Draft

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED OBP SANTA TERESA STATION AESTHETIC FENCE OFFICE OF BORDER PATROL, EL PASO SECTOR SANTA TERESA, NEW MEXICO

U.S. Department of Homeland Security
U.S. Customs & Border Protection
Office of Border Patrol
Washington, D.C.

August 2007

DRAFT FINDING OF NO SIGNIFICANT IMPACT
For the Proposed OBP Santa Teresa Station Aesthetic Fence
Office of Border Patrol, El Paso Sector
Santa Teresa, New Mexico

PROJECT HISTORY: Office of Border Patrol (OBP) is a law enforcement entity of United States (U.S.) Customs and Border Protection (CBP), a component of the U.S. Department of Homeland Security (DHS). OBP's priority mission is to prevent the entry of terrorists and terrorist weapons and to enforce the laws that protect the U.S. homeland 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 (IA) and illegal entry into the U.S. along the U.S.-Mexico border in southern New Mexico has been a problem. Consequently, OBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when OBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as fencing and roads, are a critical element in the current enforcement strategy. Developing trends, such as the recognition of environmental preservation concerns and the increase of criminal trans-boundary activities (including trafficking in people, drugs, and terrorism efforts), continue to pose a border enforcement challenge and support the need for tactical infrastructure along the international border.

Joint Task Force-Six (JTF-6, now Joint Task Force North [JTF-N]) completed an Environmental Assessment (EA) in 2004 that addressed the installation of approximately 30 miles of Permanent Vehicle Barriers (PVBs) and some improvements to the border road on both sides of the Santa Teresa Port-of-Entry (POE). Construction of these PVBs has been intermittent, based on funding and availability of military units. Currently, approximately 2.2 miles of PVB have been installed approximately 15 miles west of the Santa Teresa POE.

Additionally, CBP and OBP prepared a Programmatic EA for Tactical Infrastructure within the El Paso Sector, New Mexico Stations in 2006, which identified tactical infrastructure that was proposed for construction during the next 10 years along the New Mexico-Mexico border. Since exact locations were not known at the time of the release of the Final Programmatic EA, CBP/OBP committed to conducting site-specific National Environmental Policy Act (NEPA) documents tiered from the Programmatic EA once locations and types of infrastructure projects were identified and funded.

However, changes to the tactical infrastructure in the Santa Teresa area are necessary to satisfy OBP needs and to comply with the Federal mandates of the Secure Fence Act of 2006 (SFA), which requires the construction of fence along the U.S.-Mexico border. Consequently, this draft EA and draft Finding of No Significant Impact (FONSI) were prepared to address the impacts of the new proposed actions.

PROJECT LOCATION: The proposed project area is located along the U.S.-Mexico border in the vicinity of the Santa Teresa POE, in Doña Ana County, New Mexico, and is situated east of the Village of Columbus, New Mexico and west of the metropolitan area of El Paso, Texas. The project corridor is within the Roosevelt Reservation and extends approximately 30 miles, and includes 6 miles to the east and 24 miles to the west of the Santa Teresa POE.

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For the Proposed OBP Santa Teresa Station Aesthetic Fence
Office of Border Patrol, El Paso Sector
Santa Teresa, New Mexico

PURPOSE AND NEED: The purpose of the proposed fence is to help CBP agents and officers gain effective control of our nation's borders. CBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fence is a critical element of border security. In alignment with Federal mandates, including the provisions of the SFA, OBP has identified this area of the border as a location where fence would contribute significantly to our priority homeland security mission.

ALTERNATIVES: Three alternatives carried forward for analysis in this EA are: 1) the No Action Alternative, 2) the Proposed Action Alternative, and 3) the Full Build-out Alternative.

No Action Alternative: Under the No Action Alternative, no construction of the aesthetic fence would occur. Existing PVBs as outlined and identified in the JTF-6 2004 EA could still be implemented, as planned by JTF-N, as funding, support requests, and military units become available.

Proposed Action Alternative: The Proposed Action Alternative would install approximately 6.8-miles of aesthetic fence starting 1.11 miles west of the Santa Teresa Port of Entry (POE), and extending east of the POE along the U.S.-Mexico Border, for 5.7 miles to the west end of Sunland Park, New Mexico. The aesthetic fence would be installed approximately 3 feet north of the border, within the Roosevelt Reservation. The final fence design would be developed by the design/build contractor. However, at a minimum, it must be 15 feet high, capable of withstanding vandalism, hinder climbing abilities, and be aesthetically pleasing. Currently, it is anticipated that the construction of approximately 6.8 miles of aesthetic fence would take less than 1 year and would be scheduled to start in October of 2007. Selection of this alternative would not preclude JTF-N from constructing PVBs, as outlined and identified in the JTF-6 2004 EA.

Full Build-Out Alternative: The Full Build-out Alternative would replace approximately 30 miles of existing or proposed PVBs with aesthetic fence. The fence would be constructed approximately 6 miles to the east of the Santa Teresa POE and 24 miles to the west of the POE, and would remain wholly within the Roosevelt Reservation. The final design of the fence would be developed by the design/build contractor, but would need to satisfy similar design criteria as outlined in the Proposed Action. Fence installed in the washes/arroyos would be designed and constructed in a manner that ensures water flow during excessive rain events would not be impeded or ponded. Currently, it is anticipated that the Full Build-out Action Alternative would take approximately 3 years to complete the construction of 30 miles of aesthetic fence.

ENVIRONMENTAL CONSEQUENCES: The Proposed Action Alternative would permanently impact approximately 8 acres of soils, native vegetation and wildlife habitats would occur. All of the proposed infrastructure and construction activities would occur within the Roosevelt Reservation. The project corridor is heavily disturbed due to past and on-going human activities within the Roosevelt Reservation, which has been specifically designated for border control actions.

Temporary impacts to air quality, noise, and water quality and supply would occur; however, ambient conditions of these resources would return shortly after completion of the proposed fence construction. Visual aesthetics would be impacted in the short term, but would be insignificant, while long term impacts would be minor. Potential impacts to cultural resources would occur but avoidance and mitigation measures would be implemented to minimize the impact to the sites. There would be no impacts to land use and hazardous materials in the proposed project corridor.

The potential exists for shifts in illegal pedestrian traffic to adversely impact resources outside of the project corridor; however, these impacts are not quantifiable at this time because it is unknown if, when, or where this shift in traffic may occur. However, because the primary border fence would act as a force multiplier, OBP would be able to deploy additional agents to those areas that lack pedestrian barriers in an effort to minimize any indirect adverse impacts.

No significant adverse effects to the natural or human environment, as defined in 40 Code of Federal Regulations (CFR) Section 1508.27 of the Council on Environmental Quality's Regulations for Implementing the NEPA Act, are expected upon implementation of the Proposed Action Alternative.

ENVIRONMENTAL DESIGN MEASURES: Environmental design measures are presented for each resource category that could be affected. Many of these measures have been incorporated as standard operating procedures by the OBP on past projects. It is OBP policy to mitigate adverse impacts through the sequence of avoidance, minimization, and compensation. These environmental design measures will be incorporated into the current Project Management Plan to be carried forward.

It should be noted that if any of the alternatives for this project are implemented, the following measures will be employed:

General Construction Activities: Best Management Practices (BMPs) will be implemented as standard operating procedures during all construction activities, and would include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted industry guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it will be unlikely for a major spill to occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*) will be used to absorb and contain the spill. Furthermore, any petroleum liquids (*e.g.*, fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 will be included as part of the Spill Prevention, Control, and

Countermeasures Plan (SPCCP). A 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.

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

Soils: Erosion control techniques, such as the use of straw bales (weed free straw), aggregate materials, wetting compounds and revegetation with native plant species, where possible, will be incorporated as part of the design of the Proposed Action Alternative. In addition, other erosion control measures, as required and promulgated through the Storm Water Pollution Prevention Plan (SWPPP), will be implemented before and after construction activities.

Cultural Resources: The proposed action would potentially impact sites determined eligible and potentially eligible for listing on the National Register of Historic Places. Due to this, consultation will be required with the New Mexico State Historic Preservation Officer and the appropriate Tribal Historic Preservation Officer. Through the use of avoidance and mitigation, impacts to cultural resources in the project corridor would be minimized. One eligible site is unavoidable and mitigation measures will be performed to minimize impacts to the resource. If any additional cultural material is discovered during the construction efforts, then all activities will halt until a qualified archeologist can be brought in to assess the cultural remains.

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. Effective March 10, 2003, in accordance with regulations of the U.S. Environmental Protection Agency Phase II of the National Pollution Discharge Elimination System (NPDES) stormwater program, a SWPPP will be required for stormwater runoff from construction activities greater than 1 acre and less than 5 acres. Therefore, a SWPPP will be prepared and the Notice of Intent submitted prior to the start of any construction. Equipment required for the construction activities will not be staged or stored within 100 feet of the any washes to prevent any contamination from accidental petroleum, oils, or lubricant spills that could occur.

Air Quality: Mitigation measures will be incorporated to insure that particulate matter less than 10 microns (PM-10) emission levels do not rise above the minimum threshold of 100 tons per year as required per 40 CFR 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter that will be created during construction activities. Standard construction practices such as routine watering of the construction site will be used to control fugitive dust during the construction phases of the proposed project. Additionally, all

construction equipment and vehicles will be required to be kept in good operating condition to minimize exhaust emissions.

Noise: During the construction phase, short term noise impacts are anticipated. All Occupational Safety and Health Administration requirements will be followed. On-site activities will be restricted to daylight hours, with the exception of concrete pours and emergency situations. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

FINDING: Based upon the results of the environmental assessment and the environmental design measures to be incorporated as part of the Proposed Action Alternative, it has been concluded that the Proposed Action Alternative will not have a significant effect on the environment. Therefore, no further environmental impact analysis is warranted.

_____ _____

Eugene Schied
Assistant Commissioner, Office of Finance
U.S. Customs and Border Protection

Date

_____ _____

Garth Rogers
Office of Border Patrol
El Paso Sector Headquarters

Date

DRAFT

ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED OBP SANTA TERESA STATION AESTHETIC FENCE
OFFICE OF BORDER PATROL, EL PASO SECTOR
SANTA TERESA, NEW MEXICO

August 2007

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EXECUTIVE SUMMARY

PROPOSED ACTION:

United States (U.S.) Customs and Border Protection (CBP) Office of Border Patrol (OBP) El Paso Sector proposes the construction of approximately 6.8 miles of aesthetic fence starting 1.11 miles west of the Santa Teresa Port of Entry (POE), and extending east of the POE along the U.S.-Mexico Border, for 5.7 miles to the west end of Sunland Park. The aesthetic fence would be installed approximately 3 feet north of the International border, within the Roosevelt Reservation. The final fence design will be developed by the design/build contractor. However, at a minimum, it must be 15 feet high, capable of withstanding vandalism, not easily climbed, and be aesthetically pleasing.

PURPOSE AND NEED FOR THE PROPOSED ACTION:

The purpose of the proposed fence is to help CBP agents and officers gain effective control of our nation's borders. CBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fence is a critical element of border security. In alignment with Federal mandates, including the provisions of the Secure Fence Act of 2006 (SFA), OBP has identified this area of the border as a location where fence would contribute significantly to our priority homeland security mission.

The need for the proposed action is to comply with the SFA, provide a safer work environment for OBP agents, deter illegal aliens (IAs) by constructing an impediment to northward movement, and enhance the response time of OBP agents.

ALTERNATIVES CONSIDERED:

There are three alternatives under consideration: the No Action Alternative, the Proposed Action Alternative (described above), and the Full Build-out Alternative.

Under the No Action Alternative, no pedestrian fence would be constructed. However, the Permanent Vehicle Barriers (PVBs) that have been constructed or are planned for construction by Joint Task Force-North (JTF-N, formerly JTF-6) would remain as addressed in the JTF-6 2004 Environmental Assessment (EA). The No Action Alternative will serve as a baseline against which the impacts of the Proposed Action Alternative will be evaluated.

Under the Full Build-out Alternative, construction of approximately 30 miles of pedestrian fence would replace any proposed and existing PVBs between Border Monument markers 3 and 11 along the U.S.-Mexico Border. The total length of fence under this alternative would be approximately 30 miles, which is the same footprint as proposed by JTF-6 (2004) for PVB construction under the No Action Alternative.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION:	Implementation of the Proposed Action Alternative would cause approximately 8 acres of permanent impacts to soils and native vegetation and wildlife habitats. There would be no impacts to land use or hazardous materials. Short term insignificant impacts and long term minor impacts to visual aesthetics would occur. Minimal, temporary impacts to water resources would occur, and temporary and minor impacts to air quality and noise would also occur from implementation of the Proposed Action.
CONCLUSIONS:	Based on the findings of this analysis and the assumption that all environmental design measures recommended herein are implemented, no significant adverse impacts would occur from the Proposed Action Alternative, and no additional National Environmental Policy Act documentation is warranted.

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SECTION 1.0
INTRODUCTION

1.0 INTRODUCTION

United States (U.S.) Customs and Border Protection (CBP), Office of Border Patrol (OBP), El Paso Sector prepared this Environmental Assessment (EA) that addresses the potential effects, beneficial and adverse, from the construction of aesthetic fence near Santa Teresa, Doña Ana County, New Mexico (Figure 1-1). OBP El Paso Sector, Santa Teresa Station proposes to construct approximately 6.8 miles of aesthetic fence along the International border near the Santa Teresa, New Mexico Port-of-Entry (POE).

Joint Task Force-Six (JTF-6, now Joint Task Force North [JTF-N]) completed an EA in 2004 that addressed the installation of approximately 30 miles of Permanent Vehicle Barriers (PVBs) and some improvements to the border road on both sides of the Santa Teresa POE. Construction of these PVBs has been intermittent, based on funding and availability of military units. Currently, approximately 2.2 miles of PVBs have been installed approximately 15 miles to the west of the Santa Teresa POE.

In addition, CBP and OBP prepared a Programmatic EA for Tactical Infrastructure (TI) within the El Paso Sector, New Mexico Stations in 2006, which identified TI that was proposed for construction during the next 10 years along the New Mexico-Mexico border. Since exact locations were not known at the time of the release of the Final Programmatic EA, CBP/OBP committed to preparing site-specific National Environmental Policy Act (NEPA) documents tiered from the Programmatic EA once locations and types of infrastructure projects were identified and funded.

Furthermore, because of the Secure Fence Act of 2006 (SFA) and shifts in illegal alien (IA) traffic, there is a need to construct aesthetic fence in lieu of the PVBs planned by JTF-N. Construction equipment would use the same roads and staging areas that are currently being used by OBP contractors and military units to construct the PVBs and border roads. No additional improvements (*e.g.*, all-weather surfacing) would be implemented as part of the proposed action. An EA is needed to address the impacts of the proposed aesthetic fence construction, because it is a different design from the PVBs and results in different types and magnitudes of impacts.

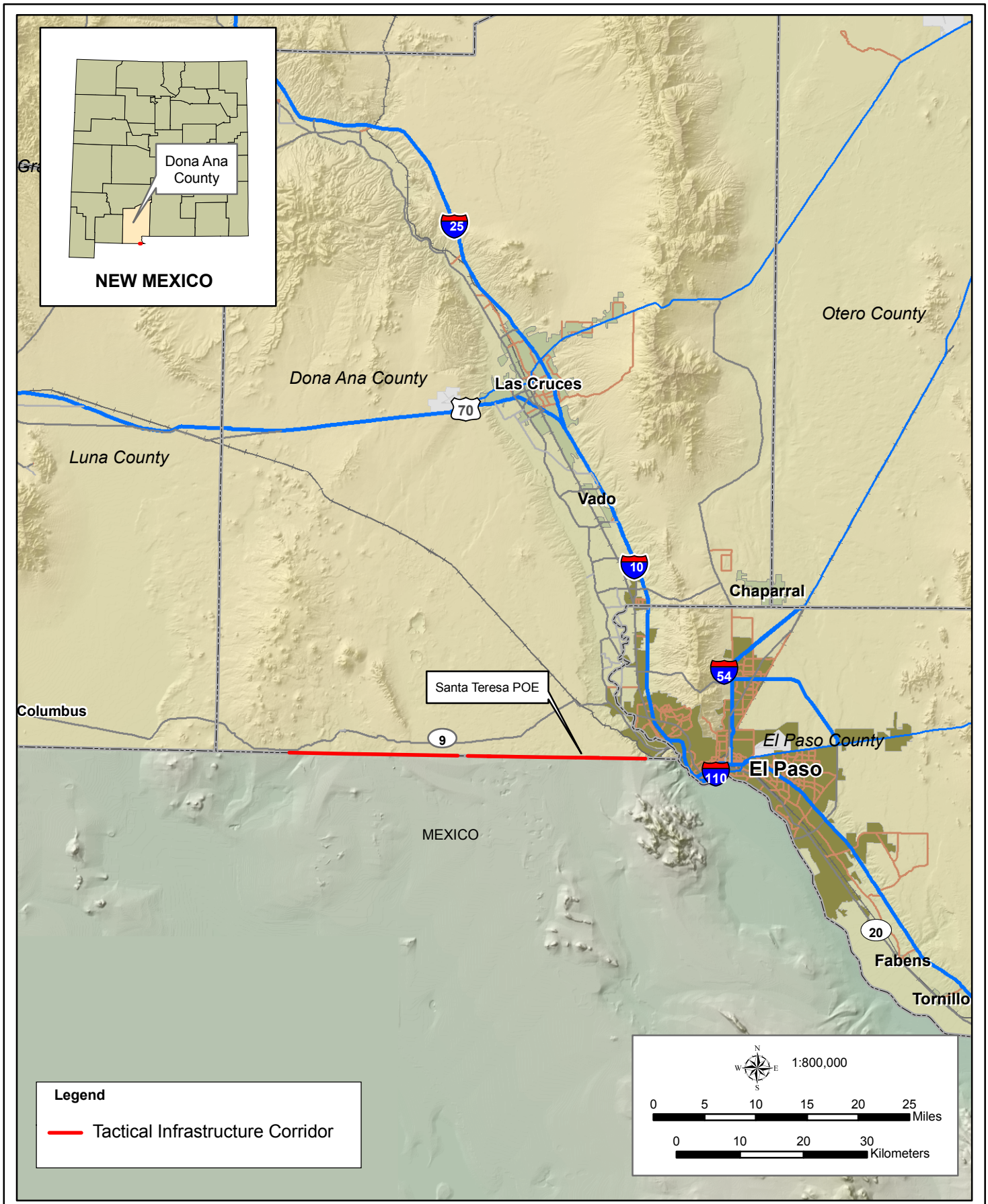


Figure 1-1: Project Vicinity Map

GSRC

Date: May 2007

This EA will be tiered from the *Programmatic Environmental Assessment for Proposed Tactical Infrastructure, Office of Border Patrol, El Paso Sector, New Mexico Stations* completed in October of 2006, and hereafter referred to as the OBP Programmatic EA (CBP 2006), and the 2001 *Supplemental Programmatic Environmental Impact Statement for the Continuation of Immigration and Naturalization Service and Joint Task Force Six Activities along the Southwestern Border* (INS 2001). This EA will also incorporate information by reference, to the extent practicable, data from the *Final Environmental Assessment for Proposed Vehicle Barriers near Santa Teresa, Doña Ana County, New Mexico* completed in April 2004 by JTF-6, and hereafter referred to as the JTF-6 EA (JTF-6 2004a).

This EA was prepared in accordance with the NEPA Act of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 of the U.S. Code of Federal Regulations [CFR], Parts 1500-1508), and the U.S. Department of Homeland Security (DHS) Management Directive 5100.1, which is the Environmental Planning Program Directive that outlines CBP's procedures for the implementation of NEPA.

1.1 CBP BACKGROUND

In 1924, Congress created the U.S. Border Patrol (USBP) to serve as the law enforcement entity of the Immigration and Naturalization Service (INS), which it did until November 25, 2002. With the passage of the Homeland Security Act of 2002 (Public Law [P.L.] 107-296), Congress transferred all INS responsibilities to the newly created DHS. USBP was renamed OBP, and positioned within the CBP of the DHS on March 1, 2003.

The mission of CBP is to prevent terrorists and terrorist weapons from entering the U.S. (CBP 2004). This mission involves maintaining a diverse, multi-layered approach, which includes improving security along the International borders and at POEs. As part of this mission, CBP works to implement its *National Border Patrol Strategy* (CBP 2004), identify and seize terrorists' assets and funding sources, and enhance the support infrastructure to further develop targets and analyses.

The implied tasks of this mission are to strengthen U.S. borders, and to prevent the entry of terrorists and terrorist weapons, smugglers, IAs, narcotics, and other contraband. The goal of OBP is operational control of our Nation's borders. This will be achieved by appropriate levels of

personnel, intelligence, technology, and infrastructure resources necessary to increase the level of operational effectiveness until the likelihood of apprehension is sufficient as an effective deterrent and conveys an absolute certainty of detection and apprehension.

1.2 REGULATORY AUTHORITY

The primary sources of authority granted to OBP agents are the Immigration and Nationality Act (INA), found in Title 8 of the United States Code (USC), and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, primarily those found in Title 8 of the CFR (Section 287), judicial decisions, and administrative decisions of the Board of Immigration Appeals. In addition, the Illegal Immigration Reform and Immigrant Responsibility Act and the subsequent Homeland Security Act of 2002 mandate DHS to acquire and improve equipment and technology along the border, hire and train new agents for the border region, and develop effective border enforcement strategies.

The statutory provisions related to enforcement authority are found in Sections 287(a), 287(b), 287(c), and 287(e) [8 USC § 1357(a,b,c, and e)]; Section 235(a) [8 USC § 1225]; Sections 274(b) and 274(c) [8 USC § 1324(b,c)]; Section 274(a) [8 USC § 1324(a)]; and Section 274(c) [8 USC § 1324(c)] of the INA. Other statutory sources of authority are Title 18 of the USC, which has several provisions that specifically relate to enforcement of immigration and nationality laws; Title 19 [19 USC § 1401(i)], relating to U.S. Customs Service cross-designation of immigration officers; and Title 21 [21 USC § 878], relating to Drug Enforcement Agency cross-designation of immigration officers.

1.3 PROJECT AREA LOCATION

The proposed project area is located along the U.S.-Mexico border in the vicinity of the Santa Teresa POE, in Doña Ana County, New Mexico (see Figure 1-1), and is situated east of the Village of Columbus, New Mexico and west of the metropolitan area of El Paso, Texas. The project corridor extends for approximately 30 miles, and includes 6 miles to the east and 24 miles to the west of the Santa Teresa POE, within the Roosevelt Reservation.

1.4 PURPOSE AND NEED

The purpose of the proposed fence is to help U.S. Customs and Border Protection (CBP) agents and officers gain effective control of our nation's borders. CBP is developing and deploying the most effective mix of proven technology, infrastructure, and increased personnel. In some locations, fence is a critical element of border security. In alignment with Federal mandates, including the provisions of the Secure Fence Act of 2006 (SFA), OBP has identified this area of the border as a location where fence would contribute significantly to our priority homeland security mission. The need for the proposed action is to comply with the SFA, provide a safer work environment for OBP agents, deter IAs by constructing an impediment to northward movement into the U.S., and enhance the response time of OBP agents.

1.5 APPLICABLE ENVIRONMENTAL STATUTES AND REGULATIONS

This EA was prepared by CBP and OBP in accordance with the NEPA of 1969; Endangered Species Act (ESA) of 1973, as amended; the National Historic Preservation Act (NHPA) of 1966, as amended; the Archaeological and Historical Preservation Act of 1974, as amended; Executive Order (EO) No. 11593, "Protection and Enhancement of the Cultural Environment"; EO No. 11988, "Floodplain Management"; EO No. 11990, "Protection of Wetlands"; EO No. 13007, "Indian Sacred Sites"; EO No. 13045, "Protection of Children from Environmental Health Risks"; and EO No. 12898 "Federal Actions to Address Environmental Justice." Table 1-1 summarizes the applicable environmental statutes and regulations that guided the development of this EA.

1.6 REPORT ORGANIZATION

This EA is divided into 10 sections, including this section. Section 2 describes the alternatives that would satisfy the stated purpose and need. Current conditions within the project area and vicinity are presented in Section 3. The potential direct and indirect impacts of the alternatives are discussed in Section 4, while cumulative effects are discussed in Section 5. Section 6 presents environmental design measures and plans to reduce adverse impacts to the human or natural environment. Section 7 discusses measures that have been utilized throughout the preparation of this EA in obtaining input from the general public and resource agencies. References used while preparing the EA are listed in Section 8. Acronyms used throughout this EA are provided in Section 9. Section 10 presents the list of preparers. Appendix A provides a list of protected and

noxious species. Appendix B includes the results of air quality calculations and Appendix C contains correspondence with Federal and state agencies, tribes, and interested parties.

Table 1-1. Applicable Environmental Statutes and Regulations

Federal Statutes
Archaeological and Historical Preservation Act of 1974, as amended
Clean Air Act of 1955, as amended
Clean Water Act of 1977, as amended
Endangered Species Act of 1973, as amended
Migratory Bird Treaty Act of 1972
National Historic Preservation Act of 1966, as amended
National Environmental Policy Act of 1969, as amended
Watershed Protection and Flood Prevention Act of 1954
Wild and Scenic Rivers Act of 1968, as amended
Farmland Protection Policy Act of 1980
Native American Graves Protection and Repatriation Act of 1990
Executive Orders, Memorandums, etc.
Floodplain Management (EO 11988) of 1977
Protection of Wetlands (EO 11990) of 1977
Federal Actions to Address Environmental Justice to Minority Populations and Low-Income Populations (EO 12898) of 1994
Protection of Children from Environmental Health Risks (EO 13045) of 1997
Protection of Migratory Birds & Game Mammals (EO 11629) of 2001
Indian Sacred Sites (EO 13007) of 1996
Consultation and Coordination with Indian Tribal Governments (EO 13175) of 2000
Government-to-Government Relations with Native American Tribal Governments (Presidential Memorandum) of 1994

SECTION 2.0
DESCRIPTION OF ALTERNATIVES

2.0 DESCRIPTION OF ALTERNATIVES

Three alternatives carried forward for analysis in this EA are: 1) the No Action Alternative, 2) the Proposed Action Alternative, and 3) the Full Build-out Alternative. Figure 2-1 illustrates typical areas of impact in the proposed 60-foot Roosevelt Reservation corridor for the alternatives carried forward for analysis. These three alternatives are briefly discussed in the following subsections.

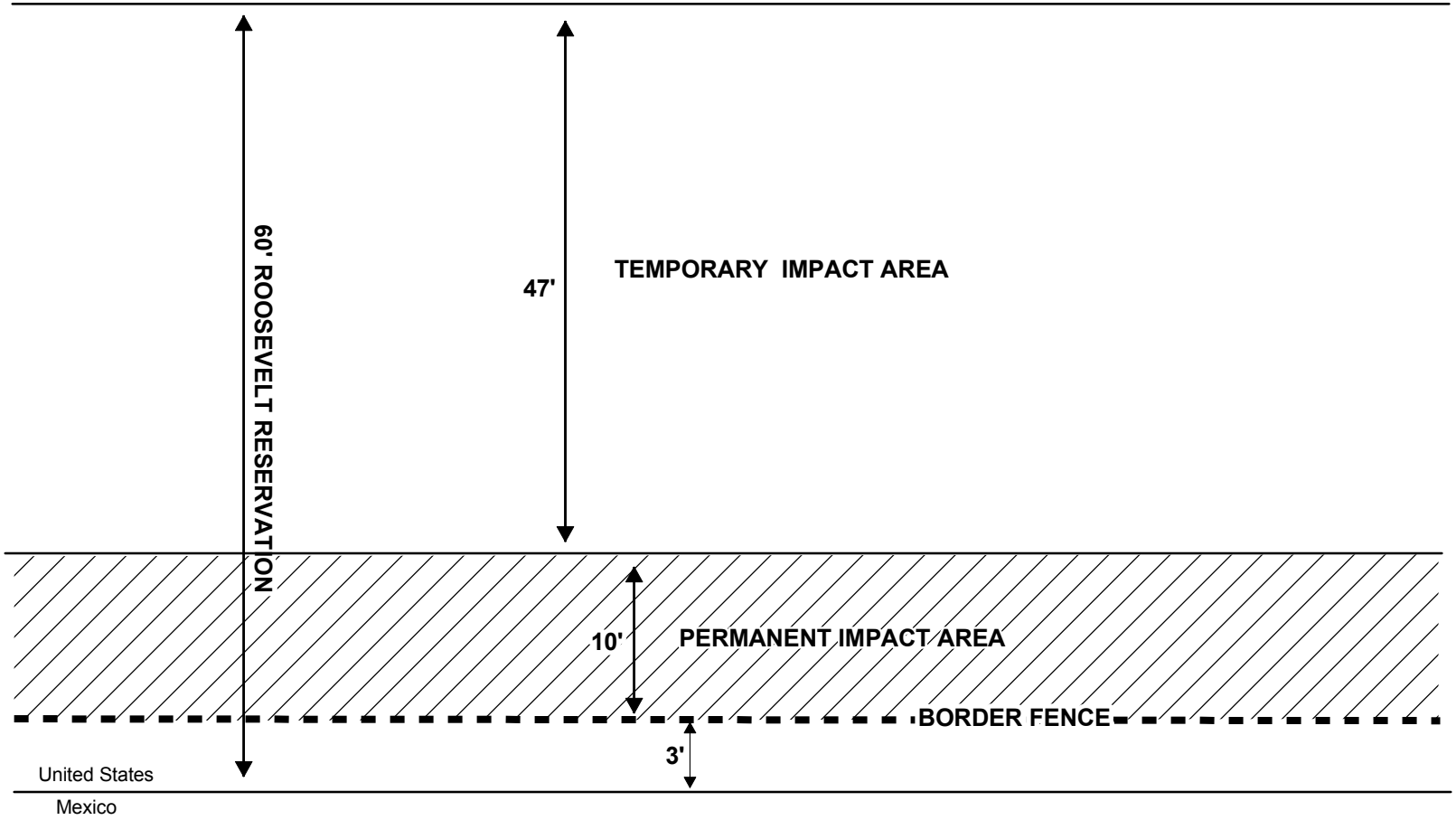
2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no aesthetic fence would be constructed along the border. The existing 2.2 miles of PVBs would remain in place and the PVBs outlined and identified in the JTF-6 EA (JTF-6 2004a) could still be constructed by JTF-N. The location of the proposed PVBs was presented in Figure 1.1 of the JTF-6 EA and is incorporated herein by reference (JTF-6 2004a). It should be noted that even without the construction of aesthetic fence, the JTF-6 EA construction action of 30 miles of PVBs would disturb and permanently impact approximately 52 acres within the project corridor.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative would be to install approximately 6.8 miles of aesthetic fence starting 1.11 miles west of the Santa Teresa Port of Entry (POE), and extending to the east of the POE along the U.S.-Mexico Border, for approximately 5.7 miles, past Blackie's Gate, on to the west end of Sunland Park. Figure 2-2 illustrates the impacted areas within the 60-foot Roosevelt Reservation for the proposed fence and other alternatives. As indicated in the Figure 2-1, the fence would be installed approximately 3 feet north of the International border. The final fence design would be developed by the design/build contractor. However, preliminary design performance measures dictate that the fence must:

- be 15 feet above ground and 3-6 feet below ground;
- capable of withstanding vandalism, cutting or penetrating;
- be semi-transparent, as dictated by operational need;
- be designed to survive extreme climate changes of a desert environment;
- be able to reduce any minimal impacts on small animal movement;
- not impede the natural flow of water; and
- be aesthetically pleasing



NOT TO SCALE

Figure 2-1: Fence Schematic

GSRC

Date: May 2007

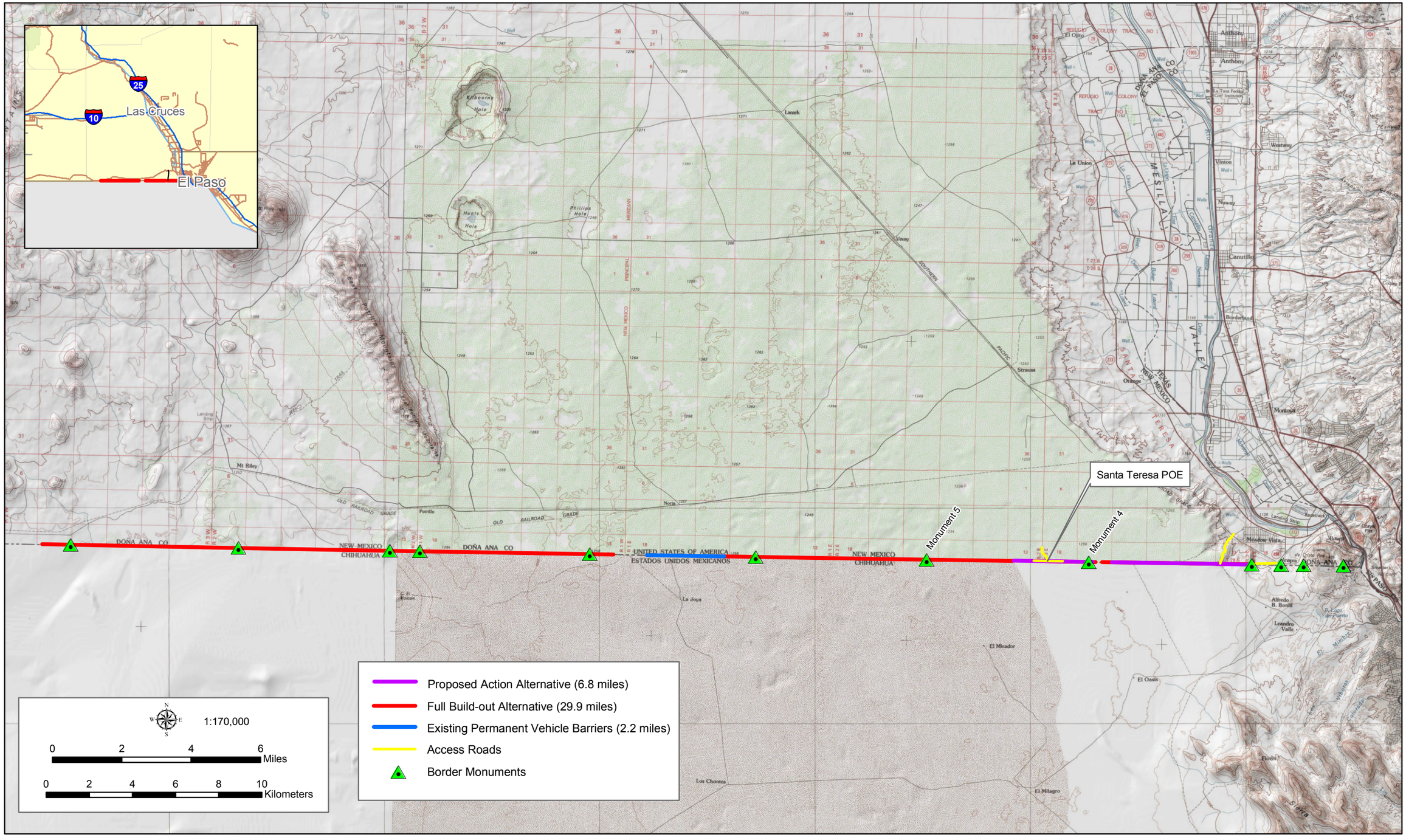


Figure 2-2: Locations of Alternatives Analyzed

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August 2007

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In addition, two north-south access roads were discussed in the JTF-6 EA in Section 2.1.2 and are incorporated herein by reference (JTF-6 2004a). These roads are also shown on Figure 2-2. These north-south access roads would be utilized for transfer of materials and personnel to and from the approximate 6.8 miles of proposed fence but would not undergo any improvements for the Proposed Action Alternative. Staging areas for the Proposed Action Alternative would be at the Santa Teresa POE and within previously disturbed areas. Currently, it is anticipated that the construction of 6.8 miles of aesthetic fence would take less than 1 year and would be scheduled to start in October of 2007. Selection of this alternative would not preclude JTF-N's installation of PVBs, as outlined and identified in the JTF-6 EA (JTF-6 2004a).

2.3 FULL BUILD-OUT ALTERNATIVE

Under the Full Build-out Alternative approximately 30 miles of aesthetic fence would be constructed in lieu of the PVBs proposed by the JTF-6. The aesthetic fence would be constructed approximately 6 miles to the east of the Santa Teresa POE and 24 miles to the west of the POE, and would remain within the Roosevelt Reservation. As mentioned above, the design of the fence would be developed by the design/build contractor, but would need to satisfy similar design criteria as the Proposed Action Alternative. Fences installed in washes/arroyos would be designed and constructed in a manner to ensure that water flow during excessive rain events would not be impeded or ponded. North-south access roads as mentioned in the Proposed Action Alternative would be utilized for transfer of materials and personnel to and from the approximate 30 miles of fence but would not undergo any improvements for the Full Build-out Alternative. Currently, it is anticipated that the Full Build-out Action Alternative would take approximately 3 years to complete the construction of 30 miles of aesthetic fence.

2.4 SUMMARY

Three alternatives, the No Action Alternative, the Proposed Action Alternative, and the Full Build-out Alternative are carried forward for analysis. An Alternatives Matrix (Table 2-1) presents each of the alternatives in comparison to selection criteria and the project's purpose and need. Table 2-2 presents a Summary Matrix of the impacts from the alternatives analyzed and how they affect the environmental resources in the project region.

Table 2-1. Alternatives Matrix

Purpose and Need	No Action Alternative	Proposed Action Alternative	Full Build-out Alternative
Provides safer working conditions	**Partial**	**Yes**	**Yes**
Allows agents increased effectiveness in the performance of their duties	**Partial**	**Partial**	**Yes**
Enhances the OBP's mission to gain, maintain, and extend control of the U.S.-Mexico border	**Partial**	**Yes**	**Yes**
Complies with the Secure Fence Act	**No**	**Yes**	**Yes**
Deters IAs entry into the U.S	**Partial**	**Partial**	**Yes**

Table 2-2. Summary Matrix of Potential Impacts

Affected Environment	No Action Alternative	Proposed Action Alternative	Full Build-out Alternative
Land Use	No impacts would occur.	Temporary and short term impacts would occur due to construction.	Temporary and short term impacts would occur due to construction.
Soils	No impacts would occur.	Permanent impacts to approximately 8 acres of previously disturbed soils.	Permanent impacts to approximately 36 acres of previously disturbed soils.
Vegetation Communities	No impacts would occur.	Approximately, 8 acres of permanent direct impacts from approximately 6.8 miles of fence would occur. The 6.8 miles is within the JTF-6 EA proposed action PVB footprint.	Permanent impacts would occur to approximately 36 acres of native vegetation communities through conversion to border infrastructure. Minor short term impacts would occur due to construction.
Fish and Wildlife Resources	No direct impacts would occur. Indirect impacts from IA foot traffic would continue to result in loss and degradation of wildlife habitat.	Approximately, 8 acres of permanent direct impacts to potential wildlife habitat would occur. The 6.8 miles is within the JTF-6 EA action PVB footprint. Although a decrease in IA foot traffic could occur at the aesthetic fence area, indirect effects to wildlife habitats would occur due to IAs circumventing the aesthetic fence.	Permanent impacts would occur to approximately 36 acres of potential wildlife habitat. Staging areas would cause an additional 7.5 acres of temporary impacts to wildlife habitat. Potential minor impacts would occur as the result of impeding transboundary migration within the 30-mile fence corridor.
Protected Species and Critical Habitat	No direct impacts would occur. Indirect effects from IA foot traffic would continue to result in loss and degradation of potential habitat for wildlife.	No impacts to critical habitat would occur, although there is suitable habitat to support the Federally protected aplomado falcon. Although a decrease in IA foot traffic could occur at the aesthetic fence area, overall indirect effects from IA foot traffic would continue to result in loss and degradation of potential habitat for wildlife.	No impacts to critical habitat would occur, although there is suitable habitat to support the Federally protected aplomado falcon. Decrease in IA foot traffic could cause a beneficial impact to aplomado falcon habitat.
Cultural Resources	No direct impacts would occur. Indirect impacts to unknown cultural resources could occur due to illegal pedestrian traffic.	No change to the JTF-6 EA footprint would occur; therefore, no additional impacts are anticipated. Avoidance and mitigation measures would be performed during construction to minimize damage to cultural resources.	No change to the JTF-6 EA footprint would occur; therefore, no additional impacts are anticipated. Avoidance and mitigation measures would be performed during construction to minimize damage to cultural resources.

Affected Environment	No Action Alternative	Proposed Action Alternative	Full Build-out Alternative
Aesthetics	No direct impacts would occur.	Short term insignificant impacts and long term minor impacts to visual resources. Use of an aesthetic fence would minimize impacts to the region's visual qualities.	Construction and maintenance of the proposed 30 miles of aesthetic fence in the surrounding area would cause a short term minor impact during construction, due to the extended construction timeline (approximately 3 years) and a long term minor visual impact in the area. Visual Resource Management (VRM) class guidance would be used.
Water Resources	No direct impacts would occur	It is anticipated that 2.2 million gallons of water would be use for construction of approximately 6.8 miles of aesthetic fence. Environmental design measures would be used, and a Stormwater Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) would be required to mitigate temporary construction impacts.	It is anticipated that 9.7 million gallons of water would be used for construction of approximately 30 miles of pedestrian fence. Several washes will be traversed; a Nationwide Permit (NWP) permit could be required based on a determination made by the U.S. Army Corps of Engineers.
Air Quality	No direct impacts would occur	There would be temporary minor impacts due to construction activities.	Short term construction emissions would be greater than in the Proposed Action due to the long construction time but still below *de minimis* levels.
Hazardous Material	No direct impacts would occur	Environmental design measures would be used to prevent any potential release during construction activities.	Environmental design measures would be used to prevent any potential release during construction activities.
Noise	No direct impacts would occur	There are sensitive noise receptors within a mile of the Proposed Action Alternative but noise would be attenuated. The noise impacts would be temporary and minor.	There are sensitive noise receptors within a mile of the Full Build-out project corridor but noise would be attenuated. The noise impacts would be the same as in the Proposed Action Alternative.
Socioeconomics	No direct impacts would occur; illegal activities would continue to cause negative impacts to U.S. citizens (JTF-6 2004 EA).	No direct impacts would occur.	No direct impacts would occur.

SECTION 3.0
AFFECTED ENVIRONMENT

3.0 AFFECTED ENVIRONMENT

This section of the EA describes the natural and human environment within the project area. Only those resources that have the potential to be affected by the Proposed Action Alternative are described, as per CEQ guidance (40 CFR 1501.7 [3]). Several topics are limited in scope due to the lack of effect from the proposed project on the resource, or because that particular resource is not located within the project area. Where data for resources are typically provided on a county-wide basis (*e.g.,* socioeconomics), the affected environment for those resources are described for Doña Ana County, New Mexico. Otherwise, where possible, resources were described independently for the project area. Resources dismissed from further discussion are:

- **Geologic Resources**

  Geologic resources information is incorporated from the JTF-6 EA and the OBP Programmatic EA. The Proposed Action Alternative would not affect the topography or geology in the proposed corridor (JTF-6 2004a and CBP 2004).

- **Climate**

  The Proposed Action Alternative would neither affect nor be affected by the climate.

- **Wild and Scenic Rivers**

  The Proposed Action Alternative would not affect any stretch of river designated as a Wild and Scenic River.

- **Communications**

  The Proposed Action Alternative would neither affect nor be affected by communications systems in the area.

- **Transportation**

  The Proposed Action Alternative would not affect any transportation or transportation corridor in the area.

- **Unique and Sensitive Areas**

  The Proposed Action Alternative would not affect any unique and sensitive areas because no areas designated as such are located within or near the project corridor.

3.1 LAND USE

The proposed project corridor consists mainly of undeveloped land and border access roads and a small commercial business district near the Santa Teresa POE, as defined in the JTF-6 EA, and incorporated herein by reference (JTF-6 2004a). Little change has occurred to land use in the project corridor and vicinity since 2004. The proposed project corridor is within the Federal government's 60-foot Roosevelt Reservation along the U.S.-Mexico border, which is designated for border enforcement.

3.2 SOILS

Seven soil map units were identified in the JTF-6 EA, and this information is incorporated herein by reference (JTF-6 2004a). The seven soil maps listed are:

- Minlith-Rock outcrop association,
- Simona-Harrisburg association,
- Mimbres silty clay loam,
- Wink-Pintura complex,
- Tencee-Upton association,
- Wink-Harrisburg association, and
- Pajarito-Pintura complex.

Most of the seven soil map units consist of loamy sand, sandy loam, loamy fine sand, fine sand, fine sandy loam, and gravelly sandy loam, or some combination of these loamy soils; although, the Minlith-Rock map soil unit does consist of 20 percent rock outcrop (JTF-6 2004a).

3.2.1 Prime Farmland

Prime farmland is protected under the Farmland Protection Policy Act (FPPA) of 1980 and 1995. The FPPA's purpose is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. As required by Section 1541(b) of Act, 7 USC 4202(b), Federal agencies are: (a) to use the criteria to identify and take into account the adverse effects of their programs on the preservation of farmland, (b) to consider alternative actions, as appropriate, that can lessen adverse effects, and (c) to ensure that their programs, to the extent practicable, are compatible with state and local governments and private programs and policies to protect farmland.

Prime farmlands are those farmlands that have the best combination of physical and chemical properties to be able to produce fiber, feed, or food, and are available for these uses. Unique farmland is defined as land other than prime farmland that is used for producing specific high-value food and fiber crops.

Farmlands of statewide importance (also protected under the FPPA) are areas of irrigated farmlands that do not meet the criteria of prime farmland, but have an irrigated capability. These

lands must also have a dependable water supply for irrigation to meet crop needs. Areas under this designation are limited to farmlands currently in production. According to the OBP Programmatic EA, only a very small portion (1,706 linear feet) of the project corridor contains Pajarito-Pintura soils, which are considered farmlands of state wide importance. This discussion can be found in the prime farmland portion of the OBP Programmatic EA and is incorporated herein by reference (CBP 2006). The protected soil types mentioned are not necessarily in agricultural production; therefore, none of the soils shown would be protected as a soil of statewide importance (CBP 2006). In addition, the specific project corridor is fully within the Roosevelt Reservation, and as such would negate consideration by the Natural Resource Conservation Service (NRCS) for FPPA.

3.3 BIOLOGICAL RESOURCES

3.3.1 Vegetation

The vegetation communities within the project corridor were discussed in the JTF-6 EA, and these discussions are incorporated herein by reference (JTF-6 2004a). Briefly, the desertscrub community within the project corridor includes the following common species: honey mesquite (*Prosopis glandulosa*), soaptree yucca (*Yucca elata*), creosotebush (*Larrea tridentata*), Mormon tea (*Ephedra* spp.), broom snakeweed (*Gutierrezia sarothrae*), spike dropseed (*Sporobolus contractus*), fluff grass (*Dasyochloa pulchella*), tree cholla (*Opuntia imbricata*), and ocotillo (*Fouquiena splendens*).

3.3.1.1 Non-native and Invasive Plant Species

New Mexico Department of Agriculture (NMDA) maintains a noxious plant list (*i.e.,* plants resulting in negative impacts to the economy or environment) which currently includes 32 species (NMDA 2003). This list is presented in Appendix A of this document, and represents a partial list of noxious plant species potentially occurring within the project corridor.

3.3.2 Wildlife Resources

The wildlife resources within the project corridor were discussed in the JTF-6 EA and these discussions are incorporated herein by reference (JTF-6 2004a). Briefly, the wildlife species observed within the project corridor during the JTF-6 site visits include the following species: blacktail jackrabbit (*Lepus californicus*), common raven (*Corvus corax*), great roadrunner (*Geococcyx californianus*), western kingbird (*Tyrannus verticalis*), Gambel's quail (*Callipepla*

gambelii), curve-billed thrasher (*Toxostoma curvirostre*), desert cottontail (*Sylvilagus audubonii*), spotted ground squirrel (*Spermophilus spilosoma*), and desert grassland whiptail (*Cnemidophorus uniparens*).

3.3.3 Protected Species and Critical Habitat

3.3.3.1 Federal Endangered Species

The ESA was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All Federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the Act. Responsibility for the identification of a threatened or endangered species and development of any potential recovery plans lie with the Secretary of the Interior and the Secretary of Commerce (most marine species).

A total of five Federally endangered, one threatened, and one candidate species occur in Doña Ana County and are listed in Table 3-1 (U.S. Fish and Wildlife Service [USFWS] 2007).

Table 3-1. Federally Listed, Proposed, and Candidate Species Potentially Occurring within Doña Ana, New Mexico

Common Name	Scientific Name	Listing Status
Interior least tern	*Sterna antillarum athalassos*	E
Mexican spotted owl	*Strix occidentalis lucida*	T
Northern aplomado falcon	*Falco femoralis septentrionalis*	E
Southwestern willow flycatcher	*Empidonax traillii extimus*	E
Yellow-billed cuckoo	*Coccyzus americanus*	C
Rio Grande silvery minnow	*Hybognathus amarus*	E
Sneed pincushion cactus	*Coryphantha sneedii*	E

Legend: E – Endangered T – Threatened C – Candidate
Source: USFWS 2007

Of the listed species potentially occurring in Doña Ana County, none would likely occur in the project corridor. Although, there are grasslands adjacent to the project corridor which could provide habitat for the northern aplomado falcon, these grasslands are not considered high quality according to criteria used by Young *et al.* (2005). The proposed project corridor does not support the habitat requirements needed for any of the listed species. As per the JTF-6 EA discussion and incorporated herein by reference, no evidence of the Federally or state listed threatened or endangered species were observed during surveys of the project corridor (JTF-6 2004a).

3.3.3.2 Critical Habitat

The ESA also calls for the conservation of what is termed critical habitat - 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. There are no critical habitats designated in Doña Ana County (USFWS 2007).

3.3.3.3 State Protected Species

In 1978, the State of New Mexico enacted the Wildlife Conservation Act (WCA) (N. M. Stat. Ann. § 17-2-37 through 17-2-46). The WCA defines an animal species as endangered if it is in jeopardy of extinction or extirpation from the state. A species is threatened if it is likely to become endangered within the foreseeable future throughout all, or a significant portion, of its range in New Mexico. Only species native to New Mexico are listed as threatened or endangered (New Mexico Department of Game and Fish [NMDGF] 2000). A complete list of threatened and endangered plants and animals potentially occurring in Doña Ana County is provided in Appendix A (NMDGF 2007). Many of the species listed as endangered or threatened by the NMDGF for Doña Ana County would not occur in the project corridor as there is no open water or riparian habitat nearby.

3.4 CULTURAL RESOURCES

Cultural resources were discussed in the JTF-6 EA and the OBP Programmatic EA, and are incorporated herein by reference (JTF-6 2004a and CBP 2006). 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. Section 106 of the NHPA requires CBP to identify and assess the effects of its actions on cultural resources.

Several previous cultural resources surveys have documented existing archaeological sties and other cultural resources in the general area. All of the surveys recorded prehistoric and historic sites in the general area and portions of each survey overlapped the current project corridor. Information about previous cultural resource surveys and testing is incorporated from the JTF-6 EA (JTF-6 2004a), the *Cultural Resource Survey along the U.S./Mexico Border* (JTF-6 2004b), and the *Archeological Testing of Ten Sites along the U.S./Mexico Border* (Ecological Communications Corporation [ECOMM] 2004).

3.4.1 Previous Archaeological Surveys

A total of 41 site locations within the project corridor were documented by JTF-6 and others. Six sites were recommended for avoidance, although three of these sites are not eligible for inclusion to the National Register of Historic Places (NRHP). The remaining three sites, however, are eligible for inclusion to the NRHP. Site LA85768, the U.S.-Mexico border, was determined eligible for inclusion to the NRHP on the basis of its importance in local, regional, and National history (JTF-6 2004b). Sites LA86788 and LA133193 are also eligible for inclusion to the NRHP (ECOMM 2004).

Of the remaining 35 sites, 16 sites were determined to have no additional research potential. The remaining 19 sites were recommended for archaeological monitoring in the JTF-6 EA and the monitoring of these sites is discussed in Section 4.4.3.

3.5 AESTHETICS

Aesthetics was discussed in the JTF-6 EA and the OBP Programmatic EA. Those discussions are incorporated herein by reference (JTF-6 2004a and CBP 2006). The aesthetic resources within the project corridor include the characteristic geologic features of the Basin and Range Province and the natural vegetation of the Chihuahuan Desert Biome. Historic uplift of faulted blocks and their subsequent erosion over millions of years has resulted in jagged mountain ridges rising abruptly from vast intermountain ranges. The low diversity and simple appearance of Chihuahuan Desert vegetation held within these relatively flat valleys creates a landscape that changes little in appearance from horizon to horizon.

3.6 WATER RESOURCES

The following sections describe the water resources for the project corridor and contain information on groundwater, surface water, wetlands and Waters of the U.S. (WUS), and water quality. This information is incorporated herein by reference from the JTF-6 EA and the OBP Programmatic EA (JTF-6 2004a and CBP 2006). In the arid climate of southern New Mexico, water availability and water quality are often discussed in tandem. Due to the rapid percolation and recharge of aquifers from surface waters, the quality of surface water reaching aquifers can limit the availability of potable water (CBP 2006).

3.6.1 Groundwater

New Mexico Environment Department (NMED) administers the Groundwater Quality Bureau (GWQB) whose mission is to preserve, protect and improve groundwater conditions in the State of New Mexico. The GWQB is mandated under New Mexico's Water Quality Act and the Water Quality Control Commission (WQCC) regulations (20.6.2 New Mexico Administrative Code [NMAC]) to fulfill its mission for groundwater resources in the state (NMED 2007).

The main source of groundwater for the project area is the Rio Grande aquifer system (JTF-6 2004a). The OBP Programmatic EA indicates that groundwater is discharged from the Rio Grande aquifer system near the Santa Teresa Area of Operation (AO) through evapotranspiration, withdrawal from wells and drains, discharge to streamflow, and underflow from one basin to another (CBP 2006). Within the Santa Teresa AO lies the Mesilla Basin, an open basin of the Rio Grande aquifer system, in which the groundwater withdrawals are offset by induced recharge, captured discharge, and surface recharge. Return flow from over 54,000 acres of irrigated cropland, as well as treated and untreated wastewater returns from Las Cruces, Santa Teresa, and other population centers now seep downward and help to stabilize groundwater levels near the Rio Grande (CBP 2006).

3.6.2 Surface Water

The project corridor is within the Lower Rio Grande basin; however, as noted in the JTF-6 EA, the actual project area has neither permanent nor intermittent water sources present (JTF-6 2004a). Due to the Rio Grande Rectification Project of 1933, the river no longer travels the course marking the eastern boundary of the Santa Teresa Station AO (CBP 2006).

3.6.3 Waters of the U.S. and Wetlands

Several unnamed ephemeral washes or arroyos were located in the westernmost portion of the proposed project corridor, as discussed in the JTF-6 EA, and this discussion is incorporated herein by reference (JTF 2004a). The JTF-6 EA concluded that the washes do not meet the definition of WUS as defined in 33 CFR 328; therefore, there are no jurisdictional waters within the boundaries of the proposed project area.

3.6.4 Water Quality

The basic authority for water quality management in New Mexico is provided through the State Water Quality Act; this law establishes the WQCC and specifies its duties and powers. The

WQCC has the basic authority in the state for the purposes of the Federal Clean Water Act (CWA), and wellhead protection and sole source aquifer programs of the Federal Safe Drinking Water Act. Detailed information on water quality is incorporated by reference from previous EAs within the project area (JTF-6 2004a and CBP 2006). Briefly, pollutants which affect the ability of the Rio Grande to support its designated uses include: turbidity, metals, pH, total ammonia, temperature, pathogens, plant nutrients, and conductivity.

3.7 AIR QUALITY

Information on air quality from the JTF-6 EA is incorporated herein by reference (JTF-6 2004a). Doña Ana County is classified as a moderate non-attainment area for particulate matter (PM-10) for National Ambient Air Quality Standards (NAAQS) (U.S. Environmental Protection Agency [USEPA] 2006).

3.7.1 Conformity Rule Requirements

The General Conformity Rule applies to areas that have been designated as a non-attainment zone for an air pollutant, such PM-10 in Doña Ana County. According to 40 CFR 51.853(b), Federal actions require a Conformity Determination for each pollutant where the total of direct and indirect emissions in a non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs 40 CFR 51.853(b)(1) or (2). If emissions from a Federal action do not exceed *de minimis* thresholds, and if the Federal action is not considered a regionally significant action, it is exempt from further conformity analysis.

3.8 SOLID AND HAZARDOUS WASTES

Solid and hazardous wastes are regulated in New Mexico by a combination of mandated laws promulgated by USEPA and NMED. The OBP Programmatic EA lists one site, Doña Ana Metal Survey in Sunland Park, which is in the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) database and still remains in the CERCLIS for further study (USEPA 2007). In addition, there is a municipal solid waste facility, Camino Real Landfill, which is located 1,326 feet (0.25 miles) north of the proposed fence easternmost section near Border Monument 3 and Sunland Park. A small portion of the landfill encroaches into the project corridor and would require specific coordination with the landowner and operator during

construction. All other information on solid and hazardous waste is incorporated herein by reference (JTF-6 2004a and CBP 2006).

3.9 NOISE

The discussion on noise from the JTF-6 EA is incorporated herein by reference (JTF-6 2004a). The project corridor area encompasses largely rural/undeveloped areas. However, approximately 1.45 miles of the eastern portion of the proposed fence corridor is located approximately 1,800 feet from the residential neighborhood of Sunland Park, New Mexico on the northern side of the border and a residential neighborhood in Anapra, Mexico on the southern side of the border. The Sunland Park neighborhood is buffered from the project corridor by railroad tracks, roads, hills, and several hundred yards of undeveloped desert. A commercial business district has been constructed adjacent to the Santa Teresa POE. For most of the project corridor, the ambient day-night level (DNL) would be expected to be around 65 decibels, A-weighted scaled (dBA). Near the land fill, Santa Teresa POE, and residential areas, the ambient DNL would be expected to be slightly higher than 65 dBA.

3.10 SOCIOECONOMICS

The socioeconomic environment for the project region is described in detail in the JTF-6 EA and the OBP Programmatic EA (JTF-6 2004a and CBP 2006), and is incorporated herein by reference. In summary, the JTF-6 and OBP Programmatic EAs examined population structure, housing, environmental justice and protection of children. Only portions of the socioeconomic environment that have changed since the OBP programmatic EA are discussed in this EA. Table 3-2 illustrates the difference in socioeconomic data for those indices which have changed between the current EA, the JTF-6 EA, and the OBP Programmatic EA. The Region of Influence (ROI) examined is Doña Ana County. Doña Ana County is part of the Las Cruces Metropolitan Statistical Area (MSA).

Table 3-2. Socioeconomic Date from Current EA and Previous EAs

Index	JTF-6 EA	OBP Programmatic EA	Current EA Data
Total number of jobs	NA	79,974 (2000)	87,493 (2005)
Annual unemployment rate – Las Cruces MSA, percent	NA	9.2 (2000)	5.8 (2005)
Total personal income, in billions	$3.0 (1999)*	$4.0 (2003)	$4.4 (2004)
Per capita personal income	$17,216 (1999)	$20,756 (2003)	$23, 070 (2005)
Percentage of all ages in poverty	NA	25.4 (2000)	23.0 (2004)

Source: Bureau of Economic Analysis (BEA) 1999, BEA 2005a & b, CBP 2006, JTF-6 2004, New Mexico Department of Labor 2006, U.S. Census Bureau 2004
* The reported value in the 2004 JTF-6 document was incorrect; the value in this table comes from BEA 1999.

The 2005 annual total personal income (TPI) for the ROI was $4.4 billion. This TPI ranked 3rd in the State of New Mexico, and accounted for 8.1 percent of the state total (BEA 2005b). Over the past 10 years, the average annual growth rate of TPI was 6.0 percent. This is higher than the annual growth rate for the state (5.4 percent), and higher than that for the Nation (5.2 percent) (BEA 2005b). Per capita personal income (PCPI) for Doña Ana County was $23,070 in 2005. This PCPI ranked 16th in the state, and was 83 percent of the state average ($27,889) and 67 percent of the National average of ($34,471) (BEA 2005b). The average annual growth rate of PCPI over the past 10 years was 4.3 percent, which is higher than the state's growth rate of 4.2 percent and the National growth rate of 4.1 percent (BEA 2005b). The estimated percentage of people of all ages living in poverty for Doña Ana County in 2004 was 23.0 percent, which is higher than the estimated 16.7 percent of the state population that lives in poverty (U.S. Census Bureau 2004).

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

4.0 ENVIRONMENTAL CONSEQUENCES

This section of the EA addresses the potential impacts associated with the implementation of the Proposed Action Alternative, the No Action Alternative, and the Full Build-out Alternative outlined in Section 2.0. Impacts to the human and natural environment can be characterized as beneficial or adverse, and can be direct or indirect based upon the result of the action. Direct impacts are those effects that are caused by the action and 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]). The effects can be temporary, short in duration (short term), long lasting (long term), or permanent. For purposes of this EA, temporary effects are defined as those that would last for the duration of the construction period; short term impacts would last from the completion of construction to 3 years. Long term impacts are defined as those impacts that would occur from 3 to 10 years after construction, while permanent impacts indicate an irretrievable loss or alteration.

Impacts can vary in magnitude from a slight to a total change in the environment. The impact analysis presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge and best professional opinions. The impacts on each resource are described as significant, moderate, minor (minimal), insignificant or no impact. Significant impacts are those effects that would result in substantial changes to the environment (as defined by 40 CFR 1500-1508). All impacts described are adverse unless otherwise noted. Additionally, a quantitative impact analysis was used to describe potential impacts when data were available for the given resource (*e.g.,* vegetation, air).

Figure 2-1, shown previously, depicts an aesthetic fence schematic that illustrates typical areas of impact in the proposed corridor. The various alternatives analyzed would potentially cause temporary and permanent impacts to resources as outlined in the following subsection. The No Action Alternative would have no impact to the project corridor as there would be no construction of fence, although it should be noted that the construction of 30 miles of PVBs as proposed in the JTF-6 EA would cause 52 acres to be temporarily and permanently impacted within the project corridor (JTF-6 2004a) if JTF-N continues with their proposed action. The Proposed Action would cause 39 and 8 acres of temporary and permanent impacts, respectively, to resources within the project corridor and includes impacts to the previously disturbed areas at the Santa Teresa POE which would be used as temporary staging areas. During construction of the Full Build-out

Alternative, temporary staging areas would be necessary and there would be a total temporary impact of approximately 178 acres of project resources. Once completion of the Full Build-out occurs approximately 36 acres would be permanently impacted under this action. Temporary construction staging areas would be necessary for the Full Build-out Alternative approximately every 2 miles along the 30-mile corridor to facilitate construction while minimizing impacts to vegetation, soils and wildlife habitat.

4.1 LAND USE

4.1.1 No Action Alternative

No impacts are expected as the construction of aesthetic fence would not occur.

4.1.2 Proposed Action Alternative

No changes to land use would occur as the Roosevelt Reservation is designated for border enforcement. The Proposed Action is within the same footprint as the action proposed in the JTF-6 EA, and that discussion is incorporated herein by reference (JTF-6 2004a).

There is the potential that indirect impacts could occur outside of the project corridor as IAs attempt to circumvent the proposed infrastructure. These impacts would be difficult to quantify currently because IA patterns and migration routes are completely out of the OBP's control. However, the aesthetic fence would act as a force multiplier and allow for the OBP to deploy agents to areas without pedestrian barriers and therefore, minimizing potential adverse indirect impacts. Indirect beneficial impacts could occur as a result of decreased illegal traffic within the project corridor. By reducing illegal traffic within and adjacent to the project corridor, disturbance to land north of the project corridor would also be reduced or possibly eliminated.

4.1.3 Full Build-out Alternative

There would be no permanent changes to land use since the Roosevelt Reservation is designated for border enforcement. Use of the staging areas would result in temporary and short term changes to land use; however, upon completion of construction, the staging areas would be rehabilitated and would return to rangeland within 3 to 5 years after cessation of construction activities.

The indirect effects of IAs attempting to circumvent the aesthetic fence, as described for the Proposed Action Alternative, would occur under the Full Build-out Alternatives well. However, because of the greater length of the fence (30 miles vs. 6.8 miles), more area north of the aesthetic fence would be protected from IA vehicle and foot traffic under the Full Build-out Alternative.

4.2 SOILS

4.2.1 No Action Alternative

No impacts are expected as the construction of aesthetic fence would not occur.

4.2.2 Proposed Action Alternative

Long term permanent impacts would occur to 8 acres of soil resources within the approximate 6.8-mile corridor. Construction of the approximate 6.8-mile aesthetic fence would occur in the same footprint as the PVBs proposed by JTF-6 and the discussion of those impacts are incorporated herein by reference (JTF-6 2004a).

Minor short term impacts would potentially occur during construction activities; however, these impacts would be reduced to an insignificant level through the use of Best Management Practices (BMPs) (as described in Section 6.0) and from the short duration of the construction process (1 year). The Proposed Action Alternative would permanently impact approximately 8 acres and temporarily impact 39 acres of previously disturbed soils in the Roosevelt Reservation. However, these soils have been disturbed for many years through public and private use, as well as for border enforcement.

4.2.3 Full Build-out Alternative

Ground disturbance required to construct the Full Build-out Alternative would permanently impair approximately 36 acres, including 2.4 acres of Pajarito-Pintura soil. In addition, approximately 178 acres of soils, which have been previously disturbed, would also be temporarily impacted during construction. However, since the Pajarito-Pintura soils are not irrigated and are wholly within the Roosevelt Reservation, they would not be protected as a Farmland of Statewide Importance; thus, consultation with NRCS regarding FPPA would not be required. Furthermore, these soils have been disturbed for many years through their use as border infrastructure. An

additional 7.5 acres (included within the 178 acres) would be temporarily impacted by the staging areas. These areas would be rehabilitated upon completion of the construction.

Minor short term impacts would potentially occur during construction activities; however, these impacts would not be considered significant due to the currently disturbed nature of the Roosevelt Reservation within the project corridor. Potential temporary impacts would be minimized through the use of BMPs, which can be found in Section 6.0.

Additionally, the Full Build-out Alternative could result in a decrease in the volume of illegal traffic; and therefore, could result in long term indirect beneficial impacts to soils. Indirect adverse effects to soils could occur in adjacent areas where the border infrastructure proposed under this alternative is not employed, as IAs try to circumvent the improved areas to avoid detection.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation

4.3.1.1 No Action Alternative

Under the No Action Alternative, no impacts are expected as no construction of aesthetic fence would occur.

4.3.1.2 Proposed Action Alternative

Vegetation within the project corridor consists of Chihuahuan desertscrub and Chihuahuan Semi-desert Grassland communities. These communities would be directly impacted during the construction of the approximate 6.8 miles of aesthetic fence.

Approximately 8 acres of Chihuahuan desertscrub would be permanently converted to aesthetic fence and its associated maintenance right of way, while approximately 39 acres would be temporarily impacted under the Proposed Action Alternative. However, these same acres would also be impacted under the JTF-6 EA action, as the construction of the aesthetic fence is located within the PVB construction footprint, and the vegetation resources discussions are incorporated herein by reference (JTF-6 2004a). In the JTF-6 EA, approximately 52 acres would be permanently converted from native vegetation communities to roadways and tactical infrastructure. Also, indirect effects from IA foot traffic would continue and the foot traffic could indirectly result in loss and degradation of habitat for wildlife (JTF-6 2004a).

Additionally, within the project corridor the vegetation communities impacted are common and abundant, both locally and throughout the Chihuahuan Desert. Natural vegetation in the temporary construction areas would be allowed to regenerate from the existing seed bank, undamaged root stocks of shrubs, and stem segments of cacti, or undergo active rehabilitation, if deemed necessary.

Illegal foot or vehicular traffic degrades the native ecosystem by trampling vegetation and compacting soils. As vegetation is removed, soils become unstable and susceptible to compaction and erosion. The construction of aesthetic fence in the project corridor would reduce illegal vehicle and foot traffic north of the fence. The reduction of illegal traffic in the project corridor would ultimately benefit natural vegetation communities north of the border.

Impacts to vegetation communities would not be significant, as the construction activities and subsequent operations are not expected to inhibit ecological processes, population size, population connectivity, migration, or fecundity of any plant species within the project corridor.

4.3.1.3 Full Build-out Alternative

The impacts associated with the Full Build-out Alternative are similar, although greater, than those described for the Proposed Action Alternative. Approximately 36 acres of native vegetation communities would be permanently impacted. Temporary construction staging areas would be necessary every 2 miles along the approximately 30-mile corridor. Temporary impacts to vegetation communities from staging areas would be approximately 7.5 acres (15 staging areas X 0.5 acre) and 170 acres within the Roosevelt Reservation for a total of approximately 178 acres. Natural vegetation in the temporary construction areas would be allowed to regenerate, while employing measures to prevent the establishment of non-native and/or invasive species.

4.3.2 Wildlife

4.3.2.1 No Action Alternative

Under the No Action Alternative, no impacts are expected as no construction of aesthetic fence would occur.

4.3.2.2 Proposed Action Alternative

The Proposed Action Alternative would not have direct impacts to fish or other aquatic species, because the proposed construction activities would not take place in naturally flowing or standing

water, although the Proposed Action Alternative would result in approximately 8 acres of permanent and 39 acres of temporary direct impacts to wildlife habitat. However, these same acres would be impacted under the JTF-6 EA action, since the aesthetic fence footprint would be within the PVB construction footprint and these discussions are incorporated herein by reference (JTF-6 2004a). In summary, the JTF-6 EA describes approximately 52 acres of permanent impacts due to the conversion of potential wildlife habitat to roadways and border infrastructure. In addition, indirect effects from IA foot traffic would continue, and could result in loss and degradation of habitat for wildlife.

Wildlife species having the greatest chance of being directly impacted from the Proposed Action Alternative include small mammals, reptiles, and bird species. However, surveys would be performed prior to any construction or clearing activities scheduled during the nesting season (typically March 15 through September 15) to insure that no migratory bird species are harmed by construction activities, in accordance with the Migratory Bird Treaty Act (MBTA).

The greatest movement of small animals generally happens when a disturbance, such as bulldozing or aesthetic fence construction, occurs. Mobile animals escape to areas of similar habitat, while other slow or sedentary species of reptiles, amphibians, and small mammals could potentially be lost. This displacement or reduction in the number of animals would not significantly impact animal communities due to the presence of similar habitat adjacent to the project corridor. Transboundary wildlife movement throughout the project area would be impeded by the installation of the aesthetic fencing. However, parts of this area, such as the Santa Teresa POE, are disturbed and developed and provide a limited transboundary migratory corridor to wildlife species. A total of approximately 6.8 miles of aesthetic fence, which is near some of these developments, would result in a negligible effect to transboundary migration.

In order to account for the adequate concrete drying and curing processes, some concrete pours for fence foundations would need to take place during pre-dawn hours during summer months. Therefore, a night-time work schedule during these times may be required from 3:00 AM to 9:00 AM. The discussion regarding the impacts of night-time lighting on wildlife from the OBP Programmatic EA is included herein by reference (CBP 2006). In summary, continual exposure to light has been proven to slightly alter circadian rhythms in mammals and birds. It has also been shown that within several weeks under constant lighting, mammals and birds would quickly stabilize and reset their circadian rhythms back to their original schedules (Carpenter and

Grossberg 1984). The long term effects of an increased photoperiod on mobile wildlife species would be expected to be insignificant.

Additionally, short term impacts to wildlife species from increased noise during construction activities would occur. The discussion regarding the impacts of noise on wildlife from the OBP Programmatic EA is included herein by reference (CBP 2006). Behavioral responses vary among species of animals and even among individuals of a particular species. Minor responses include head-raising and body-shifting, and usually, more disturbed mammals will travel short distances. Panic and escape behavior results from more severe disturbances causing the animal to leave the area (Busnel and Fletcher 1978). As construction activities would be limited in duration and predominately during daylight hours, short term impacts of noise on wildlife species are expected to be insignificant.

The construction of permanent aesthetic fence would also indirectly impact wildlife due to fragmentation of habitats. However, fragmentation is also a function of the degree of contrast in quality between the local habitat and its surroundings (Franklin *et al.* 2002). The project corridor is Chihuahuan desertscrub and most of the construction would occur in previously disturbed areas along an existing border road. Fragmentation could remove or alter some wildlife habitat, but, compared to the vast amounts of similar habitat in the proximity of the project corridor, this would be expected to be insignificant.

The reduction of illegal traffic in the project corridor would indirectly benefit wildlife habitat. Illegal foot or vehicle traffic, either on established roads or off-road routes, degrades the native ecosystem by trampling vegetation and compacting soils. Wildlife habitat is directly impacted as vegetation is lost and unable to naturally regenerate due to unstable or compacted soils and continued disturbance. Vegetation loss reduces foraging, nesting, and cover habitat for many species.

The Proposed Action Alternative would not conflict with the provisions of approved Federal, state or local habitat conservation plans, or substantially interfere with the movement of any native or migratory wildlife species. Therefore, this alternative would not significantly impact wildlife resources.

4.3.2.3 Full Build-out Alternative

The Full Build-out Alternative would result in similar impacts to wildlife and their habitat as identified above for the Proposed Action Alternative. However, since approximately 30 miles of aesthetic fencing would be installed, there would be greater fragmentation and transboundary migration impacts, and greater amounts of wildlife habitat converted into fencing and associated maintenance right of way than in the Proposed Action Alternative. The design of fences installed in washes/arroyos, which occur in the western portion of the project corridor, would also allow the transboundary migration of reptiles, amphibians and small mammals and reduce the fragmentation effects. Approximately 36 acres of potential wildlife habitat would be permanently impacted. Temporary impacts to wildlife habitat would be approximately 178 from construction and staging activities within the Roosevelt Reservation. Natural vegetation in the temporary construction areas would be allowed to regenerate, while employing measures to prevent the establishment of non-native and/or invasive species.

4.3.3 Threatened and Endangered Species

4.3.3.1 No Action Alternative

No impacts are expected as the construction of aesthetic fence would not occur.

4.3.3.2 Proposed Action Alternative

No designated critical habitat exists within the project corridor; therefore, no direct impacts to critical habitat would occur. The JTF-6 EA determined that the construction of the PVBs and road improvements would have an insignificant indirect impact to Federal threatened or endangered species and those discussions are incorporated herein by reference (JTF-6 2004a).

Although there are grasslands which could provide foraging habitat for the northern aplomado falcons that occur sporadically throughout the project corridor, these habitats are considered of low quality, as discussed previously. Due to the isolated nature of these grasslands, their low quality, and the juxtaposition to the existing border infrastructure and the development surrounding the Santa Teresa POE, the loss of this habitat would not be considered significant. Furthermore, the proposed aesthetic fencing and JTF-6 proposed border infrastructure (JTF-6 2004a) would protect grassland habitat north of the project corridor from future degradation as a result of illegal foot and vehicle traffic. The likelihood that construction activities and subsequent OBP operations would harm the aplomado falcon is discountable. Therefore, CBP has determined

that the Proposed Action Alternative may affect but, is not likely to adversely affect the aplomado falcon.

A letter requesting concurrence on CBP's findings on the aplomado falcon was submitted to USFWS on August 21, 2007, and the response will be incorporated into this EA. In July 2006, the USFWS designated the aplomado falcon a nonessential experimental population throughout Arizona and New Mexico. Under this designation Federal agencies are required to confer (rather than consult) with the USFWS; however, the results of the conference are advisory and do not restrict agencies from carrying out activities.

Pre-construction surveys would be conducted if the construction occurs during migratory bird nesting season. If aplomado falcons are observed during these surveys, OBP would halt the project and immediately contact USFWS to identify conservation measures.

Disturbances from illegal vehicle traffic and subsequent OBP enforcement actions can adversely affect breeding, nesting, and reproductive success of protected species. Illegal vehicle traffic also disturbs and degrades the habitat used by these species. Therefore, the Proposed Action Alternative would have a beneficial long term impact on Federally and state listed species and their habitats by reducing or eliminating cross-country illegal vehicle traffic, fugitive dust, harassment of these species, and erosion (INS *et al.* 2002).

Although the Proposed Action Alternative would potentially impact species protected by Bureau of Land Management (BLM) or the State of New Mexico, these impacts would be minimal, and are not likely to have adverse effects over a substantial period of time or area. Coordination with state agencies would occur, as necessary, for the avoidance or removal of BLM or state protected plant species observed within the project corridor prior to construction activities. As deemed necessary, use of biologists to monitor construction progress would be coordinated with the appropriate resource agencies to ensure that this action would not result in adverse affects to any protected species.

As further described in Section 6.3, conservation measures would be incorporated to ensure that any potential impacts to any protected species or species of special concern would remain at a discountable level. In addition to the conservation measures, CBP would require the periodic, random inspection of construction operations by qualified biologists. These conservation

measures would provide for an added level of insurance that potential adverse impacts to protected species occurring within the project corridor would be minimized.

4.3.3.3 Full Build-out Alternative

The impacts to protected species under the Full Build-out Alternative would be the same as those described for the Proposed Action Alternative. Although there is the potential for more grasslands to be impacted, there would still be no adverse impact to the northern aplomado falcon due to the low quality of these grassland communities and the conservation measures (including pre-construction surveys) that would be implemented. Furthermore, the construction of nearly 30 miles of pedestrian fence would, in the long term, protect more grassland communities from the damages caused by IA traffic. This protection would be expected to benefit the northern aplomado falcon.

4.3.4 Non-native and Invasive Plants

4.3.4.1 No Action Alternative

Under the No Action Alternative, illegal foot traffic would continue to cross into the project corridor potentially carrying non-native and invasive plant species propagules. Illegal traffic would continue to disturb soils, providing opportunities for non-native and invasive plant species to become established and potentially introducing additional non-native species to the region.

4.3.4.3 Proposed Action Alternative

The Proposed Action Alternative would also serve as a barrier to the spread of non-native and invasive plants, as many invasive plant propagules are carried on clothing or in vehicles of IAs. However, as only approximately 6.8 miles of fencing would be built, less of the native plant communities north of the project corridor would be protected than in the Full Build-out Alternative. Environmental design measures, in conjunction with the infrastructure of the Proposed Action Alternative, would substantially reduce the risk of spreading non-native and invasive plant species as compared to the No Action Alternative.

4.3.4.2 Full Build-out Alternative

With the implementation of the Full Build-out Alternative, the effects of illegal foot traffic would be substantially reduced. Environmental design measures, in conjunction with the infrastructure of the Full Build-out Alternative, would substantially reduce the risk of spreading non-native and invasive plant species as compared to the No Action Alternative.

4.4 CULTURAL RESOURCES

4.4.1 No Action Alternative

No direct impacts to cultural resources would occur, as no construction activities would take place. Illegal pedestrian traffic could continue due to the lack of infrastructure, potentially resulting in indirect impacts to unknown cultural materials outside of the project corridor.

4.4.2 Proposed Action Alternative

Within the Proposed Action Alternative construction footprint, there is a low probability of encountering any unknown cultural resources during construction due to the extreme amount of disturbance that has occurred, and continues to occur in the project corridor. Indirect adverse impacts to cultural resources could potentially occur as IAs travel to adjacent areas with less developed border infrastructure in order to avoid detection. The impacts to cultural resources as a result of the implementation of proposed JTF-6 action were discussed in Section 4.7.1 of the 2004 JTF-6 EA, and are incorporated herein by reference (JTF-6 2004a).

Several impacts to cultural resources would occur from the implementation of the Proposed Action Alternative and include: temporary increase in traffic by heavy equipment; mechanical evacuation of postholes; road improvements; and permanent reduction in illegal traffic across sites.

Avoidance is recommended for three sites in the 6.8-mile Proposed Action Alternative project corridor (see Section 3.4.1). It is recommended that the construction be allowed to proceed as planned with the following stipulations:

(a) all portions of site LA86788 north of the unimproved border road should be prominently flagged and or fenced prior to construction;

(b) all portions of sites LA86780 and LA139004 should be prominently flagged and or fenced prior to construction;

(c) construction personnel should be informed of the presence of the areas as environmentally restricted zones; and

(d) each site should be monitored by qualified, professional archeologists during construction to ensure that the site boundaries are not breached and to inspect construction excavations for cultural evidence.

In addition, the cultural resources site LA85768 has been documented within the approximate 6.8-mile pedestrian fence construction corridor. This NRHP-eligible site is the U.S.-Mexico border

and is unavoidable. Section 106 consultation and mitigation measures would be identified and implemented in order to (1) avoid the site to the extent practicable, (2) recover data, and (3) monitor construction activities to ensure potential impacts are minimized. The proposed fence will be designed by the design/build contractor to maintain a minimum distance buffer between all construction activities and the border fence and the Border Monuments.

Three sites are recommended for monitoring in the JTF-6 Cultural Resources Survey (JTF-6 2004b). These sites may be located within the Proposed Action Alternative project corridor, but would not be impacted by the placement of the aesthetic fence because the portion of the sites within the fence construction footprint has been previously disturbed. Specifically, these sites have unknown but doubtful potential for further research as they lack artifact assemblage and diversity and the potential for intact buried deposits (JTF-6 2004b). Only the portion of the sites north of the road retains intact deposits that would require an archaeological monitor (ECOMM 2004). Should impacts from the proposed undertaking extend to the north side of the road, a monitor would be present during construction within proximity of the sites.

In addition, OBP requested and received SHPO concurrence of no effect to cultural properties as a result of the Proposed Action Alternative (see Appendix C). Early coordination with Native American Tribes has occurred and none have provided comments on the project.

4.4.3 Full Build-out Alternative

Under the Full Build-out Alternative, the impacts to cultural resources would be similar to those described in Section 4.4.2, as the approximate 6.8 miles of aesthetic fence is included in the proposed 30-mile aesthetic fence installation. Measures to avoid or mitigate impact to the cultural resources would be adhered to as mentioned above. Upon further environmental planning for the Full Build-out Alternative, any staging areas that would be planned would be surveyed for the NRHP eligible sites.

Indirectly, the reduction of illegal traffic through the area would have the potential for long term beneficial impacts to cultural resources found in the region. The reduction of illegal traffic would decrease the amount of foot and vehicle traffic through the area, thus, reducing potential impacts to cultural resources.

Avoidance is recommended for two additional sites in the 30-mile Full Build-out Alternative project corridor (see Section 3.4.1 and Section 4.4.2). It is recommended that the construction be allowed to proceed as planned with the following stipulations:

(a) all portions of sites LA139005 and LA139013 (near Border Monument 8 and 6, consecutively) should be prominently flagged and or fenced prior to construction;

(b) construction personnel should be informed of the presence of the areas as environmentally restricted zones; and

(c) each site should be monitored by qualified, professional archeologists during construction to ensure that the site boundaries are not breached and to inspect construction excavations for cultural evidence.

In addition, 16 sites recommended for monitoring in the JTF-6 cultural resources survey (JTF-6 2004b) may be located within the Full Build-out Alternative project corridor; however, these sites would not be impacted by the placement of the aesthetic fence because the portion of the sites within the fence construction footprint has been previously disturbed. Specifically, these sites have unknown but doubtful potential for further research as they lack artifact assemblage and diversity and the potential for intact buried deposits (JTF-6 2004b). Only the portion of the sites north of the road retains intact deposits that would require an archaeological monitor (ECOMM 2004). Should impacts from the proposed undertaking extend to the north side of the road, a monitor would be present during construction within proximity of the sites.

4.5 AESTHETICS

4.5.1 No Action Alternative

Under the No Action Alternative, no impacts are expected as no construction of aesthetic fence would occur, although, existing border infrastructure (*e.g.,* barbed wire fence, PVBs) has degraded the aesthetic resources of the project corridor.

4.5.2 Proposed Action Alternative

The surrounding landscape is valued for its unchanging landscape from horizon to horizon (CBP 2006). Construction and maintenance of the proposed approximate 6.8 miles of aesthetic fence, when considered in conjunction with the surrounding existing border infrastructure, would cause a short term moderate impact during construction and a long term insignificant visual impact on the visual quality of the region. The JTF-6 EA concluded that there would be a short term insignificant impact due to the ground disturbance during construction and a long term insignificant visual

impact from the construction of the PVBs. These discussions are incorporated herein by reference from the JTF-6 EA (JTF-6 2004a).

Additionally, one of the design selection criteria of the aesthetic fence, as mentioned previously in Section 3; is that the fence must be aesthetically pleasing.

4.5.3 Full Build-out Alternative

Construction and maintenance of the proposed approximate 30 miles of aesthetic fence in the project area would cause a minor impact during construction due to the extended construction timeline (approximately 3 years) and a long term, but minor visual impact on the visual quality of the region, in part due to its long expanse.

A large portion of the land north of the 30-mile Full Build-out Alternative is owned and managed by the BLM, and is assigned visual resource management (VRM) classes. The visual resource inventory classes serve a two-fold purpose. The VRM serves as an inventory tool that portrays the relative value of the visual resources and serves as a management tool that portrays the visual management objectives. Approximately 12 miles of the 30-mile project corridor is designated as VRM Class 3 which allows for a moderate change to the landscape, which should partially retain the existing characteristics and should not dominate the view of a casual observer. In addition, the change should repeat the basic elements found in the predominate features of the surrounding landscape. The 30-mile corridor also has a small section (less than 1 mile near Border Monument 11), which has a VRM Class 4 designation that allows a high level of change and the change can dominate the landscape and view of the casual observer. In addition, the change can minimize impacts by limiting disturbance and repeating basic elements. Given that the aesthetic fence is in a remote area not readily visible to casual observer, and these reaches are Class 3 and 4 VRM areas, the aesthetic fence would be considered in compliance with BLM's VRM.

4.6 WATER RESOURCES

4.6.1 Groundwater

4.6.1.1 No Action Alternative

The No Action Alternative would have no impacts to groundwater resources as no aesthetic fence would be constructed.

4.6.1.2 Proposed Action Alternative

Under the Proposed Action Alternative, water would be required for pouring concrete and watering of road and ground surfaces during construction. Water use for construction would be temporary, and the volume of water used for construction would be minimal. Additionally, this amount is minimal in comparison to the volume used annually in the area for municipal, agricultural, and industrial purposes. The JTF-6 EA section on water resources consequences is incorporated herein by reference (JTF-6 2004a).

Approximately, 2,213,000 gallons of water would be needed for the construction of the proposed 6.8 miles of aesthetic fence. This use assumes that patrol roads and construction areas would be watered for dust suppression and for actual use during construction for one year. Water not lost to evaporation during watering of surfaces during construction would potentially contribute to aquifer recharge through downward seepage.

4.6.1.3 Full Build-out Alternative

Under the Full Build-out Alternative, water would be required for pouring concrete and watering of road and ground surfaces during construction. Water use for construction would be temporary and the volume of water used for construction would be similar to the amount required for the No Action Alternative. This amount would still be minimal in comparison to the volume used annually in the area for municipal, agricultural, and industrial purposes. Approximately, 9,743,000 gallons of water would be needed for the construction of this alternative of 30 miles of proposed aesthetic fence. This use assumes that patrol roads and construction areas would be watered for dust suppression and for actual use during construction for three years. Water not lost to evaporation during watering of surfaces during construction would potentially contribute to aquifer recharge through downward seepage.

4.6.2 Surface Water and Wetlands and Waters of the U.S.

4.6.2.1 No Action Alternative

The No Action Alternative would not impact surface water and wetlands because no construction of fence would occur in the project area.

4.6.2.2 Proposed Action Alternative

The Proposed Action Alternative would not impact wetlands or WUS because no washes/arroyos that could be considered as jurisdictional WUS were identified by JTF-6 (2004a) in the

approximate 6.8-mile corridor of the Proposed Action Alternative. Thus, a Section 404 permit would not be required. The construction of the approximate 6.8 miles of aesthetic fence could alter natural sheetflow drainage patterns if not constructed properly; however, proper design and stormwater retention/detention measures would be incorporated into the environmental design measures as described in Section 6.0.

4.6.2.3 Full Build-out Alternative

The Full Build-out Alternative would not impact wetlands because there are no wetlands identified in the project area. As per the JTF-6 EA water resources section, several ephemeral unnamed washes occur in the western portion of the project corridor and would be crossed by the aesthetic fence under this alternative and is incorporated herein by reference (JTF-6 2004a). The pedestrian fence design would need to be modified in these areas. Verification of jurisdiction as WUS would be required from the United States Army Corps of Engineers (USACE) Albuquerque District, Regulatory Functions Branch. In addition, coordination would occur with the U.S. Section, International Boundary and Water Commission (USIBWC) to ensure compliance with applicable international water treaties. It is anticipated that most of these crossings would be authorized under either a Nationwide Permit (NWP) 3 or 14. Single crossings that would affect more than 0.1 acre, but less than 0.5 acre of WUS, would require a Pre-Construction Notification, assuming all other conditions for authorization under NWP 14 are satisfied. Coordination with the USACE Albuquerque District, as mentioned previously, would be required to determine the appropriate permit process to ensure compliance with Section 404 of the CWA. In the event that compensatory mitigation is required, a mitigation plan would be developed in cooperation with the USACE Albuquerque District. The fence design would allow for water flow during excessive rain events. In the remaining portion of the proposed corridor area, the installation of approximately 30 miles of pedestrian fence has the potential to alter natural sheetflow drainage patterns; however, proper fence design and stormwater retention/detention measures would be incorporated into the environmental design measures, as described in Section 6.0.

4.6.3 Water Quality

4.6.3.1 No Action Alternative

The No Action Alternative would have no impacts to water quality as no aesthetic fence would be constructed.

4.6.3.2 Proposed Action Alternative

Construction of approximately 6.8 miles of aesthetic fence would temporarily increase the potential contribution of suspended solids in stormwater runoff from construction activities; however, these effects would be similar to the construction activities for the JTDF-6 EA action. Water quality was discussed in the JTF-6 EA, and this discussion is incorporated herein by reference (JTF-6 2004a). JTF-6 stated that PVB construction would not cause water quality impacts to the region's surface or groundwater resources.

Under the Proposed Action Alternative, a SWPPP and a Notice of Intent (NOI) would be prepared and submitted to USEPA in order to obtain a Construction General Permit, and in accordance with the National Pollutant Discharge Elimination System (NPDES) permit. Implementation of the SWPPP and the BMPs identified in the SWPPP would reduce any short term impacts to water quality from suspended contaminants or sediments from construction activities. The Proposed Action Alternative would not violate Federal or state groundwater quality standards, and therefore, would not have significant impacts.

4.6.3.3 Full Build-out Alternative

Construction of the aesthetic fence under the Full Build-out Alternative would have similar types of impacts as the Proposed Action Alternative; however, the potential for erosion and sedimentation would be much greater due to the larger construction footprint and the fewer number of washes/arroyos in the approximate 6.8-mile corridor of the Proposed Action Alternative. However, a SWPPP and a NOI would be required prior to construction under this alternative. Implementation of the BMPs outlined in the SWPPP would reduce or eliminate erosion and downstream sedimentation and the consequential effects to water quality.

4.7 AIR QUALITY

4.7.1 No Action Alternative

No impacts are expected as the construction of aesthetic fence would not occur.

4.7.2 Proposed Action Alternative

No significant impact to air quality is anticipated, although, the proposed construction of approximately 6.8 miles of aesthetic fence would cause temporary and minor increases in air emissions from the use of construction equipment and the disturbance of soils while installing the

aesthetic fence. Air quality was discussed in the JTF-6 EA, and that discussion is incorporated herein by reference (JTF-6 2004a).

Under the Proposed Action Alternative, fugitive dust or PM-10 from disturbed soils and pollution from combustible emissions from construction equipment engines are expected to create temporary increases in air pollution in the area during the construction months of the project. Due to the short duration of the construction project, any impacts on ambient air quality are expected to be temporary and below PM-10 *de minimis* thresholds. Long term levels of fugitive dust in the project corridor would not increase significantly. BMPs, such as wetting construction sites for dust suppression, proper maintenance of equipment, and regional wind dispersal conditions would reduce temporary construction impacts. Because construction is not expected to cause or contribute to a violation of Federal or state ambient air quality standards, no significant impact to air quality is anticipated.

Calculations were performed to estimate the total air emissions from the new construction activities using standard construction equipment, such as drilling rigs, hole cleaners, generators, cement trucks, backhoes, cranes, and bulldozers, and the use of emission factors from USEPA approved emission model NONROAD6.2. (see Appendix B for model results). Fugitive dust calculations were made for soil disturbance while installing the fence using emission factors from Mid-Atlantic Regional Air Management Association (MARAMA 2006).

Assumptions were made regarding the type of equipment, 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. The assumptions, emission factors, and resulting calculations are presented in Appendix B. A summary of the total emissions is presented in Table 4-1. As can be seen from this table, the proposed construction activities do not exceed PM-10 *de minimis* thresholds and, thus, do not require a Conformity Determination.

Table 4-1. Total Air Emissions (tons/year) from Construction Activities for the Proposed Action Alternative vs. the *de minimis* Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)
Carbon Monoxide (CO)	40.20	NA
Volatile Organic Compounds (VOCs)	9.52	NA
Nitrous Oxides (NOx)	83.77	NA
Particulate Matter <10 micrometers (PM-10)	43.28	100
Particulate Matter <2.5 micrometers (PM-2.5)	14.19	NA
Sulfur Dioxide (SO_2)	10.19	NA

Source: 40 CFR 51.853

Impacts from combustible air emissions from Border Patrol traffic and commuting to work are expected to be the same before and after the proposed new fence installation. Construction workers would temporarily increase the combustible emissions in the air shed during their commute to and from work. Supplies would have to be delivered to the site by large delivery trucks. The emissions from supply trucks and workers commuting to work were calculated in the air emission analysis (Appendix B), and those emissions are included in Table 4-1.

During the construction of the proposed project, BMPs mentioned and the proper and routine maintenance of all vehicles and other construction equipment should 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 emissions. Air emissions from the proposed action would be temporary, and should not significantly impair air quality in the region.

4.7.3 Full Build-Out Alternative

The impacts of the 30-mile Full Build-out Alternative fence proposal would be similar to the air quality impacts described in the Proposed Action Alternative, except that the emissions would be greater because of the increase in the size and duration of the project. The emissions would still be well below PM-10 *de minimis* levels. The air quality impacts are expected to be short term and minor. Table 4-2 summarizes the estimated emissions from the Full Build-out Alternative. The calculations sheets are presented in Appendix B.

Table 4-2. Total Air Emissions (tons/year) from Construction Activities for Full Build-out Alternative vs. the *de minimis* Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)
Carbon Monoxide (CO)	75.60	NA
Volatile Organic Compounds (VOCs)	17.55	NA
Nitrous Oxides (NOx)	152.21	NA
Particulate Matter <10 micrometers (PM-10)	14.89	100
Particulate Matter <2.5 micrometers (PM-2.5)	13.01	NA
Sulfur Dioxide (SO_2)	18.46	NA

Source: 40 CFR 51.853

4.8 SOLID AND HAZARDOUS WASTES

4.8.1 No Action Alternative

Under the No Action Alternative, there would be no impacts to solid and hazardous wastes conditions within the project corridor as no construction of fence would occur.

4.8.2 Proposed Action Alternative

The Camino Real Landfill encroaches into the easternmost segment of the Proposed Action Alternative (near Border Monument 3 and Sunland Park); thus, coordination with the landfill operators and NMED would be required to alleviate any concerns with regards to any possible issues or conflicts with landfill operations during the installation of the easternmost segment of fence. As stated in the JTF-6 EA impacts to solid and hazardous waste could occur during construction of the PVBs; and a detailed discussion on the environmental design measures can be found in the JTF-6 EA, and is incorporated herein by reference (JTF-6 2004a).

Under the Proposed Action Alternative, care would be taken to avoid impacting the project area with hazardous substances (*e.g.,* anti-freeze, gasoline) associated with the construction efforts. During construction activities, fuels, oils, lubricants, and other hazardous materials would be used and although catch pans would be used when refueling, accidental spills could occur as a result of construction equipment maintenance procedures. A spill could result in potentially adverse impacts to on-site soils and threaten the health of wildlife, soils, water, and vegetation. However, the amount of fuel, lubricants, and oil at the construction site would be limited, and the equipment necessary to quickly contain any spills would be present when refueling.

4.8.3 Full Build-out Alternative

As in the Proposed Action Alternative, care would be taken during the construction of the Full Build-out Alternative to avoid impacting the project area with hazardous substances (*i.e.,* anti-freeze, gasoline) associated with the construction efforts; therefore, significant impacts to the public or the environment from hazardous materials are not anticipated. Additionally, as in the Proposed Action Alternative, coordination with the landfill operators and the NMED would alleviate any possible concerns with the installation of the easternmost segment of the proposed fence.

4.9 NOISE

4.9.1 No Action Alternative

Under the No Action Alternative, there would be no impacts to noise conditions within the project corridor as no construction of aesthetic fence would occur.

4.9.2 Proposed Action Alternative

The noise generated from the construction and installation of the proposed fence would come primarily from the use of heavy equipment. Noise from the construction of the proposed fence would be temporary and minor.

While most of the approximately 6.8 miles of fence is not near any sensitive receptors, the 1.07-mile easternmost segment of the proposed aesthetic fence would be within 1,800 feet of the residential neighborhoods of Sunland Park, New Mexico and Anapra, Mexico. Heavy duty trucks and construction equipment generate a noise level of approximately 80-85 dBA. Utilizing a noise attenuation model (CALTRAN 1998), noise attenuation to 65 dBA occurs at a distance of approximately 500 feet depending on climatic conditions, topography, vegetation, and man-made barriers. Noise levels for other types of construction equipment range from tractors and backhoes (70 to 85 dBA) to pumps and generators (65 to 80 dBA) (Bugliarello *et al*. 1976). The hills and distance between the residential neighborhood of Sunland Park and the project corridor would buffer the sensitive noise receptors in the neighborhoods from noises generated by construction equipment. The noise levels from construction equipment of 80-85 dBA would attenuate to background levels of 55-60 dBA by the time the noise reached the residential neighborhood in Sunland Park which is 1,800 feet to the north. Ambient noise conditions would return immediately upon completion of the construction activities.

The JTF-6 EA states that there would be no significant long term adverse impacts on the natural or human environment, and those discussions are incorporated herein by reference (JTF-6 2004a).

4.9.3 Full Build-out Alternative

The noise impacts from the Full Build-out Alternative would be similar to the Proposed Action Alternative and would, therefore, be temporary and minor. Construction activities would occur within 1,800 feet of residential areas of Sunland Park, New Mexico and Anapra, Mexico.

4.10 SOCIOECONOMICS

4.10.1 No Action Alternative

Under the No Action Alternative, no construction of fence would occur and IAs and smugglers would continue to increase costs to U.S. citizens due to criminal activities. Increased costs would be associated with apprehension, detention, incarceration of criminals, and indirectly in loss of property, illegal participation in government programs, and increased insurance costs.

4.10.2 Proposed Action Alternative

The Proposed Action Alternative would utilize OBP maintenance staff, JTF-N or National Guard units, or private contractors to construct the aesthetic fence; therefore, no effects on population, personal income, or housing would occur unless private contractors were used. In this scenario, a temporary increase in personal income may occur. Most materials and other project expenditures would also be obtained from outside the region, providing little or no temporary direct economic benefits. No population displacement is predicted to result from this action; therefore, there would be no direct impacts to housing in the region. No permanent or long-term socioeconomic impacts would be anticipated as a result of construction activity associated with the Proposed Action Alternative.

Environmental justice concerns and special risks to children related to construction activity may include safety, noise, pollutants, and hazardous materials. Children have physiological and behavioral characteristics that make them more vulnerable than adults to damage from environmental effects; therefore, evaluation of potential environmental exposures associated with the alternatives requires special consideration. Safety precautions to protect children in areas surrounding the work sites would include adequate measures to restrict access,

minimization of hazards associated with construction activities, and proper handling and disposal of hazardous materials. Such mitigation measures would serve to offset the potential for impacts to any age group, including children. Noise associated with construction would be intermittent and short in duration, and would not contribute any appreciable effect to the existing acoustic environment in the area. As the easternmost segment of the 6.8-mile proposed fence is near residential areas where children could be found, actions as outlined in Section 6.0 would be implemented to ensure that there are no environmental justice impacts or special risks to children associated with the Proposed Action Alternative.

4.10.3 Full Build-out Alternative

Personnel increases and construction activities under Full Build-out Alternative would be the same as under the Proposed Action Alternative, with the exception of the duration of induced spending in the surrounding area (3 years vs. 1 year). Any potential impacts from the construction would be easily absorbed into the broader economy of the ROI, which would essentially cause a short term increase in the local revenues for commercial establishments, trade centers, and retail sales as the result of purchases of supplies and rental equipment. In addition, to minimize any adverse affects near residential areas actions as outlined in Section 6.0 would be implemented to minimize any environmental justice impacts or special risks to children associated with the Full Build-out Alternative.

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SECTION 5.0
CUMULATIVE EFFECTS

5.0 CUMULATIVE EFFECTS

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. 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). This section continues and states that, "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

OBP has been conducting law enforcement actions along the border since its inception in 1924, and has continuously transformed its methods as new missions; IA 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 to soil, wildlife habitats, water quality, and noise. Beneficial effects, too, have also 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 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 CBP/OBP's environmental conservation measures, including environmental education and training of its agents, use of biological and archeological monitors, wildlife water systems, and restoration activities, adverse impacts due to future and on-going projects would be avoided or minimized. However, recent, on-going and reasonably foreseeable proposed projects will result in cumulative impacts. In particular, the SFA, mandates the construction of primary fence along the southwestern border. Within the next two years, 225 miles are scheduled to be completed in two phases. Phase I construction would occur in areas that have already been developed (*e.g.*, currently contains PVB or TVB) and thus, little or no additional environmental impacts would be expected. Phase II (of the first 225 miles of fence) would generally occur in more remote areas, and would inevitably result in cumulative impacts. Assuming that up to 150 foot corridor would be required for construction of the fence in these

areas; approximately 4,560 acres would be impacted in California, Arizona, New Mexico, and Texas by the construction of additional fence under the program of 225 miles of pedestrian fence. The final locations for the primary fence have not been determined yet; so these should be considered only as planning estimates.

The remaining fence locations are not known at this time and since funding has not provided to date, these fences are not expected to occur within the reasonably foreseeable future. Although these locations have not been identified as yet, it is anticipated that the fences would be constructed primarily in New Mexico and Texas, since that is where most of the gaps in border barriers occur. Construction of these fences would occur from 2010 through 2014, at a minimum. Assuming the same 150-wide construction corridor, the remaining fence would adversely affect up to 9,000 acres across the southwestern border.

A list of the past, on-going, and other proposed projects within the region surrounding the Santa Teresa Station's AO is presented below:

Sector Projects

Future projects are being planned by the OBP throughout the El Paso Sector.

- The El Paso Sector completed a study for TI in the New Mexico AO. A final programmatic EA was completed in October 2006, and documented impacts to approximately 1,262 acres.
- The OBP has currently identified two site-specific projects and begun the initial planning efforts for these projects. These two projects are (1) the installation of two 90-foot long "Jersey-type" concrete vehicle barriers under the Ysleta POE and (2) the construction of 12 individual, permanent vehicular gates at nine locations along the Rio Grande and irrigation ditch levees. Although the designs for these two projects have not been completed, and the impact area is not known at this time, both the concrete vehicle barriers and the permanent vehicular gates are located in previously disturbed, unvegetated areas, and would have a very small (*i.e*., less than 1 acre total) footprint. This project is proposed and is awaiting further action as of July 2007.
- The OBP is also planning several facilities projects in the El Paso Sector. These include the construction of new Border Patrol stations in the vicinity of Fort Hancock, Texas and Lordsburg, New Mexico, construction of a new El Paso Border Patrol Station and Sector Headquarters in El Paso, and construction of two forward operating bases, one in the Deming Station AO and the other in the Lordsburg Station AO. The approximate footprint for each forward operating base is 5 acres. The Ft. Hancock EA was finalized in December 2006, while the Lordsburg EA was finalized in July 2007.
- The OBP completed a study for the renovations of two checkpoints in Doña Ana County, New Mexico and one checkpoint near El Paso, Texas. The Supplemental EA would

reconfigure and enlarge the I-25 checkpoint by 11.75 acres while the I-10 checkpoint would be enlarged by 5.8 acres. The Ysleta checkpoint would be relocated to a new 7.1-acre site on U.S. Highway 62/180. A total of 24.65 additional acres would be acquired and potentially disturbed outside of the existing footprint at the three sites, plus 4.65 acres for a new truck separation lane at the I-10 Checkpoint. The final Finding of No Significant impact (FONSI) for the *Supplemental Environmental Assessment for the Construction/Renovation of Border Patrol Checkpoints near Las Cruces, New Mexico and El Paso, Texas* was signed on May 24, 2007.

- The OBP is preparing an EA for installation of lights, pedestrian fence and four bridges along 20 miles of the USIBWC levee between El Paso and the Fabens POE in the OBP Ysleta Station AO. All construction would take place in previously disturbed areas and impacts would be insignificant. The draft EA is expected to be released in August 2007.
- The OBP issued an EA for proposed TI within the Deming Station AO including patrol roads, PVB, pedestrian fence, and lighting. Impacts would occur, as proposed, to 382 acres. This proposed action is being supplemented to include the construction and routine maintenance of 3 miles of pedestrian fencing near the Columbus POE in lieu of PVBs.
- The Santa Teresa POE is proposed to become a major North American Free Trade Agreement (NAFTA) import/export facility for both rail and trucking traffic. Increased illegal traffic and the new NAFTA traffic would increase the need for improved border security and infrastructure (Rogers 2006).

In addition, the OBP 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 the potential IAs.

Plans by other agencies that would also affect the region's natural and human environment include various road improvements by the New Mexico Department of Transportation (NMDOT) and/or Doña Ana County. The majority of these projects would be expected to occur along existing transportation corridors and/or within previously disturbed sites. The magnitude of these effects would depend upon the length and width of the road right-of-way (ROW) and the extant conditions within and adjacent to the ROW.

State of Mexico Projects

The NMDOT has several road improvement projects scheduled for Doña Ana County in the next 5 years. However, the level of impacts would tend to be low, as the majority of the construction would be within existing ROW. The projects listed below are in the planning stage and potential impacts are unknown at this time. (NMDOT 2007)

- The Interstate (I)-10 Corridor Study - it will study and recommend improvements on I-10 between Las Cruces, New Mexico and the Texas State Line. This project consists of the reconstruction of the existing highway and other improvements to accommodate public transportation elements, including high commuter and commercial traffic. The I-10 Corridor Study is being prepared in three phases: Phase A includes an initial evaluation of a broad base of alternates; Phase B includes further engineering design of the potential alternates and concludes with a final recommendation; and Phase C includes the preparation of the environmental document in accordance with NEPA.
- I-25 Doña Ana Bridge (Exit 9) – NMDOT is working with Reiman Corporation on re-construction of the I-25 Dona Ana Bridge at exit 9. The project is complete with minor details pending. The cost of this project was $7.3 million, and is located in Doña Ana County just north of Las Cruces. Minor work continues under the bridge and on NM-320.

Current Doña Ana County projects as outlined in the county website include (Doña Ana County 2007):

- Future plans call for significant expansion of airport capabilities utilizing funds allocated by the U.S. Congress through the Federal Aviation Administration. Upon completion of the improvements, the Doña Ana County Airport at Santa Teresa will be able to accommodate large passenger and cargo jets, including DC-10 aircraft.
- The Doña Ana County Administrative Complex is currently under construction. This 154,000 square-foot, state-of-the-art facility will house most county departments and include the offices of the Third Judicial District Attorney.

In addition, projects are currently being planned by other Federal entities which could affect areas in use by OBP. CBP/OBP should maintain close coordination with these agencies to ensure that CBP/OBP activities do not conflict with other agency(s) policies or management plans. CBP will consult with applicable state and Federal agencies prior to performing any construction activities, and will coordinate operations so that it does not impact the mission of other agencies. The following is a list of projects other Federal agencies and tribes are conducting or have completed within the U.S.-Mexico border region.

Bureau of Land Management (BLM), Las Cruces NEPA Plans (BLM 2007)

- Supplement to Proposed Resource Management Plan Amendment / Final Environmental Impact Statement. Record of Decision (ROD), January 2005, and 35,790 acres.
- Proposed Resource Management Plan Amendment and Final Environmental Impact Statement for Federal Fluid Minerals Leasing and Development in Sierra and Otero Counties. ROD, January 2005, and 35,790 acres.
- McGregor Range Resource Management Plan Amendment / Environmental Impact Statement. ROD, May 2006, and 606,230 acres.

- Mimbres Resource Management Plan. ROD, December 1993, and 3 million acres of surface public land, and 4.1 million subsurface acres of Mimbres land.
- TriCounty Resource Management Plans and Environmental Impact Statement (EIS). Draft RMPs/EIS, mid 2007, 9.4 million acres.
- Alamogordo Regional Water Supply Project Environmental Impact Statement. EIS Scoping, October 2004.
- Rocky Claim Expansion Project Mine Plan of Operation and Closure/Closeout Plan. Public Comment period ended May 2006, and 20 acres.
- Copper Mountain South Pit Expansion Environmental Assessment. Final EA and FONSI, June 2004, and 15 acres.

USIBWC Rio Grande NEPA Plans (USIBWC 2007)

- Draft Environmental Assessment and Finding of No Significant Impact: Rio Grande Rectification Project, Flood Control Improvements International to Riverside Dam. Draft, public comments due May 2007, and 9.22 acres.
- Final Environmental Assessment Flood Control Improvements Lateral A/Retamal Dike Levee System. Final, March 2007, 4 acres for land use, 162 acres for bioresources.
- Final Environmental Assessment Alternatives for Improved Flood Control of Hidalgo Protection Levee System of 9/2005. Final, September 2005, and 37 acres.
- Lower Rio Grande Flood Control Project Brief w/ EIS. Final ROD, February 2004, and 34.5 mile reach.
- Rio Grande Canalization Project Brief w/ EIS and the 5/ 2004 River Management Plan. Final EIS ROD on-hold, August 2004.
- El Paso - Las Cruces Regional Sustainable Water Project with EIS. ROD, January 2001, 44,732 acres.
- Third Phase of the Binational Study Regarding the Presence of Toxic Substances in the Upper Portion of the Rio Grande/Rio Bravo between the U.S. and Mexico. Final, June 2004.
- Binational Study Regarding the Presence of Toxic Substances in the Rio Grande/Rio Bravo and its Tributaries along the Boundary Portion between the United States and Mexico. Final, September 1994.
- Second Phase of the Binational Study Regarding the Presence of Toxic Substances in the Rio Grande/Rio Bravo and its Tributaries along the Boundary Portion between the United States and Mexico. Final, April 1998.

5.1 PROPOSED ACTION ALTERNATIVE

A summary of the anticipated cumulative impacts relative to the Proposed Action (*i.e.*, construction of approximately 6.8 miles of aesthetic fence near the Santa Teresa POE) is

presented below. These discussions are presented for each of the resources described previously.

5.1.1 Land Use

A significant impact would occur if any action is inconsistent with adopted land use plans or action would substantially alter those resources required for, supporting or benefiting the current use. The Proposed Action would only affect approximately 8 acres, which have been previously disturbed. In addition, these actions would occur only within the Roosevelt Reservation, which was set aside specifically for border control actions. This action, therefore, is consistent with the authorized land use and, when considered with other potential alterations of land use, would not be expected to result in a significant cumulative adverse effect.

5.1.2 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. The proposed action and other OBP actions have not reduced prime farmland soils or agricultural production in the Santa Teresa proposed project corridor. Pre-and post-construction SWPPP measures would be implemented to control erosion. No inappropriate soil types are located in the project corridor that would present a safety risk. The impact of approximately 8 acres of disturbed soils, when combined with past and proposed projects in the region, would not be considered a significant cumulative adverse impact.

5.1.3 Biological Resources

Significance threshold for biological resources would include a substantial reduction in ecological process, 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 off-set or otherwise compensated. Removal of the approximately 8 acres of disturbed communities would result in insignificant cumulative impacts to vegetation communities and wildlife populations due to the vast amount of similar habitat located within and surrounding the project corridor and the juxtaposition of the project corridor with other disturbed and developed areas. The long term viability of species and communities in the project region would not be threatened. In addition, prior to construction, sites will be surveyed for migratory species, and appropriate mitigation measures would be implemented. This loss, when combined with other ground disturbing or development projects in

the project region, would not result in significant cumulative negative impacts on the region's biological resources.

5.1.4 Cultural Resources

The proposed action would potentially impact sites determined eligible for listing on the NRHP. Therefore, consultation will be required with the New Mexico State Historic Preservation Officer (SHPO) and any appropriate Tribal Historic Preservation officer (THPO). Through the use of avoidance and mitigation, impacts to cultural resources in the project corridor would be minimized, and this action, when combined with other existing and proposed projects in the region, would not result in significant cumulative impacts to historical properties. However, in general, other OBP projects in the region have had beneficial impacts to cultural resources through their identification and protection.

5.1.5 Aesthetics

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. Construction and maintenance of the proposed fence, when considered with existing and proposed developments in the surrounding area, would not result in a significant cumulative negative impact on the visual quality of the region. This is especially true since an aesthetically pleasing fence is proposed as the fence style under the Proposed Action Alternative.

5.1.6 Water Resources

The significance thresholds for water resources include any action that substantially depletes groundwater supplies or interferes with groundwater recharge, substantially alters drainage patterns, or results in the loss of WUS that cannot be compensated. No significant impact to water resources would occur as a result of the construction and maintenance of the proposed fence and road. The required SWPPP measures would reduce erosion and sedimentation during construction to negligible levels and would eliminate post-construction erosion and sedimentation from the site. The same measures would be implemented for other construction projects; therefore, cumulative impacts would not be significant.

5.1.7 Air Quality

Impacts to 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 and after the construction of the fence would be short term and minor. Although maintenance of the fence and construction road would result in cumulative impacts to the region's airshed, these impacts would not be considered significant, even when combined with the other proposed developments in the border region. Deterrence of and improved response time to IAs created by the construction of the fence and road would reduce off-road enforcement actions that are currently required by OBP agents.

5.1.8 Solid and Hazardous Wastes

Significant impacts would occur if an action creates a public hazard; 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.*, petroleum, oils and lubricants) would occur as a result of the construction and maintenance of the fence and road. No health of safety risks would be created by the proposed action. The effects of this proposed action, when combined with other on-going and proposed projects in the region, would not be considered a significant cumulative effect.

5.1.9 Noise

Actions would be considered to cause significant impacts if they permanently increase ambient noise levels over the 65 dBA. Most of the noise generated by the proposed action would occur during construction and, thus, would not contribute to cumulative impacts to ambient noise levels. Routine maintenance of the fence and road would result in slight temporary increases in noise levels, which would continue to sporadically occur over the long term. Potential sources of noise from other projects are not temporally or spatially within range of the Proposed Action Alternative to cause an increase in ambient noise levels above the 65 dBA range at the proposed sites. Thus, the noise generated by the construction and maintenance of the fence, when considered with the other existing and proposed projects in the region, would not be considered a significant cumulative adverse effect.

5.1.10 Socioeconomics

The significance threshold for socioeconomic conditions includes displacement or relocation of residences or commercial buildings; increases in long term demands to public services in excess of existing and projected capacities; and disproportionate impacts to minority and low income families. Construction of the proposed infrastructure would result in temporary, minor and beneficial impacts to the region's economy. No impacts to residential areas, population, or

minority or low-income families would occur. These effects, when combined with the other projects currently proposed or on-going projects within the region, would not be considered as significant cumulative impacts.

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SECTION 6.0
ENVIRONMENTAL DESIGN MEASURES

6.0 ENVIRONMENTAL DESIGN MEASURES

This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts to the human and natural environment. Many of these measures have been incorporated as standard operating procedures by the OBP on past projects. Environmental design measures are presented for each resource category that would be potentially affected. It should be emphasized that these are general mitigation measures and development of specific mitigation measures would be required for certain activities implemented under the action alternatives. The proposed mitigation measures would 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 finally, 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.

6.1 GENERAL CONSTRUCTION ACTIVITIES

BMPs will be implemented as standard operating procedures during all construction activities, and would include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted industry guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it will be unlikely for a major spill to occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*) will be used to absorb and contain the spill. Furthermore, any spill of petroleum liquids (*e.g.*, fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 will be included as part of the Spill Prevention, Control and Countermeasures Plan (SPCCP). A 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 on-site receptacles. Solid waste receptacles will be maintained, and solid waste will be collected and disposed of by a local waste disposal contractor.

6.2 SOILS

Vehicular traffic associated with the construction activities and operational support activities will remain on established patrol 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, 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 will be implemented to reduce erosion.

6.3 BIOLOGICAL RESOURCES

Construction equipment will be cleaned prior to entering and departing the project corridor to minimize the spread and establishment of non-native or invasive plant species. Soil disturbances in temporarily impacted areas will be re-vegetated with native plants. To minimize vegetation impacts, designated travel corridors will be marked with easily observed removable or biodegradable markers, and travel will be restricted to the travel corridor under most circumstances.

The MBTA requires that Federal agencies coordinate with the USFWS if a construction activity would result in the “take” of a migratory bird. If construction or clearing activities are scheduled during the nesting season (typically March 15-September 15), preconstruction surveys for migratory bird species will occur prior to the start of any construction activity to identify active nests. If construction activities would result in the “take” of a migratory bird, then coordination with the USFWS and NMDGF will occur, and applicable permits will be obtained prior to construction or clearing activities. Another mitigation measure that will be considered is to schedule all construction activities outside the nesting season, negating the requirement for nesting bird

surveys. To lessen noise impacts to wildlife communities, construction will only occur during daylight hours if at all possible.

6.4 CULTURAL RESOURCES

Prior to ground disturbing activities near sites determined to be eligible for listing on the NRHP, Section 106 consultation will be completed with the New Mexico SHPO and any appropriate THPO. The appropriate mitigation measures will be identified and implemented through the resulting Memorandum of Understanding. Although it may not be possible at one eligible site, for all others, the preferred mitigation measures will be to (1) avoid sites to the extent practicable, (2) recover data, and (3) monitor construction activities to ensure potential impacts are minimized.

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.

6.5 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. Because the impact area is greater than 1 acre, as part of the NPDES permit process, a SWPPP and NOI will be submitted to the USEPA Region 6 prior to the start of construction. Sedimentation and pollution of surface waters by fuels, oils and lubricants will be minimized through the implementation of the SWPPP. The construction of the pedestrian fence would alter natural drainage patterns; however, proper fence designs and stormwater retention/detention measures will be incorporated into the aesthetic fence construction to alleviate such issues.

6.6 AIR QUALITY

Mitigation measures will include suitable fencing to restrict traffic within the project corridor to reduce soil disturbance as mentioned in Section 6.2. Also, 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 fence construction corridor and the surrounding landscape. Additionally, all construction equipment and vehicles will be kept in good operating condition to minimize exhaust emissions.

6.7 SOLID AND HAZARDOUS WASTES

All other strategies for the management of hazardous substances and materials during construction activity will be followed as outlined under General Construction Activities in Section 6.1.

6.8 NOISE

During the construction phase, short term noise impacts are anticipated. All Occupational Safety and Health Administration requirements will be followed to protect construction personnel. To lessen noise impacts to the local residents and wildlife communities, construction will only occur during daylight hours if at all possible. All motor vehicles will be maintained to reduce the potential for vehicle-related noise.

6.9 SOCIOECONOMICS

When possible, materials and other project expenditures will predominantly be obtained through merchants in the local community. All construction activities will be limited to daylight hours, when possible, near residential areas. Safety buffer zones will be designated around all construction sites to ensure public health and safety.

SECTION 7.0
PUBLIC INVOLVEMENT

7.0 PUBLIC INVOLVEMENT

7.1 AGENCY COORDINATION

This chapter discusses consultation and coordination that has occurred during preparation of this document. Included are contacts that were made during the development of the action alternatives and writing of the EA. Formal and informal coordination were conducted with the following agencies:

- U.S. Fish and Wildlife Service (USFWS)
- New Mexico Department of Game and Fish (NMDGF)
- New Mexico Environment Department (NMED)
- U.S. Environmental Protection Agency (USEPA)
- Natural Resource Conservation Service (NRCS)
- U.S. Section, International Boundary and Water Commission (USIBWC)
- Bureau of Land Management (BLM)
- New Mexico State Historic Preservation Officer (SHPO)
- Native American Tribes
- County of Doña Ana
- Joint Task Force North (JTF-N)

7.2 PUBLIC REVIEW

The draft EA and draft FONSI will be made available for public review for 30 days on or near September 4, 2007. The Notice of Availability (NOA) will be published in the *El Paso Times* and the *Las Cruces Sun-News*, and will also be available electronically at http://esco.swf.usace.army.mil/. In addition, the draft EA and FONSI will be available at the Burges Regional Library in El Paso, Texas and at the Thomas Branigan Memorial Library in Las Cruces, New Mexico. Exhibit 7-1 is a copy of the NOA that will be published. All correspondence sent or received during the preparation of this EA is included in Appendix C.

Exhibit 7-1.

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED OBP SANTA TERESA STATION AESTHETIC FENCE
SANTA TERESA, NEW MEXICO

The public is hereby notified of the availability of the draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) prepared by the U.S. Customs and Border Protection and Office of Border Patrol for the construction of 6.8 miles of aesthetic fence beginning 1.11 miles west of the Santa Teresa Port of Entry (POE), and extending to the east of the POE along the U.S.-Mexico Border, for 5.7 miles on to the west end of Sunland Park. The aesthetic fence would be installed approximately 3 feet north of the border, within the Roosevelt Reservation. The draft EA and draft FONSI will be available for review at the Burges Regional Branch in El Paso, Texas and the Thomas Branigan Memorial Library in Las Cruces, New Mexico. It is also available for review and downloading from the U.S. Army Corps of Engineers, Fort Worth District's Internet web page at the following URL address: http://ecso.swf.usace.army.mil/.

For additional information or to provide comments, please contact, U.S. Army Corps of Engineers, Fort Worth District, ATTN: CESWF-PM-ECSO/McGregor, 819 Taylor Street, Room 3A28, Fort Worth, Texas 76102. Comments are due by October 5, 2007.

SECTION 8.0
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8.0 REFERENCES

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SECTION 9.0
ACRONYMS/ ABBREVIATIONS

9.0 ACRONYMS/ABBREVIATIONS

AO	Area of Operation
BEA	Bureau of Economic Analysis
BMP	Best Management Practices
BLM	Bureau of Land Management
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
CO	Carbon Monoxide
CWA	Clean Water Act
dB	Decibel
dBA	Decibel (a-weghted)
DHS	Department of Homeland Security
DNL	Day-night level
EO	Executive Order
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
GWQB	Ground Water Quality Bureau
I	Interstate
IA	Illegal Alien
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
JTF-6	Joint Task Force-Six
JTF-N	Joint Task Force-North
MBTA	Migratory Bird Treaty Act
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NM	New Mexico
NMAC	New Mexico Administrative Code
NMDA	New Mexico Department of Agriculture
NMDGF	New Mexico Department of Game and Fish
NMED	New Mexico Environment Department
NMDOT	New Mexico Department of Transportation
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
OBP	Office of Border Patrol

PCPI	Per Capita Personal Income
PL	Public Law
PM-10	Particulate Matter <10 micrometers
PM-2.5	Particulate Matter< 2.5 micrometers
POE	Port of Entry
PVB	Permanent Vehicle Barrier
ROD	Record of Decision
ROI	Region of Influence
ROW	Rights-of-way
SHPO	State Historic Preservation Officer
SPCCP	Spill Prevention, Control and Countermeasures Plan
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TI	Tactical Infrastructure
TPI	Total Personal Income
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USBP	U.S. Border Patrol
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USIBWC	U.S. Section, International Boundary and Water Commission
VRM	Visual Resource Management
WCA	Wildlife Conservation Act
WQCC	Water Quality Control Commission
WUS	Waters of the U.S.

SECTION 10.0
LIST OF PREPARERS

10.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this EA.

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Patience E. Patterson, RPA	USACE, Ft. Worth District	Archeology	30 years Professional Archeologist/Cultural Resource Manager	Cultural resources review
Charles McGregor	USACE, Fort Worth District, AERC	NEPA	10 years Environmental Management and Review	ECSO Project Manager, EA review and coordination
Roy Dahlstrom	Office of Border Patrol	Law Enforcement	11 years Law Enforcement	EA technical review
Steve Oivanki	Gulf South Research Corporation	Geology/Environmental Assessment	20 years of environmental assessment and remediation	EA review
Eric Webb, Ph.D.	Gulf South Research Corporation	Ecology/Wetlands	15 years experience in natural resources and NEPA studies	EA technical review
Chris Ingram	Gulf South Research Corporation	Biology/ Ecology	25 years EA/EIS studies	Project Coordinator/EA technical review
Denise Rousseau Ford	Gulf South Research Corporation	Environmental Engineering	Over 15 years of environmental experience	Project Manager
John Lindemuth	Gulf South Research Corporation	Archaeology	15 years professional archaeologist/cultural resources	EA review (Cultural Resources)
Maria Reid	Gulf South Research Corporation	Environmental Studies	5 years NEPA and natural resources studies	EA preparation (biological resources)
Steve Kolian	Gulf South Research Corporation	Water and Air Quality	10 years experience in environmental science	EA preparation (Air and Noise) and EA review
Sharon Newman	Gulf South Research Corporation	GIS/graphics	12 years GIS/graphics experience	GIS/graphics
Shanna McCarty	Gulf South Research Corporation	Forestry	2 years environmental studies	EA preparation (Socioeconomics and Cultural)

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APPENDIX A
Protected and Noxious Species List

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for New Mexico:

Counties Selected: Dona Ana

Select one or more counties from the following list to view a county list:

Bernalillo
Catron
Chaves
Cibola
Colfax

View County List

Dona Ana County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
bald eagle	*Haliaeetus leucocephalus*	Birds	AD, T				P
least tern	*Sterna antillarum*	Birds	E				P
Mexican spotted owl	*Strix occidentalis lucida*	Birds	T				P
northern aplomado falcon	*Falco femoralis septentrionalis*	Birds	E				P
Rio Grande silvery minnow	*Hybognathus amarus*	Fishes	E				P
Sneed pincushion cactus	*Coryphantha sneedii var. sneedii*	Flowering Plants	E				P
southwestern willow flycatcher	*Empidonax traillii extimus*	Birds	E				P
yellow-billed Cuckoo	*Coccyzus americanus*	Birds	C				P

Biota Information System Of New Mexico

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Database Query

Your search terms were as follows:

County Name	Status
Dona Ana	State NM: Endangered State NM: Threatened

22 species returned.

Taxonomic Group	# Species	Taxonomic Group	# Species
Birds	18	Molluscs	1
Mammals	3		

Click the up- or down-arrows next to the column headers to sort the results.

Common Name	Scientific Name	County	Status
Black-Hawk, Common	Buteogallus anthracinus anthracinus (NM)	Dona Ana	State NM: Threatened
Bunting, Varied	Passerina versicolor versicolor (NM);dickeyae (NM)	Dona Ana	State NM: Threatened
Cormorant, Neotropic	Phalacrocorax brasilianus	Dona Ana	State NM: Threatened
Crane, Whooping	Grus americana	Dona Ana	State NM: Endangered
Eagle, Bald	Haliaeetus leucocephalus alascanus (NM)	Dona Ana	State NM: Threatened
Falcon, Aplomado	Falco femoralis septentrionalis (NM)	Dona Ana	State NM: Endangered
Falcon, Peregrine	Falco peregrinus anatum	Dona Ana	State NM: Threatened
Flycatcher, Willow, SW.	Empidonax traillii extimus	Dona Ana	State NM: Endangered
Ground-dove, Common	Columbina passerina pallescens (NM)	Dona Ana	State NM: Endangered
Hummingbird, Broad-billed	Cynanthus latirostris magicus (NM)	Dona Ana	State NM: Threatened
Hummingbird, Costa's	Calypte costae	Dona Ana	State NM: Threatened
Hummingbird, Violet-crowned	Amazilia violiceps ellioti (NM)	Dona Ana	State NM: Threatened
Nightjar, Buff-collared	Caprimulgus ridgwayi ridgwayi (NM)	Dona Ana	State NM: Endangered
Pelican, Brown	Pelecanus occidentalis carolinensis (NM)	Dona Ana	State NM: Endangered
Sparrow, Baird's	Ammodramus bairdii	Dona Ana	State NM: Threatened
Tern, Least	Sterna antillarum athalassos	Dona Ana	State NM: Endangered

	(NM)		
Vireo, Bell's	Vireo bellii arizonae (NM,AZ);medius (NM)	Dona Ana	State NM: Threatened
Vireo, Gray	Vireo vicinior	Dona Ana	State NM: Threatened
Bat, Spotted	Euderma maculatum	Dona Ana	State NM: Threatened
Chipmunk, Colorado, Organ Mtns.	Neotamias quadrivittatus australis (NM)	Dona Ana	State NM: Threatened
Sheep, Bighorn, Desert	Ovis canadensis mexicana (endangered pops)	Dona Ana	State NM: Endangered
Talussnail, Dona Ana	Sonorella todseni	Dona Ana	State NM: Threatened

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USDA United States Department of Agriculture
Natural Resources Conservation Service

NRCS | PLANTS Database

Invasive and Noxious Weeds

New Mexico State-listed Noxious Weeds

35 records returned

Noxious weeds that are synonyms are indented beneath the current PLANTS accepted name.

Office of the Director/Secretary. 1998. *New Mexico noxious weed list* (http://nmdaweb.nmsu.edu/DIVISIONS/APR/weed.html, 20 October 2003). New Mexico Department of Agriculture.

Symbol	Scientific Name	Noxious Common Name	State Weed Status†	U.S. Nativity*
ACRE3	*Acroptilon repens* (L.) DC.	Russian knapweed	CBW	I
AECY	*Aegilops cylindrica* Host	jointed goatgrass	CCW	I
ALMA12	*Alhagi maurorum* Medik.			I
ALPS3	*Alhagi pseudalhagi* (Bieb.) Desv. ex B. Keller & Schaparenko	camelthorn	CAW	
ASFI2	*Asphodelus fistulosus* L.	onionweed	CAW	I
CADR	*Cardaria draba* (L.) Desv.	hoary cress	CAW	I
CANU4	*Carduus nutans* L.	musk thistle	CBW	I
CECA2	*Centaurea calcitrapa* L.	purple starthistle	CAW	I
CEDI3	*Centaurea diffusa* Lam.	diffuse knapweed	CAW	I
CEME2	*Centaurea melitensis* L.	Malta starthistle	CBW	I
CESO3	*Centaurea solstitialis* L.	yellow starthistle	CAW	I
CESTM	*Centaurea stoebe* L. ssp. *micranthos* (Gugler) Hayek			I
CEMA4	*Centaurea maculosa* auct. non Lam. [misapplied]	spotted knapweed	CAW	
CIAR4	*Cirsium arvense* (L.) Scop.	Canada thistle	CAW	I
CIVU	*Cirsium vulgare* (Savi) Ten.	bull thistle	CBW	I
COMA2	*Conium maculatum* L.	poison hemlock	CBW	I
COAR4	*Convolvulus arvensis* L.	field bindweed	CCW	I
DIFU2	*Dipsacus fullonum* L.	teasel	CBW	I
DRAR7	*Drymaria arenarioides* Humb. & Bonpl. ex J.A. Schultes [excluded]	alfombrilla	CAW	XU
ELAN	*Elaeagnus angustifolia* L.	Russian olive	CCW	I
EUES	*Euphorbia esula* L.	leafy spurge	CAW	I
HAGL	*Halogeton glomeratus* (Bieb.) C.A. Mey.	halogeton	CBW	I
HYVE3	*Hydrilla verticillata* (L. f.) Royle	hydrilla	CAW	I
HYNI	*Hyoscyamus niger* L.	black henbane	CAW	I
ISTI	*Isatis tinctoria* L.	dyer's woad	CAW	I
LELA2	*Lepidium latifolium* L.	perennial pepperweed	CAW	I
LIDAD	*Linaria dalmatica* (L.) P. Mill. ssp. *dalmatica*			I
LIGED	*Linaria genistifolia* (L.) P. Mill. ssp. *dalmatica*	Dalmatian toadflax	CAW	

	(L.) Maire & Petitm.			
LIVU2	*Linaria vulgaris* P. Mill.	yellow toadflax	CAW	I
LYSA2	*Lythrum salicaria* L.	purple loosestrife	CAW	I
MYSP2	*Myriophyllum spicatum* L.	Eurasian watermilfoil	CAW	I
ONAC	*Onopordum acanthium* L.	Scotch thistle	CAW	I
PEHA	*Peganum harmala* L.	African rue	CBW	I
TAMAR2	*Tamarix* L.	saltcedar	CCW	
ULPU	*Ulmus pumila* L.	Siberian elm	CCW	I

†Code	Weed Status
CAW	Class A noxious weed
CBW	Class B noxious weed
CCW	Class C noxious weed

*Code	U.S. Nativity
I	Introduced
XU	Cultivated, or not in the U.S.

Additional information about noxious plants in this state can be found at:

- NM-Weed Information and Identification
- New Mexico Cooperative Extension Service
- New Mexico Department of Agriculture
- New Mexico Harmful Plant Act
- New Mexico Seed Law
- Southwest Exotic Plant Information Clearinghouse

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APPENDIX B
Air quality calculations

CALCULATION SHEET-COMBUSTABLE EMISSIONS-6.79 MILE FENCE

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	16	160	1536000
Diesel Road Compactors	0	100	16	160	0
Diesel Dump Truck	0	300	16	160	0
Diesel Excavator	0	300	16	160	0
Diesel Hole Cleaners/Trenchers	2	175	16	160	896000
Diesel Bore/Drill Rigs	2	300	16	160	1536000
Diesel Cement & Mortar Mixers	3	300	16	160	2304000
Diesel Cranes	2	175	16	160	896000
Diesel Graders	0	300	16	160	0
Diesel Tractors/Loaders/Backhoes	2	100	16	160	512000
Diesel Bull Dozers	2	300	16	160	1536000
Diesel Front End Loaders	2	300	16	160	1536000
Diesel Fork Lifts	3	100	16	160	768000
Diesel Generator Set	6	40	16	160	614400

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-6.79 MILE FENCE

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.745	3.504	9.293	0.694	0.677	1.253	907.272
Diesel Road Paver	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Dump Truck	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Excavator	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Hole Cleaners\Trenchers	0.504	2.409	5.737	0.454	0.434	0.731	529.045
Diesel Bore/Drill Rigs	1.016	3.876	12.103	0.846	0.829	1.236	896.608
Diesel Cement & Mortar Mixers	1.549	5.890	18.484	1.219	1.193	1.853	1344.913
Diesel Cranes	0.434	1.284	5.648	0.336	0.326	0.721	523.515
Diesel Graders	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Tractors/Loaders/Backhoes	1.044	4.632	4.074	0.773	0.750	0.536	389.935
Diesel Bull Dozers	0.609	2.336	8.057	0.559	0.542	1.253	907.780
Diesel Front End Loaders	0.643	2.624	8.463	0.592	0.576	1.253	907.611
Diesel Aerial Lifts	1.676	6.568	7.245	1.176	1.143	0.804	584.649
Diesel Generator Set	0.819	2.546	4.042	0.494	0.481	0.548	397.643
Total Emissions	**9.039**	**35.669**	**83.145**	**7.144**	**6.951**	**10.187**	**7388.970**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-SUMMARY OF EMISSIONS-6.79 MILE FENCE

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO_2
Combustable Emissions	9.04	35.67	83.14	7.14	6.95	10.19
Construction Site-fugitive PM-10	NA	NA	NA	36.12	7.22	NA
Construction Workers Commuter & Trucking	0.48	4.53	0.62	0.01	0.01	NA
Total emissions	9.52	40.20	83.77	43.28	14.19	10.19
De minimis threshold	NA	NA	NA	100.00	NA	NA

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-6.79 MILE FENCE

Construction WorkerPersonal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	120	10	10	0.22	0.26	0.47
CO	12.4	15.7	120	120	10	10	1.97	2.49	4.46
NOx	0.95	1.22	120	120	10	10	0.15	0.19	0.34
PM-10	0.0052	0.0065	120	120	10	10	0.00	0.00	0.00
PM 2.5	0.0049	0.006	120	120	10	10	0.00	0.00	0.00
							-		

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	120	2	2	0.00	0.01	0.01
CO	1.32	3.21	60	120	2	2	0.02	0.05	0.07
NOx	4.97	12.6	60	120	2	2	0.08	0.20	0.28
PM-10	0.12	0.33	60	120	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	120	2	2	0.00	0.01	0.01

OBP Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	0	0	0	-	0.00	-
CO	12.4	15.7	60	0	0	0	-	0.00	-
NOx	0.95	1.22	60	0	0	0	-	0.00	-
PM-10	0.0052	0.0065	60	0	0	0	-	0.00	-
PM 2.5	0.0049	0.006	60	0	0	0	-	0.00	-

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.
Fleet Charactorization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

CALCULATION SHEET-FUGITIVE DUST-3.29 MILE FENCE

Fugitive Dust Emissions at New Construction Site.					
Construction Site	**Emission Factor tons/acre/month (1)**	**Total Area-Construction Site/month**	**Months/yr**	**Total PM-10 Emissions tns/yr**	**Total PM-2.5 (2)**
Fugitive Dust Emissions	0.11	46.91	7	36.12	7.22

1. Mid-Atlantic Regional Air Management Association (MARAMA). Fugitive Dust-Construction Calculation Sheet can be found online at: http://www.marama.org/visibility/Calculation_Sheets/. MRI= Midwest Research Institute, Inventory of Agricultural Tiling, Unpaved Roads, Airstrips and construction Sites., prepared for the U.S. EPA, PB 238-929, Contract 68-02-1437 (November 1977)

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2006).

Coastruction Site Area	**Demension (ft)**			
Proposed Prioject	**Length**	**Width**	**Units**	**Total Acres**
New Construction Area-permanent	35,851	10	1	8.23
New Construction Area-construction	35,851	57	1	46.91
Total				**46.91**

Note: this area is

Conversion Factors	**Miles to feet**	**Sq ft to Acres**	**Acres to Sq ft**	**Sq ft in 0.5 acres**
	5280	0.000022957	43560	21780

Assumptions	**Sections/day**	**Length of Section (ft)**	**Length/day (ft)**	**Days/Month**	**Length/Month (ft)**
Fencing installed per day (ft)	22	10	220	24	5280
Length of fence/yr (miles)	6.79				

CALCULATION SHEET-COMBUSTABLE EMISSIONS-29.9 MILE FENCE

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	16	290	2784000
Diesel Road Compactors	0	100	16	290	0
Diesel Dump Truck	0	300	16	290	0
Diesel Excavator	0	300	16	290	0
Diesel Hole Cleaners/Trenchers	2	175	16	290	1624000
Diesel Bore/Drill Rigs	2	300	16	290	2784000
Diesel Cement & Mortar Mixers	3	300	16	290	4176000
Diesel Cranes	2	175	16	290	1624000
Diesel Graders	0	300	16	290	0
Diesel Tractors/Loaders/Backhoes	2	100	16	290	928000
Diesel Bull Dozers	2	300	16	290	2784000
Diesel Front End Loaders	2	300	16	290	2784000
Diesel Fork Lifts	3	100	16	290	1392000
Diesel Generator Set	6	40	16	290	1113600

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-29.9 MILE FENCE

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	1.350	6.351	16.843	1.258	1.227	2.270	1644.431
Diesel Road Paver	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Dump Truck	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Excavator	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Hole Cleaners\Trenchers	0.913	4.367	10.398	0.823	0.787	1.324	958.893
Diesel Bore/Drill Rigs	1.841	7.026	21.936	1.534	1.503	2.240	1625.103
Diesel Cement & Mortar Mixers	2.807	10.677	33.502	2.209	2.163	3.359	2437.654
Diesel Cranes	0.787	2.327	10.237	0.608	0.591	1.306	948.871
Diesel Graders	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Tractors/Loaders/Backhoes	1.892	8.396	7.384	1.401	1.360	0.972	706.758
Diesel Bull Dozers	1.104	4.234	14.604	1.012	0.982	2.270	1645.351
Diesel Front End Loaders	1.166	4.755	15.340	1.074	1.043	2.270	1645.044
Diesel Aerial Lifts	3.037	11.904	13.131	2.132	2.071	1.457	1059.676
Diesel Generator Set	1.485	4.614	7.326	0.896	0.871	0.994	720.727
Total Emissions	**16.382**	**64.649**	**150.700**	**12.948**	**12.599**	**18.464**	**13392.509**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-SUMMARY OF EMISSIONS-29.9 MILE FENCE

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO_2
Combustable Emissions	16.38	64.65	150.70	12.95	12.60	18.46
Construction Site-fugitive PM-10	NA	NA	NA	1.92	0.38	NA
Construction Workers Commuter & Trucking	1.17	10.95	1.51	0.02	0.02	NA
Total emissions	17.55	75.60	152.21	14.89	13.01	18.46
De minimis threshold	NA	NA	NA	100.00	NA	NA

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-29.9 MILE FENCE

Construction WorkerPersonal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	290	10	10	0.52	0.62	1.14
CO	12.4	15.7	120	290	10	10	4.76	6.02	10.78
NOx	0.95	1.22	120	290	10	10	0.36	0.47	0.83
PM-10	0.0052	0.0065	120	290	10	10	0.00	0.00	0.00
PM 2.5	0.0049	0.006	120	290	10	10	0.00	0.00	0.00
							-		

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	290	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	290	2	2	0.05	0.12	0.17
NOx	4.97	12.6	60	290	2	2	0.19	0.48	0.67
PM-10	0.12	0.33	60	290	2	2	0.00	0.01	0.02
PM 2.5	0.13	0.36	60	290	2	2	0.00	0.01	0.02

OBP Commute to New Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	0	0	0	-	0.00	-
CO	12.4	15.7	60	0	0	0	-	0.00	-
NOx	0.95	1.22	60	0	0	0	-	0.00	-
PM-10	0.0052	0.0065	60	0	0	0	-	0.00	-
PM 2.5	0.0049	0.006	60	0	0	0	-	0.00	-

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.
Fleet Charactorization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

CALCULATION SHEET-FUGITIVE DUST-20 MILE FENCE

Fugitive Dust Emissions at New Construction Site.					
Construction Site	**Emission Factor tons/acre/month (1)**	**Total Area-Construction Site/month**	**Months/yr**	**Total PM-10 Emissions tns/yr**	**Total PM-2.5 (2)**
Fugitive Dust Emissions	0.11	1.45	12	1.92	0.38

1. Mid-Atlantic Regional Air Management Association (MARAMA). Fugitive Dust-Construction Calculation Sheet can be found online at: http://www.marama.org/visibility/Calculation_Sheets/. Midwest Research Institute, (MRI) 1996. Improvement of Specific Emission Factors (BACM Project No. 1) Prepared for South Coast Air Quality Management District. SCAQMD Contract 95040, Diamond Bar, CA. March 1996.

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2006).

Coastruction Site Area	**Demension (ft)**			
Proposed Prioject	**Length**	**Width**	**Units**	**Total Acres**
New Construction Area	5,280	12	1	1.45
New Construction Area	20	20	0	0.00
Total				**1.45**

Conversion Factors	**Miles to Feet**	**Acres to sq ft**	**Sq ft to acres**	**Sq ft in 0.5 acres**
	5280	0.000022957	43560	21780

Assumptions	**Sections/day**	**Length of Section (ft)**	**Length/day (ft)**	**Days/yr**	**Length/yr (ft)**	**Miles/yr**
Fencing installed per day (ft)	22	10	220	290	63800	12.08

Assumptions	**Sections/day**	**Length of Section (ft)**	**Length/day (ft)**	**Days/Month**	**Length/Month (ft)**	**Miles/Month**
Fencing installed per day (ft)	22	10	220	24	5280	1.00
Length of fence/yr (miles)	12.08					

Coastruction Site Area	**Demension (ft)**			
Proposed Prioject	**Length**	**Width**	**Units**	**Total Acres**

CALCULATION SHEET-FUGITIVE DUST-20 MILE FENCE

New Construction Area-permanent	158,400	10	1	36.36
New Construction Area-temporary	158,400	57	1	207.27
Total				**243.64**
Total Length of of Fence	30			

APPENDIX C
Correspondence

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.3 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector

Bureau of Land Management
Las Cruces District Office
ATTN: Mr. Mathew Craddock
1800 Marquess
Las Cruces, NM 88005

Dear Mr. Craddock:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

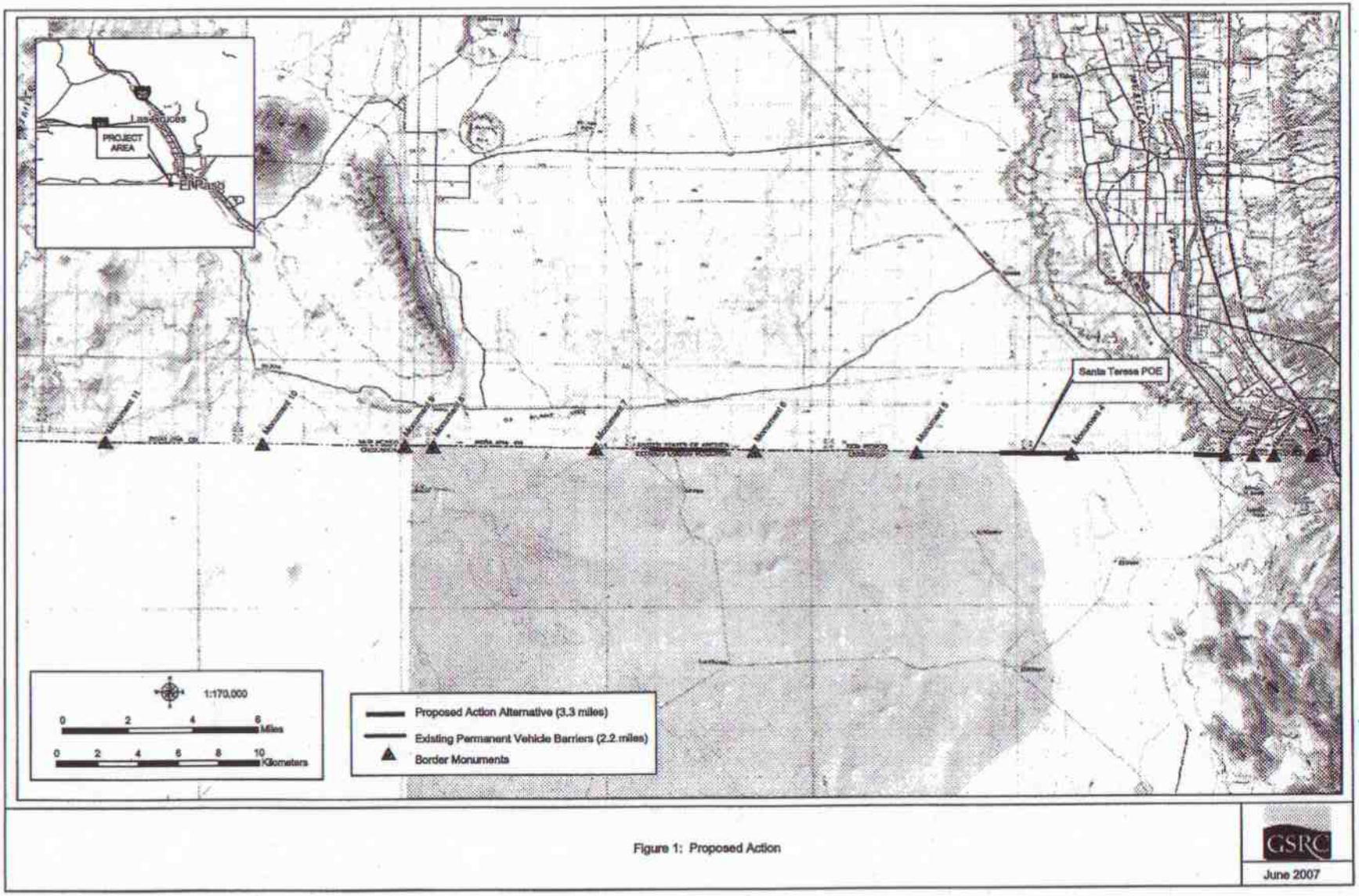

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.3 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector

New Mexico Department of Game and Fish
Conservation Services Division
ATTN: Ms. Lisa Kirkpatrick
P.O. Box 25112
Santa Fe, NM 87504

Dear Ms. Kirkpatrick:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have

any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

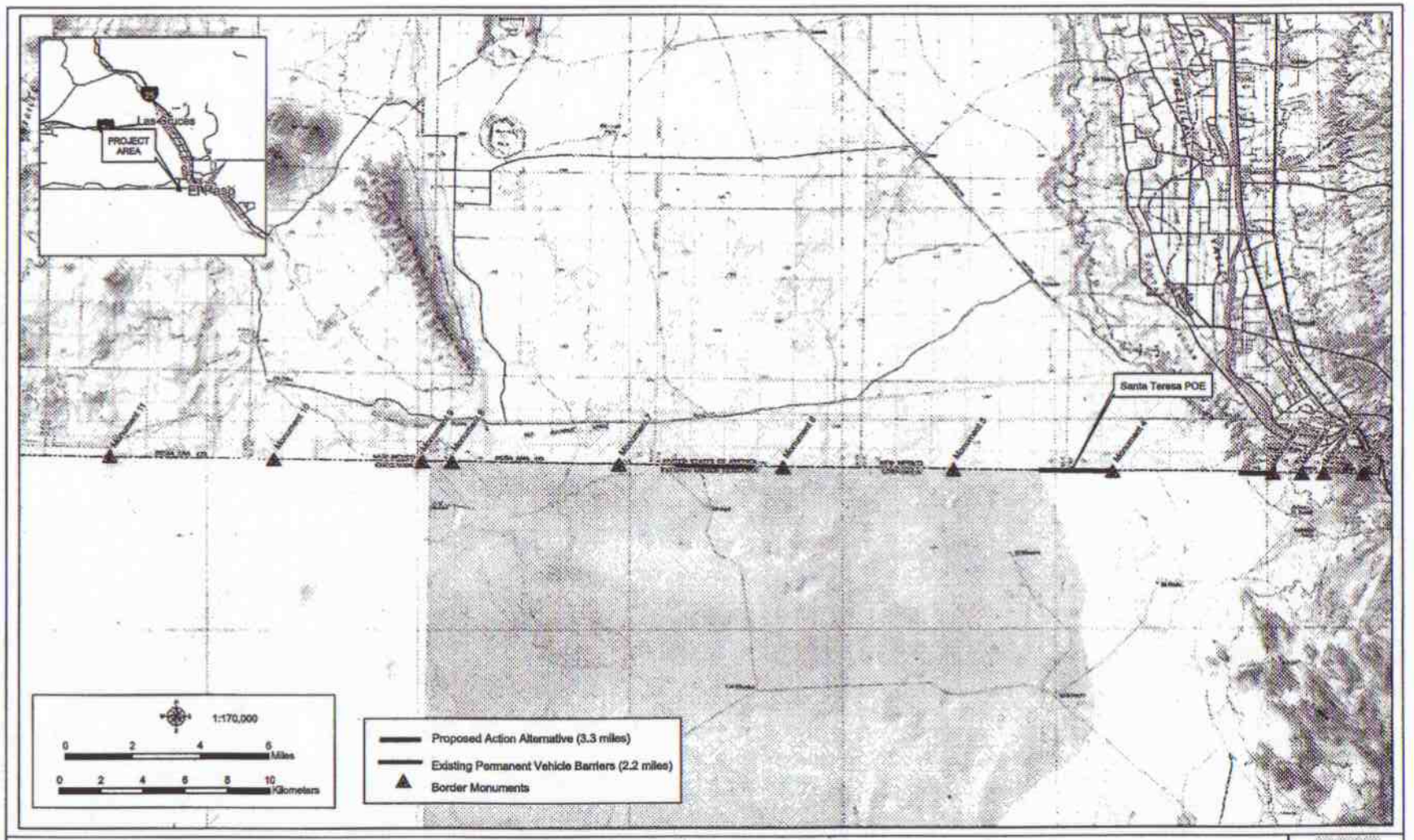

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.3 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector

New Mexico Environmental Department
Office of the Secretary
ATTN: Mr. Ron Curry
1190 St. Francis Drive
Suite N4050
Santa Fe, NM 87505

Dear Mr. Curry:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

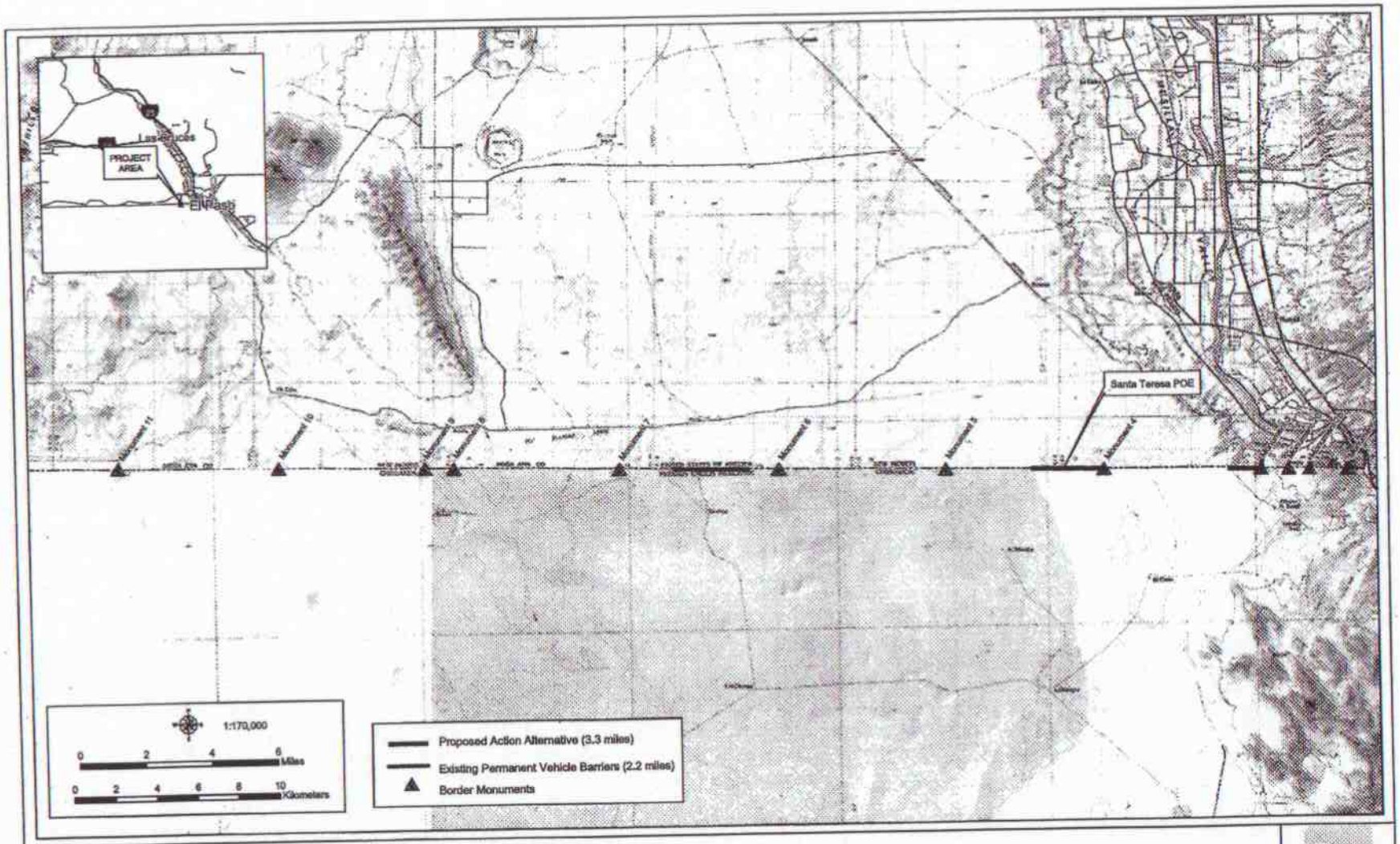

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.3 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector

U.S. Fish and Wildlife Service
New Mexico Ecological Services
ATTN: Field Supervisor
2105 Osuna NE
Albuquerque, NM 87113

Dear Field Supervisor:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have

any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

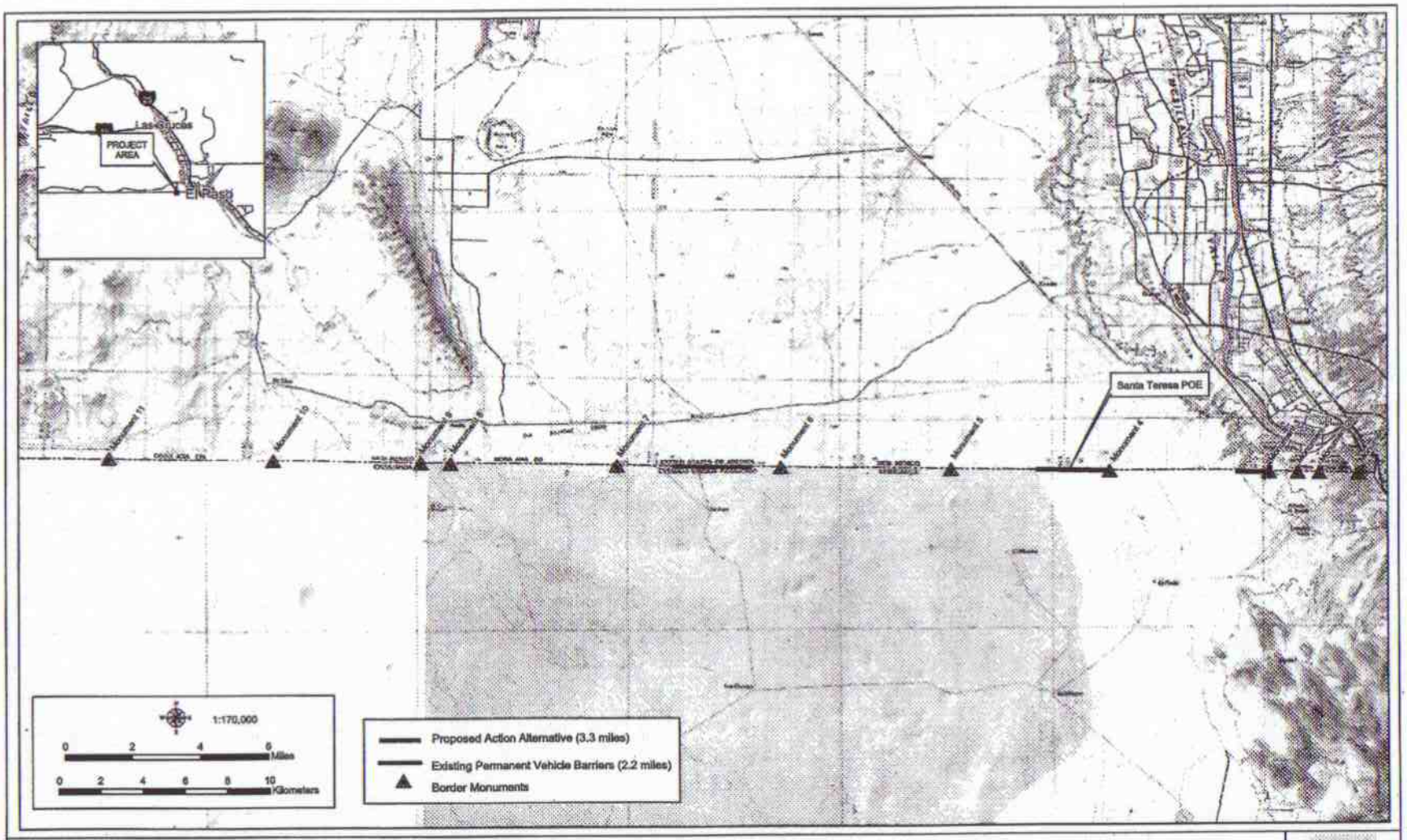

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.6 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector, New Mexico

International Boundary and Water Commission
United States Section
ATTN: Mr. Doug Echlin
4171 North Mesa St., C-130
El Paso, TX 79902

Dear Mr. Echlin:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.6 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.6 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.6 miles of border fence. The proposed border fence would at the Texas-New Mexico State line and extend approximately 3.6 miles to the east. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have

any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

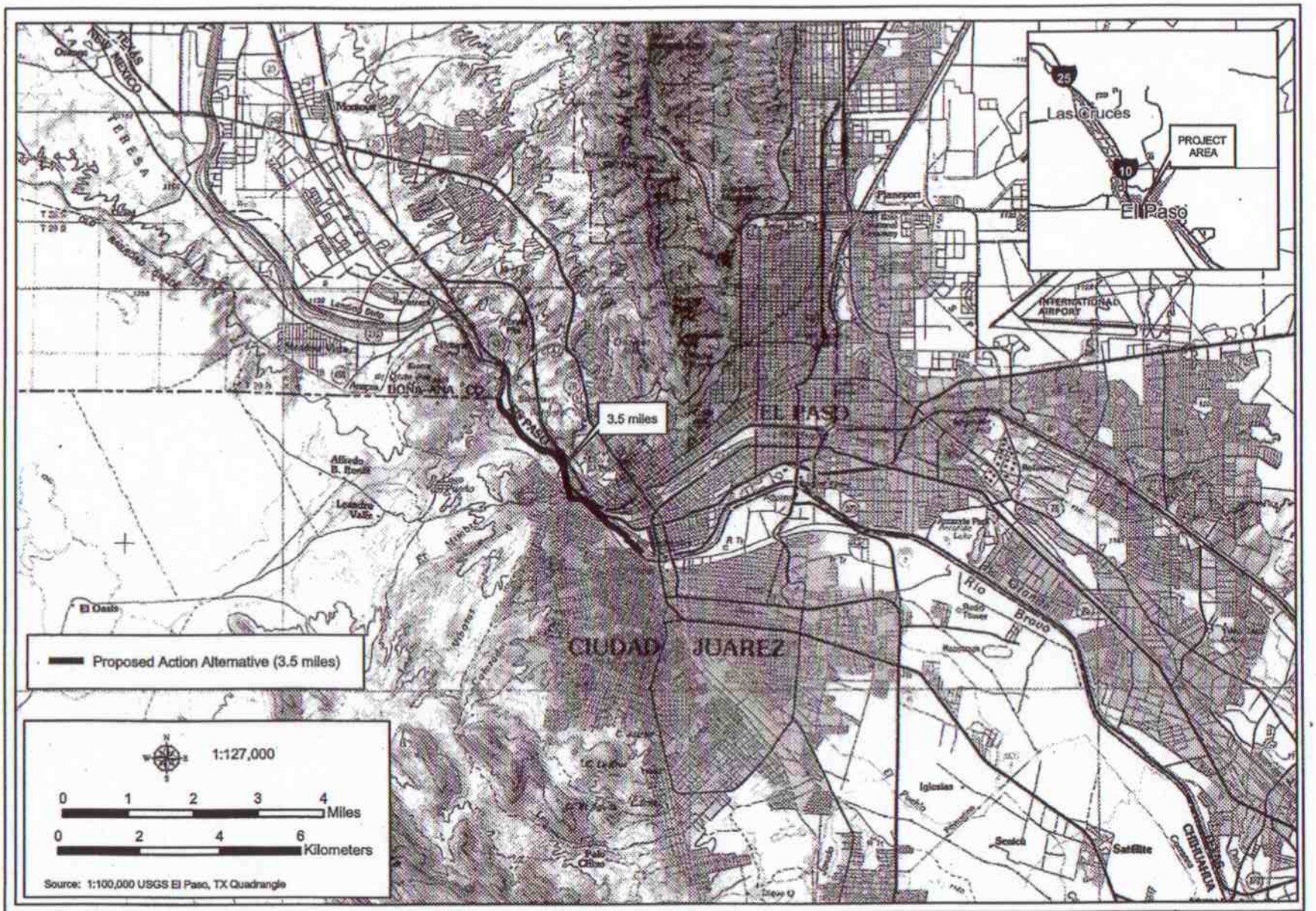

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

June 4, 2007

Engineering and Construction Support Office

SUBJECT: Environmental Assessment for Proposed Installation of 3.3 miles of Pedestrian Fence along the International Border near Santa Teresa, New Mexico, Office of Border Patrol El Paso Sector

International Boundary and Water Commission
United States Section
ATTN: Mr. Richard Galindo
504 South Miranda Street
Las Cruces, NM 88001

Dear Mr. Galindo:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the approximate 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute U.S.G.S. quadrangles identifying the possible project site.

We are currently in the process of gathering the most current information available regarding Federally and state listed species, cultural resources, as well as other sensitive resources potentially occurring within the potential project area. We respectfully request that your agency provide any information regarding those resources and]/or issues that you believe may be affected.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Charles McGregor of my staff at (817) 886-1585 or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector at (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

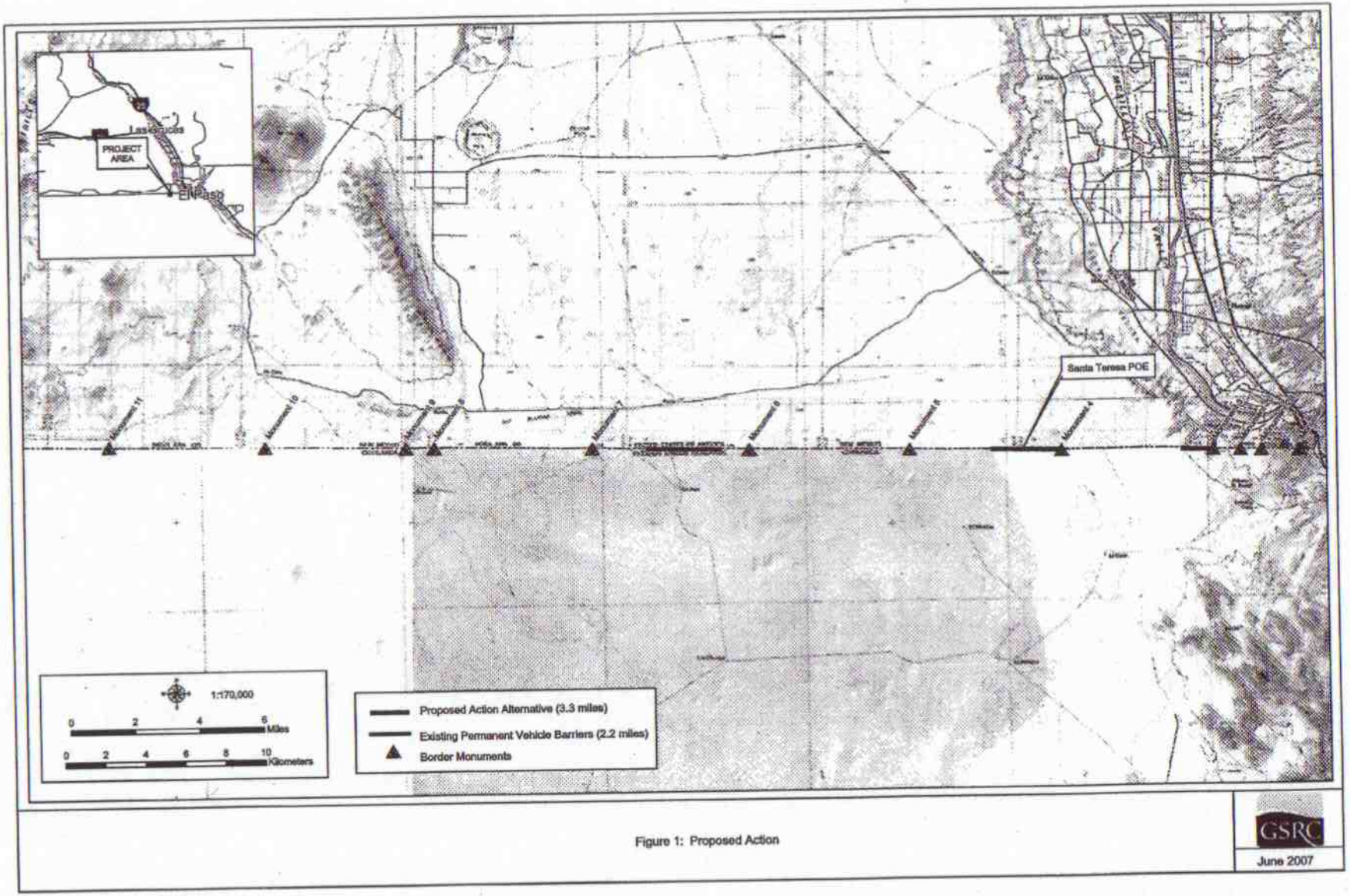

Figure 1: Proposed Action

GSRC

June 2007

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

81393

June 5, 2007

Engineering and Construction Support Office

SUBJECT: Section 106 Compliance and an Environmental Assessment for the Office of Border Patrol Santa Teresa Station Fence Project, Office of Border Patrol El Paso Sector, Santa Teresa, New Mexico

Honorable Wallace Coffey, Chairman
Comanche Nation
ATTN: Ms. Ruth Toahty, Cultural Resources Compliance
7 Miles North of Lawton on H.E. Bailey Turnpike,
Medicine Park Exit
Lawton, Oklahoma 73009

Dear Chairman Coffey:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the SEA does not necessarily mean the 3.6 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute USGS quadrangle identifying the possible project site.

A cultural resources survey of the project area was performed in February 2003 in support of the JTF-6 PVB project (see *A Cultural Resource Survey Along the United State-Mexico International Border, Doña Ana County, New Mexico* April 2003 and *Archeological Testing of Ten Sites Along the U.S.-Mexico International Border, Dona Ana County, New Mexico* September 2004). No further cultural resources surveys will be required as the proposed

action would stay within the same footprint as designated by the 2004 EA. None of the ten identified eligible sites are within the Area of Potential Effect for this project and will not be impacted by this proposed project.

We look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. If you have any questions pertaining to this project, please do not hesitate to contact Ms. Patience Patterson, RPA at (817) 886-1723, or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

Enclosures

Copy Furnished w/o enclosures:

Ms. Katherine Slick, Director & SHPO
Department of Cultural Affairs
Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, NM 87501

No Historic Properties Affected.

6/8/07

for NM State Historic Preservation Officer

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

081471

REPLY TO
ATTENTION OF:

June 12, 2007

Engineering and Construction Support Office

SUBJECT: Section 106 Compliance and an Environmental Assessment for the Office of Border Patrol Santa Teresa Station Fence Project, Office of Border Patrol El Paso Sector, Santa Teresa, New Mexico

Ms. Katherine Slick, Director & SHPO
Department of Cultural Affairs
Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, NM 87501

Dear Ms. Slick:

While no final decisions on the fence locations have been made, the U.S. Army Corps of Engineers, Fort Worth District (USACE) on behalf of Customs and Border Protection (CBP) intends to prepare an Environmental Assessment (EA) to address the feasibility of installing and maintaining approximately 3.3 miles of border barrier fence.

Based on congressional and executive mandates, CBP is assessing operational requirements and land issues along the entire Southwest border. Preparing the SEA does not necessarily mean the 3.3 miles of barrier fence will be installed. This effort is a prudent part of the planning process needed to assess any environmental concerns.

The potential project would consist of the construction and maintenance of 3.3 miles of border fence. The proposed border fence would begin at the Santa Teresa Port of Entry (POE) and extend 1.1 mile to the east and west. A second segment of the proposed fence would be at the International Boundary and Water Commission Blackie's Gate and extend to the west end of Sunland Park. Attached is a portion of the 7.5 minute USGS quadrangle identifying the possible project site.

A cultural resources survey of the project area was performed in February 2003 in support of the JTF-6 PVB project (see *A Cultural Resource Survey Along the United State-Mexico International Border, Doña Ana County, New Mexico* April 2003 and *Archeological Testing of Ten Sites Along the U.S.-Mexico International Border, Dona Ana County, New Mexico* September 2004). No further cultural resources surveys will be required as the proposed action would stay within the same footprint as designated by the 2004 EA. None of the ten

identified eligible sites are within the Area of Potential Effect for this project and will not be impacted by this proposed project.

If you have any questions pertaining to this project, please do not hesitate to contact Ms. Patience Patterson, RPA at (817) 886-1723, or Assistant Chief Patrol Agent Roy A. Hoats at the Office of Border Patrol El Paso Sector (915) 834-8303.

Sincerely,

Eric W. Verwers
Director, Engineering and
Construction Support Office

Enclosures

This undertaking will not have an adverse effect on registered or eligible properties.

6/29/07
for NM State Historic Preservation Officer

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

August 21, 2007

Engineering and Construction Support Office

SUBJECT: Conference under Section 7 of the ESA for the proposed construction of 6.9 miles of pedestrian fence in Santa Teresa Station, New Mexico

United States Fish and Wildlife Service
NM Ecological Services Field Office
ATTN: Mr. Eric Hein
2105 Osuna Road NE
Albuquerque, New Mexico 87113

Dear Mr. Hein:

The United States (U.S.) Customs and Border Protection (CBP), Office of Border Patrol (OBP) has prepared an Environmental Assessment (EA) to address the potential effects, beneficial and adverse, of the construction of 6.9 miles of primary pedestrian fence located near the Santa Teresa Station, Doña Ana County, New Mexico and within OBP's El Paso Sector.

This project is being proposed in partial response to the requirements of the Secure Fence Act of 2006. The purpose of this letter is to inform your office of the proposed action and to request your concurrence of CBP's determination regarding effects to federally-listed species due to those changes. A copy of the EA and Finding of No Significant Impact are provided for your review.

This EA tiers from an EA completed by Joint Task Force-Six (JTF-6, now Joint Task Force North [JTF-N]) in 2004 that addressed the installation of approximately 30 miles of permanent vehicle barriers (PVBs) and some improvements to the border road on both the east and west sides of the Santa Teresa POE. The proposed pedestrian fence consists of three segments of primary pedestrian fence totaling approximately 6.9 miles. The first segment begins at the Santa Teresa Port of Entry (POE) and extends to the east and west along the U.S.-Mexico Border for a total of approximately 2.2 miles. The second and third segments begin at the terminus of the eastern segment (1.1 miles east of the POE) and consist of 4.7 miles of pedestrian fence extending to the east and ending just to the west of Sunland. The pedestrian fence would be installed approximately 3 feet north of and parallel to the International border, within the Roosevelt Reservation.

The EA identifies a total of eight Federally endangered, threatened, and candidate species that have the potential to occur in Doña Ana County. These species are bald eagle (*Haliaeetus leucocephalus),* interior least tern (*Sterna antillarum athalassos),* Mexican spotted owl (*Strix occidentalis lucida),* northern aplomado falcon (*Falco femoralis septentrionalis),* southwestern willow flycatcher (*Empidonax traillii extimus),*

yellow-billed cuckoo (*Coccyzus americanus),* Rio Grande silvery minnow (*Hybognathus amarus),* and sneed pincushion cactus (*Coryphantha sneedii).* Of the listed species potentially occurring in Doña Ana County; only habitat suitable to support the aplomado falcon is present in the project corridor. The proposed project corridor does not support the habitat requirements for any other listed species. Furthermore, the JTF-6 2004 EA indicated no evidence of Federally or State listed threatened or endangered species during past surveys of the project corridor.

Although there are grasslands that occur sporadically throughout the project corridor, which could provide foraging habitat for the northern aplomado falcons, these habitats are considered of low quality because of the highly degraded nature and only suitable for use as foraging habitat by the falcon. Due to the isolated nature of these grasslands, their low quality, and the juxtaposition to the existing border infrastructure and the development surrounding the Santa Teresa POE, the loss of this habitat is not considered significant. Furthermore, the proposed pedestrian fencing would protect grassland habitat located north of the project corridor from future degradation as a result of illegal foot and vehicle traffic. The likelihood that construction activities and subsequent OBP operations would harm aplomado falcon individuals is discountable.

Consequently, CBP has determined that the proposed pedestrian fence "*may affect, but is not likely to adversely affect*" the northern aplomado falcon because there is a minimal amount of suitable habitat in the area, and there would be a low potential for temporary disturbance to falcons that may pass through the area. Therefore we request that your office concur with this determination.

Thank you for your assistance with our project planning efforts. If you have any questions, please call Mr. Charles McGregor of the U.S. Army Corps of Engineers (USACE) at (817) 886-1585.

Sincerely,

for Eric W. Verwers
Director, Engineering and
Construction Support Office