>
<td>2.27</td>
<td>1644.06</td>
<td>326</td>
<td>1,970</td>
</tr>
<tr>
<td>Construction Site-Fugitive PM-10</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>17.29</td>
<td>1.73</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Construction Workers Commuter &amp; Trucking</td>
<td>3.03</td>
<td>2.18</td>
<td>1.52</td>
<td>0.06</td>
<td>0.07</td>
<td>0.00</td>
<td>NA</td>
<td>NA</td>
<td>334</td>
</tr>
<tr>
<td><strong>Total Emissions—CONSTRUCTION</strong></td>
<td><strong>5.13</strong></td>
<td><strong>10.65</strong></td>
<td><strong>19.08</strong></td>
<td><strong>19.01</strong></td>
<td><strong>3.41</strong></td>
<td><strong>2.27</strong></td>
<td><strong>1644</strong></td>
<td><strong>660</strong></td>
<td><strong>2,304</strong></td>
</tr>
<tr>
<td><em>De minimis</em> Threshold (1)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>NA</td>
<td>NA</td>
<td>25,000</td>
</tr>
</tbody>
</table>

1. Note that Brooks County is in attainment for all NAAQS (USEPA 2013b).

### Carbon Equivalents

<table>
<thead>
<tr>
<th>Carbon Equivalents</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assume that N₂O is 5 percent of total NOx</td>
<td>311</td>
</tr>
<tr>
<td>Methane or VOCs</td>
<td>25</td>
</tr>
</tbody>
</table>