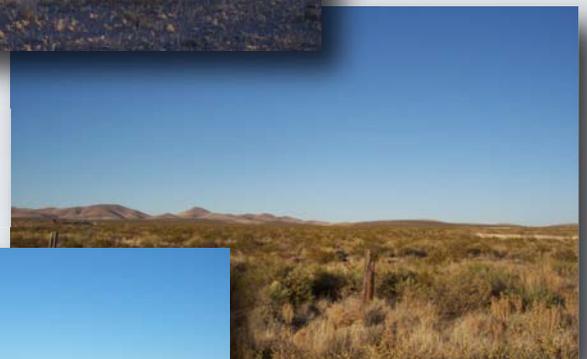




**DRAFT**

## **ENVIRONMENTAL ASSESSMENT**

**FOR THE PROPOSED CONSTRUCTION OF A  
U.S. BORDER PATROL FORWARD OPERATING BASE  
DEMING STATION, LUNA COUNTY, NEW MEXICO**



**APRIL 2008**

## ACRONYMS AND ABBREVIATIONS

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ACHP	Advisory Council on Historic Preservation
AOR	Area of Responsibility
ARMS	Archaeological Records Management System
AST	Aboveground storage tanks
BACMs	Best Available Control Measures
BEA	Bureau of Economic Analysis
Bgs	below ground surface
BLM	Bureau of Land Management
BMP	Best Management Practices
BORSTAR	Border Patrol Search, Trauma, and Rescue Team
BORTAC	Border Patrol Tactical Team
CBP	Customs and Border Protection
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	U.S. Code of Federal Regulations
CO	Carbon Dioxide
CWA	Clean Water Act
dB	decibel
dBA	A-Weighted
DEA	Draft Environmental Assessment
DHS	Department of Homeland Security
EA	Environmental Assessment
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Aviation Administration
FLPMA	Federal Land Policy Management Act
FOB	Forward Operating Base
FONSI	Finding of No Significant Impact
GPS	global positioning system
HUD	Housing and Urban Development
IA	illegal alien
INS	Immigration and Naturalization Service
MARAMA	Mid-Atlantic Regional Air Management Association
MBTA	Migratory Bird Treaty Act
MRA	Mimbres Resource Area
MRI	Midwest Research Institute
MRMP	Mimbres Resource Management Plan
MSA	Metropolitan Statistical Areas
NAAQS	National Ambient Air Quality Standards
NEAP	Natural Events Action Plan

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**DRAFT**  
**FINDING OF NO SIGNIFICANT IMPACT**  
**FOR THE PROPOSED CONSTRUCTION OF A**  
**U.S. BORDER PATROL FORWARD OPERATING BASE**  
**DEMING STATION**  
**LUNA COUNTY, NEW MEXICO**

**PROJECT HISTORY:** United States (U.S.) Customs and Border Protection (CBP) is the Federal agency responsible for enforcing the laws regulating the admission of aliens into the U.S. As part of CBP, U.S. Border Patrol (USBP) is responsible for maintaining control of the U.S. borders. The mission of CBP is to prevent terrorists and terrorist weapons from entering the U.S. This mission involves maintaining a diverse, multi-layered approach, aimed at improving security along the international borders and U.S. Ports-of-Entry, and extending the physical zone of security beyond the Nation's physical borders.

As the law enforcement agency of CBP, the goal of USBP is to strengthen the U.S. borders to prevent the entry of illegal aliens (IAs), terrorist weapons, narcotics, and other contraband. The objective of USBP is to apply appropriate levels of USBP personnel, intelligence, technology, and infrastructure resources to increase the level of operational effectiveness until the likelihood of apprehension is sufficient to be an effective deterrent in creating acceptable border-wide control. The intent is to produce a level of deterrence that conveys an absolute certainty of detection and apprehension.

USBP, El Paso Sector, proposes the construction and operation of a forward operating base (FOB) for the Deming Station's Area of Responsibility (AOR). USBP has submitted an application to Bureau of Land Management (BLM), Las Cruces District, to withdraw approximately 20 acres of public land, as authorized under the Land Withdrawal Act, to allow construction of a proposed facility. The proposed FOB is located 25 miles west of Columbus, New Mexico and adjacent to the south side of New Mexico Highway 9 (NM 9).

The Deming Station's headquarters is located in Deming, New Mexico and is 32 miles north of Columbus, New Mexico and the U.S.-Mexico Border. USBP requires a facility that is located closer to the border that will allow USBP agents the opportunity to increase the effectiveness of USBP operations in remote border areas of Luna County, New Mexico. CBP has prepared the *Draft Environmental Assessment (DEA) for the Proposed Construction of a Forward Operating Base, Deming Station, Luna County, New Mexico* to address this proposed project and meet the requirements of the National Environmental Policy Act (NEPA).

**SUMMARY OF CONCLUSIONS:** Under NEPA, Federal decision makers are required to consider the environmental consequences of their decisions before they act. This DEA analyzed the environmental impacts by utilizing ground surveys of the project area, consulting with affected agencies such as BLM, employing the expert judgment of professional scientists and engineers, and reviewing existing, relevant environmental references for the project site. CBP has concluded, based on the evaluation in the DEA, and input from other Federal agencies, that no significant impacts will result from the implementation of CBP's Proposed Action Alternative.

**PURPOSE AND NEED:** The purpose of the proposed FOB is to improve effectiveness in existing USBP operations in remote border areas of the Deming Station's AOR. USBP has determined the need to enhance logistical and life support to USBP agents and Special Response Teams; shorten response times for USBP agents to illegal traffic; increase the amount of time USBP agents spend patrolling the border; provide availability of rapid first aid for USBP agents and IAs; and reduce the time required to transport and process apprehended IAs.

**ALTERNATIVES:** Factors influencing the choice for the proposed FOB location included the tactical location to support remote USBP operations, presence of utilities, highway access, and availability of land from BLM with readily available access to the border. Therefore only one site was determined to be a viable alternative. The two alternatives identified for analyses were the No Action Alternative and the Proposed Action Alternative.

**Proposed Action Alternative:** The Proposed Action Alternative is to construct and operate a FOB in the Deming Station's AOR. USBP intends to complete the process of requesting a withdrawal of land from BLM to allow construction of a FOB. Until the land withdrawal process is completed with BLM, USBP proposes use of the property for a temporary FOB. Concurrently, USBP has submitted an application for Transportation and Utility, Systems, and Facilities (SF-299), and a proposed Plan of Development for the project to BLM as a request for temporary use of the property.

The design plans for the proposed FOB hinge on the completion of the land withdrawal process; therefore, the Proposed Action Alternative is divided into two phases: temporary and permanent. The temporary phase of the Proposed Action Alternative would entail placement of temporary FOB components to support modular facilities within a secure 10-acre site. The additional 10 acres would be used for an access road from the FOB to NM 9 ROW, and as a buffer for the FOB facilities from NM 9.

Detailed descriptions of the temporary components are provided in Section 2.2 of the DEA. In summary, the temporary components include:

- two (2) modular trailers for the purposes of operations and IA processing;
- a secure vehicle and equipment seizure storage area;
- two (2) diesel generators to provide primary power;
- perimeter fencing around 10 acres with lights and security cameras;
- a portable fueling station with compliant containment measures;
- water storage tanks for potable, sewage, and fire suppression purposes; and
- a temporary unimproved driveway and parking area, both surfaced with a thin application of gravel.

The temporary components of the FOB would be placed or installed in such a way that would allow removal of all components from the site should the land withdrawal be

denied. If the land withdrawal request is denied, USBP would remove all temporary facilities and return the property to pre-construction conditions.

Upon approval of the land withdrawal, the permanent phase would be implemented. This phase would entail an upgrade of temporary components to permanent components. Permanent components include upgrades to all temporary facilities previously identified, in addition to:

- 10-acre fenced perimeter with gravel spread only within this 10-acre area;
- a two-lane asphalt (paved) driveway with parking area;
- a concrete helipad;
- horse stalls with a corral;
- septic system (either underground or aboveground);
- upgraded perimeter security (permanent fencing, lighting, and cameras);
- a permanent fuel station with compliant containment measures;
- appropriate stormwater retention/detention measures; and
- service connections to electric and data utilities.

Once the land withdrawal is complete, hydrological surveys would be performed. If the results indicate the aquifer could sustain the water requirements of the FOB, a water well would be drilled. Temporary FOB facilities would be fully operational in 1 to 3 months following the start of construction. Upon completion of the land withdrawal, an additional 3 to 6 months of construction to upgrade the facility with permanent structures would be required.

**No Action Alternative:** This alternative would require USBP to continue remote operations as they are currently conducted without added logistical support to operations. Under this alternative, no FOB would be constructed. Although the No Action Alternative does not meet the purpose and need, it was analyzed and served as a basis of comparison to the Proposed Action Alternative.

**ENVIRONMENTAL CONSEQUENCES:** No significant adverse effects to the natural or human environment are expected upon the implementation of the Proposed Action Alternative. Although ground disturbance would be required, it would not affect aesthetics, threatened and endangered species, critical habitat, socioeconomics, or cultural resources. Implementation of the Proposed Action Alternative would have minor impacts to soils, vegetation, wildlife habitat, air, noise, and water quality. The Proposed Action Alternative would ultimately remove 10 acres of soil from biological production, and consequently remove vegetation and wildlife habitat. However, this area represents only a minor portion of a regionally common soil type and vegetation community. Air quality, water quality, and noise would be temporarily impacted by construction activities. Upon the completion of construction, conditions for these three resources are expected to return to near-baseline levels. During the operational period only minor long-term impacts to land use, soils, air quality, and noise levels would result.

**ENVIRONMENTAL DESIGN MEASURES:** The responsibility of implementation of environmental design measures belongs to the USBP, El Paso Sector project manager or his/her identified project or program manager. This person would have immediate authority to decide a course of action or has the authority to recommend a course of action, from among options, to the next higher organization level for approval. To this end the CBP Regional Environmental Program Manager will issue an environmental design measures checklist detailing each of the design measures, as well as any other commitments to other agencies or resources. Prior to the start of any work, written acknowledgement of and compliance with the commitments set forth will be required by the project proponent.

Should the request for land withdrawal from BLM to USBP be denied, all temporary components from the proposed FOB site will be removed. The FOB site will then require active rehabilitation in order to ensure that the project area will be on a path to pre-existing conditions within 3 years of removing the temporary FOB components. As outlined in Section 5.0 of the DEA, USBP will coordinate with BLM to determine the most suitable and cost effective measures required to accomplish successful rehabilitation of the site. All other environmental design measures that will be implemented by USBP as part of the Proposed Action Alternative include:

**Soils:** Suitable fencing will be installed around the perimeter of the facility to contain vehicles and people and to prevent impacts to soils on adjacent properties. Vehicular traffic associated with construction and operational support activities will remain on established roads to the maximum extent practicable. The project area will be given special consideration when designing the proposed FOB to ensure incorporation of various best management practices such as straw bales, aggregate materials, and wetting compounds to decrease erosion. As detailed in Section 5.2 of the DEA and to comply with the National Pollutant Discharge Elimination System permit process, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and a Notice of Intent will be submitted in order to obtain a Construction General Permit. CBP intends to submit a copy of the SWPPP to U.S. Environmental Protection Agency and the New Mexico Environment Department for cursory review prior to the start of construction. Furthermore, upon completion of the permanent phase of the FOB, the remainder of the FOB site will be surfaced with gravel to minimize erosion.

**Biological Resources:** Pursuant to compliance with the Migratory Bird Treaty Act, Section 5.3 of the DEA outlines coordination and applicable permit requirements that will be met prior to construction activities. Pre-construction surveys for migratory bird species during the nesting season (March 1-September 1) will occur immediately prior to the start of any construction activity to identify active nests. If construction activities will result in the "take" of a migratory bird, then coordination with the USFWS will occur and applicable permits will be obtained prior to construction or clearing activities. As practicable, construction activities will be scheduled outside the nesting season, negating the requirement for nesting bird surveys.

Prior to construction activities an additional survey of the project area will occur to determine the presence of newly established state and BLM protected plants. Subsequently, if protected plants are located they will be flagged for avoidance. As practicable, any newly discovered protected plants will be relocated to a similar nearby vegetation type by qualified biologists. If a BLM sensitive species or state listed wildlife species is observed in the project area during the construction phase of this project, coordination with BLM and state agencies will occur, as necessary, for the avoidance or relocation of state and BLM protected species. The CBP Regional Environmental Program Manager (Dallas Facility Center) and U.S. Army Corps of Engineers, Albuquerque District project manager shall collaborate to ensure representative photographs of BLM sensitive species and state sensitive species of concern are provided to the contractor prior to construction activities.

Lights will be installed such that the direction of illumination is downward and towards the FOB facilities and lights backshielded to limit impacts to surrounding vegetation and wildlife. In accordance with the New Mexico Wildlife Conservation Act, all transmission poles will be designed so that potential electrocution hazards to raptors are minimized or eliminated. Since the highest period of movement for most wildlife species occurs during night time or low daylight hours, all construction activities will be limited to daylight hours to the extent practicable.

CBP will require the periodic, random inspection of construction operations by qualified biologists. Qualified biologists will conduct "tailgate meetings" (onsite meetings with construction crews) for the purposes of educating construction crew personnel on the identification of protected species, sensitive areas, and the importance of avoiding these species as well as the importance of the conservation of wildlife in general. Construction crew personnel will be instructed in conducting daily inspections of exposed post holes and trenches to further minimize small animal mortality.

**Cultural Resources:** Section 106 consultation has been initiated and will be completed prior to construction. If previously unknown cultural resources are exposed by construction activities associated with the proposed project, work will stop in the immediate vicinity, the resources will be protected, and the New Mexico State Historic Preservation Officer (SHPO) and the BLM cultural resources manager will be notified within 24 hours of discovery. If, in consultation with the SHPO and BLM, it is determined that the resource is significant and if a significant resource cannot be avoided by construction, then an archaeological data recovery plan will be prepared and implemented in consultation with the SHPO and BLM.

**Air Quality:** Mitigation measures identified in Section 5.6 of the DEA will include suitable fencing to restrict construction traffic within the project area reducing soil disturbance. Soil watering will be utilized to minimize airborne particulate matter created during construction activities. Bare ground will be covered with weed free hay or straw to lessen wind erosion between facility construction and landscaping. Upon initiation of the permanent phase, all areas with vehicle traffic will be paved or graveled to reduce the potential for fugitive dust. Additionally, all construction equipment,

vehicles and aircraft will be kept in good operating condition to minimize exhaust emissions.

Under New Mexico Administrative Code 20.2.72, a Notice of Intent will be required in order to operate the onsite generator as a source of primary power to the FOB. It is expected that the onsite generator will be utilized as the primary power source to the FOB for a period of 3 to 6 months during the temporary and permanent phases until permanent utilities are established.

**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. The SWPPP will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan. A copy of the SWPPP will be present on-site during construction activities. Design, implementation, and operation of an on-site liquid waste system will comply with New Mexico liquid waste disposal and treatment regulations. No grey water will be discharged onto the ground.

**Noise:** During the construction phase, minor short-term noise impacts are anticipated. All Occupational Safety and Health Administration requirements will be followed. To lessen noise impacts to the wildlife communities, construction will only occur during daylight hours, whenever practicable. All motor vehicles will be maintained in proper working condition to reduce the potential for vehicle-related noise. Generators will be soundproofed with barrier walls of sufficient height and material that will substantially reduce the generator noise. USBP shall review helicopter landing and take-off routes to determine what actions can be taken, such as limiting approach routes, timing the use of different routes depending on the time of day to reduce potential adverse effects on wildlife. No changes in current flight altitudes parameters or surveillance routes will occur.

**Solid, Liquid, and Hazardous Wastes Materials:** Measures will be taken to avoid impacting the project area with regulated substances (e.g., anti-freeze, gasoline, lubricants) associated with construction and operations. Pursuant to compliance with 40 CFR, Part 112, an Oil Pollution Prevention Plan and a Spill Prevention Control and Countermeasure Plan (SPCCP) will be in place prior to the start of construction and subsequent operations and all personnel will be briefed on the implementation and responsibilities of this plan. An operational SPCCP is required due to storage and utilization of petroleum products and maintenance of above ground storage tanks. Best Management Practices (BMPs) as identified in Section 5.9 of the DEA will be implemented as standard operating procedures during all construction and operational activities.

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 will be

collected and disposed of properly in accordance with the Solid Waste Disposal Act. All unregulated wastes (e.g., general trash, manure, and sewage) will be disposed of by a licensed waste disposal contractor as required by state and local regulations.

**FINDING:** After careful consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing National environmental policies and objectives as set forth in the NEPA and the corresponding Council on Environmental Quality regulations, and complies with the procedural provisions of NEPA.

Based upon the findings of this DEA and incorporation of the environmental design measures detailed in Section 5, it has been concluded that the Proposed Action will not have a significant adverse effect on the environment. Therefore, no further environmental impact analysis is warranted.

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Victor M. Manjarrez, Jr.  
Chief Patrol Agent  
U.S. Border Patrol  
El Paso Sector

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Date

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Robert F. Janson  
Acting Executive Director  
Facilities Management and Engineering  
U.S. Customs and Border Protection

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Date



**Draft**

**ENVIRONMENTAL ASSESSMENT  
FOR THE PROPOSED CONSTRUCTION OF A  
U.S. BORDER PATROL FORWARD OPERATING BASE  
DEMING STATION, LUNA COUNTY, NEW MEXICO**

**April 2008**

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Lead Agency: U.S. Customs and Border Protection  
Asset Management Division  
Portfolio Management Branch  
Room 3.4-D  
1300 Pennsylvania Avenue, N.W.  
Washington, D.C. 20229

Point of Contact: Jeffrey Firebaugh  
Military and IAS PM Branch  
U.S. Army Corps of Engineers  
4101 Jefferson Plaza NE  
Albuquerque, NM 87109



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## EXECUTIVE SUMMARY

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- BACKGROUND:** U.S. Border Patrol (USBP) El Paso Sector proposes the construction and operation of a Forward Operating Base (FOB) within the Deming Station's Area of Responsibility (AOR), Luna County, New Mexico. USBP has submitted an application to Bureau of Land Management (BLM), Las Cruces District, to withdraw approximately 20 acres of public land, as authorized under the Federal Land Policy Management Act (FLPMA), to allow construction of a FOB.
- PURPOSE AND NEED FOR THE PROPOSED PROJECT:** The purpose and need for this proposed FOB is to:
- provide enhanced logistical and life support to USBP agents, and, specifically, Special Response Teams; Border Patrol Search, Trauma, and Rescue Teams; and Border Patrol Tactical Teams;
  - increase the amount of time USBP agents spend patrolling the border;
  - shorten response times to illegal traffic areas for USBP agents;
  - provide the availability of rapid first aid for USBP agents and illegal aliens (IAs); and
  - reduce the time required to transport IAs for processing.
- PROPOSED ACTION:** The Proposed Action is the preferred alternative and includes the construction and operation of a FOB within the Deming Station's AOR, Luna County, New Mexico. USBP has submitted an application to BLM, Las Cruces District, to withdraw approximately 20 acres of public land, as authorized under FLMPA, to allow construction of the proposed facility.

ALTERNATIVES TO  
THE PROPOSED  
ACTION:

Alternatives addressed in this Draft Environmental Assessment (DEA) include Alternative 1: No Action Alternative, which would preclude the construction of a FOB within the Deming Station's AOR, and Alternative 2: Proposed Action Alternative (preferred alternative), as described above. The No Action Alternative would not enhance USBP response time or safety, and does not enhance the detection, deterrence and apprehension of IAs. Alternative 2: the Proposed Action Alternative meets the criteria identified in the Purpose and Need for this project.

ENVIRONMENTAL  
IMPACTS OF THE  
PROPOSED ACTION:

Implementation of the Proposed Action Alternative would have minor impacts on soils, vegetation, wildlife habitat, air, noise, and water quality. The Proposed Action Alternative would ultimately remove 10 acres of soil from biological production, and consequently remove vegetation and wildlife habitat. However, this area represents only a minor portion of a regionally common soil type and vegetation community. Air quality, water quality, and noise would be temporarily impacted by construction activities. Upon the completion of construction, conditions are expected to return to near-baseline levels. During the operational period only minor long term impacts would result.

CONCLUSIONS:

Based upon the results of this DEA, it has been concluded that the Proposed Action Alternative would not have a significant adverse effect on the environment, and no additional National Environmental Policy Act documentation is warranted.

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***SECTION 1.0***  
***INTRODUCTION***





## **1.0 INTRODUCTION**

---

### **1.1 BACKGROUND**

United States (U.S.) Customs and Border Protection (CBP) and U.S. Border Patrol (USBP) El Paso Sector have prepared this Draft Environmental Assessment (DEA) to address the potential effects, beneficial and adverse, from the construction and operation of a Forward Operating Base (FOB) adjacent to New Mexico Highway 9 (NM 9), located approximately 25 miles west of Columbus, New Mexico. The location and general vicinity of the proposed FOB are shown in Figure 1-1. The Proposed Action Alternative would be situated within a parcel of public land (a 20-acre tract) located at:

Section 3, E1/2 SW1/4 NE1/4 Section 3, Township 29 South, Range 12 West, New Mexico Principal Meridian, Luna County, New Mexico.

The above described land is included in a request for land withdrawal from U.S. Department of the Interior, Bureau of Land Management (BLM) according to the Federal Land Policy and Management Act (FLPMA) of 1976 Section 204 as amended. The Proposed Action Alternative includes the construction of modular USBP facility with associated infrastructure on approximately 10 acres within this 20-acre parcel.

USBP has submitted an application for Transportation and Utility, Systems, and Facilities (SF-299), and proposed "Plan of Development" for the project to BLM, Las Cruces Office, as a request for temporary use of the parcel until the land withdrawal request is approved or denied. The FOB would be a secure remote substation for tactical operations that would provide added administrative and logistical support to USBP agents in the field.

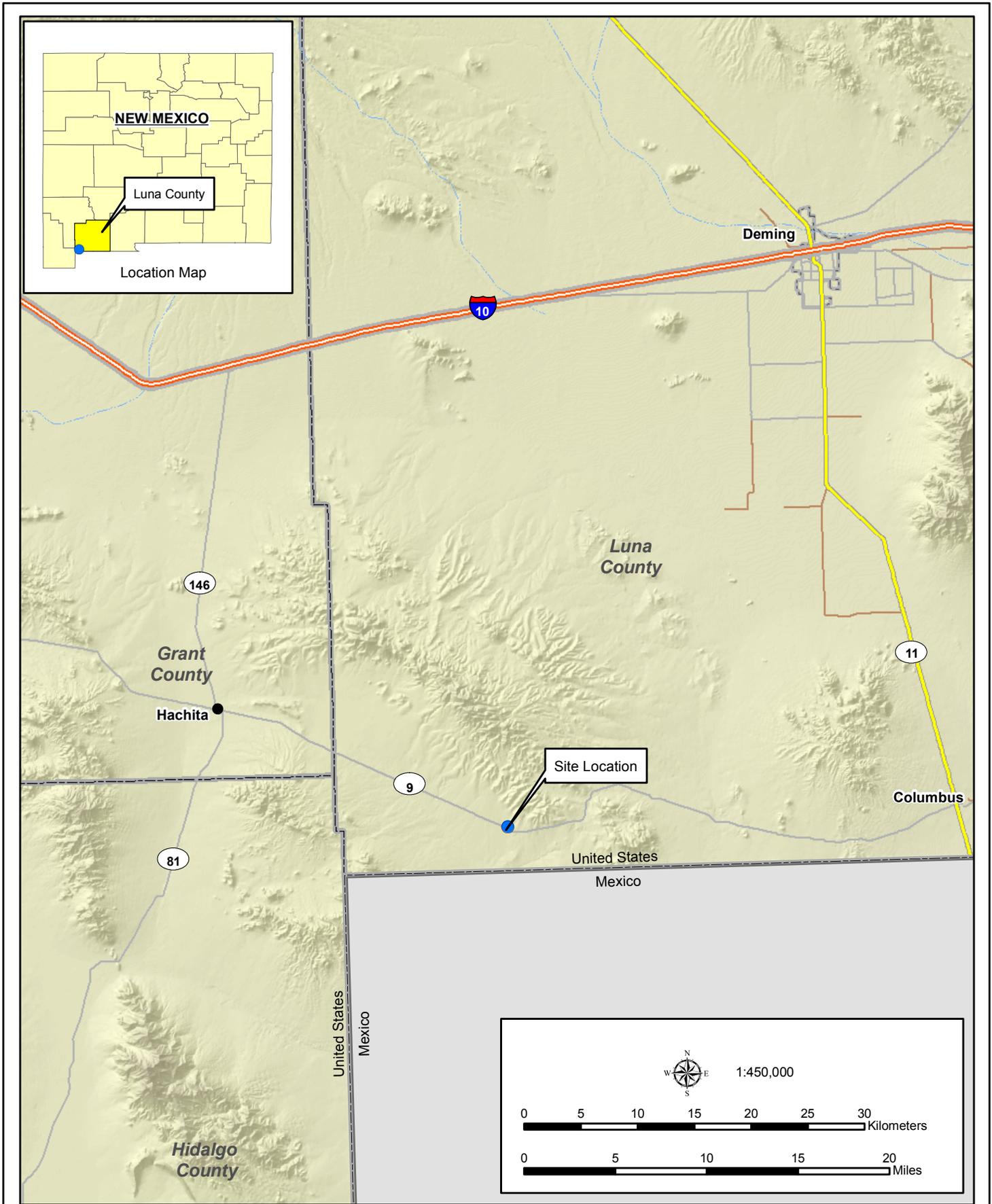


Figure 1-1: Project Vicinity Map



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The Deming Station's headquarters is located in Deming, New Mexico (herein referred to as Deming), 32 miles north of Columbus and the U.S.-Mexico Border (57 miles from the proposed FOB location). USBP requires a FOB that is located closer to the border to detail USBP agents for 1 to 2 week shifts allowing for the opportunity to improve the effectiveness of USBP operations in remote border areas of Luna County, New Mexico.

## **1.2 PROPOSED ACTION**

The preferred action, herein called the Proposed Action, described in this DEA is to construct and operate a FOB within the Deming Station AOR. The FOB would consist of modular buildings and associated infrastructure (see Section 2.2 for additional details).

## **1.3 PURPOSE AND NEED**

The purpose of the proposed FOB is to improve effectiveness in existing USBP operations in remote border areas of the Deming Station's Area of Responsibility (AOR). USBP has determined the need to increase the amount of time agents spend on the border within the Deming Station's AOR, and reduce agent response time to intercept illegal alien (IA) traffic, while enhancing life and logistical support for operations. By providing enhanced support closer to the border, the time required for transporting and processing IAs would be reduced; thereby increasing the time an agent can spend patrolling the border.

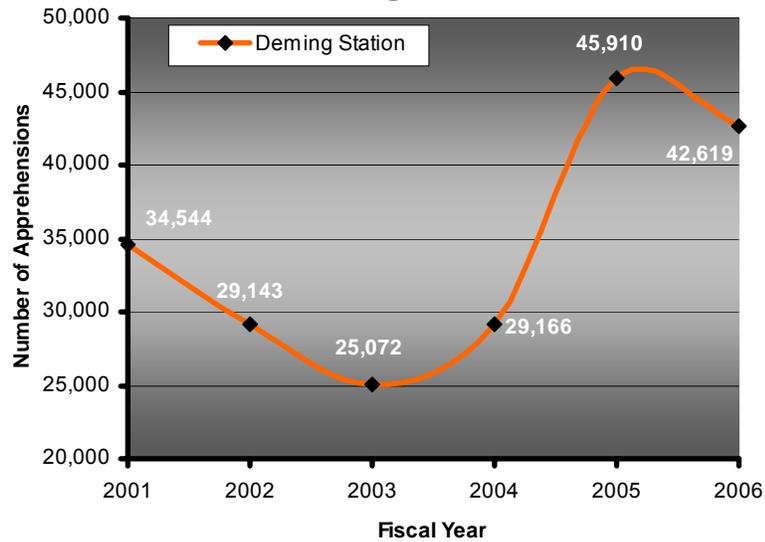
The proposed FOB would provide the enhanced support needed for normal USBP operations and provide life support for agents detailed to the FOB for 1 to 2 weeks. In addition to normal operations, the proposed FOB would support special operations and rapid response teams, such as the Border Patrol Tactical Team (BORTAC), the Border Patrol Search, Trauma, and Rescue Team (BORSTAR), and Special Response Teams (SRT). These teams support domestic and international intelligence-driven and anti-terrorism efforts as well as other special operations. They assist normal operations in

terrorism prevention through planning, training, and tactical deployment. As a highly mobile, rapid-response tool, their deployment significantly increases USBP's ability to respond operationally to specific terrorist threats and incidents, as well as to support the traditional USBP mission (CBP 2004).

While the exact number and locations of USBP agents present along the border is an issue of tactical advantage, the proposed FOB is expected to provide direct support for 10 to 35 agents at any given time. Having agents temporarily housed closer to the border would also increase safety for USBP agents and IAs, as well as provide deterrence to illegal entry.

As a result of tighter controls, increased apprehensions, and Tactical Infrastructure (TI) emplacement in California and Arizona over the past several years, the Deming region has become a route of choice for IAs. The Deming Station has experienced between 25,000 and 46,000 annual apprehensions over the past 6 years (Figure 1-2). Since Fiscal Year 2001, the total annual apprehensions have increased by 23 percent. Without a continuous presence of USBP operations in this area, illegal traffic would likely continue to increase. The withdrawal of land from BLM and construction of a remote FOB would support the overall operations of the USBP Deming Station and serve as a force multiplier, thus improving USBP's operational effectiveness without increasing operational effort.

**Figure 1-2. Number of Apprehensions from FY 2001-2006 for Deming Station's AOR**



#### 1.4 PUBLIC INVOLVMENT

CBP and USBP invite public participation in the National Environmental Policy Act (NEPA) process. Consideration of the views and information of all interested parties promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process. In addition, coordination letters were sent to inform various Federal and state agencies of CBP's intent to prepare the DEA. These letters were sent on February 5, 2008 and copies of the letters are included in Appendix A.

Public participation opportunities with respect to this DEA and decision-making on the Proposed Action are guided by 32 CFR Part 651. The DEA will be made available to the public for 30 days, along with a Draft Finding of No Significant Impact (FONSI). At the end of the 30-day public review period, CBP will consider any comments submitted by individuals, agencies, or organizations on the Proposed Action, the DEA, or Draft FONSI. As appropriate, after consideration of comments received, CBP may then

execute the FONSI and proceed with implementation of the Proposed Action. If it is determined that implementation of the Proposed Action would result in significant impacts, CBP will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts below significant levels, or not take the action.

Once the DEA is made available for public review, a Notice of Availability (NOA) will be published in the *Deming Headlight* and a copy of the DEA would be on file at the Deming Public Library, 110 South Diamond Avenue, Deming, New Mexico for public review. The DEA is also available electronically at the U.S. Army Corps of Engineers (USACE) Albuquerque District website: <http://spa.usace.army.mil>.

## **1.5 COOPERATING AGENCIES**

The 20-acre parcel on which the FOB would be constructed is currently managed by BLM. It is the mission of BLM to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations. CBP has submitted a withdrawal request for the property from BLM. For this reason BLM has requested to be a cooperating agency for this project. BLM would also be a permitting agency, as USBP has submitted an application for Transportation and Utility, Systems, and Facilities (SF-299), and a proposed “Plan of Development” for the project to BLM.

## **1.6 FRAMEWORK FOR ANALYSIS**

This DEA has been developed in accordance with NEPA, CEQ *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*, (40 CFR Parts 1500–1508), and DHS Management Directive 5100.1, which is Department of Homeland Security’s (DHS) NEPA implementation regulations. The purpose of NEPA is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives.

This DEA identifies, documents, and evaluates environmental effects of the construction and operation of a FOB within the Deming Station's AOR. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, and historians has analyzed the Proposed Action and alternatives in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action.

In accordance with CEQ regulations (40 CFR § 1502.16), this DEA addresses potential impacts to the affected environment within the project corridor for the two alternatives outlined in Section 2 of this document. An impact (consequence or effect) is defined as a modification to the human or natural environment that would result from the implementation of an action. The impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. The effects can be temporary, short-term, long-term or permanent. For purposes of this DEA, temporary effects are defined as those that would occur during construction or immediately after construction; short-term impacts would last less than 3 years after completion of the action. Long-term impacts are defined as those that would last 3 to 10 years. Permanent impacts would indicate an irretrievable loss or alteration of resources.

Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. The significance of the impacts presented in this DEA is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions. Significant impacts are those effects that would result in substantial changes to the environment (as defined by 40 CFR 1500-08) and should receive the greatest attention in the decision-making process.

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***SECTION 2.0***  
***PROPOSED ACTIONS AND ALTERNATIVES***

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## **2.0 PROPOSED ACTIONS AND ALTERNATIVES**

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Two alternatives were considered during the preparation of this DEA: the No Action Alternative, and Proposed Action Alternative. The following paragraphs describe the alternatives considered.

### **2.1 ALTERNATIVE 1: NO ACTION ALTERNATIVE**

Under the No Action Alternative, no construction activities would occur. The No Action Alternative would preclude the construction and operation of a FOB in the Deming Station AOR. The No Action Alternative does not meet the project's purpose and need, but has been carried forward for analysis, as required by CEQ regulations. The No Action Alternative forms the baseline against which the Proposed Action Alternative is compared.

### **2.2 ALTERNATIVE 2: PROPOSED ACTION ALTERNATIVE**

USBP El Paso Sector proposes the construction and operation of a FOB in the Deming Station AOR, 25 miles west of Columbus, New Mexico (Figure 2-1). As authorized under the Federal Land Policy and Management Act (FLPMA), USBP is in the process of requesting a withdrawal of land from BLM to allow construction of a FOB. A conceptual layout of the proposed FOB is provided in Figure 2-2. The timeline and exact design details (location and size) for the construction of the proposed facility and some of its components are not known at this time and will be dependant on more detailed engineering design plans. However, the USBP El Paso Sector has developed a preliminary Project Management Plan that identifies the general site layout and facility requirements (CBP 2007). Based on this plan and if land withdrawal is approved, the southernmost 10 acres would be fenced, graveled, and would be used for operational and support facilities. The northernmost 10 acres would be used to construct an access road from the FOB to NM 9 Right of Way (ROW) and an open space buffer from NM 9.

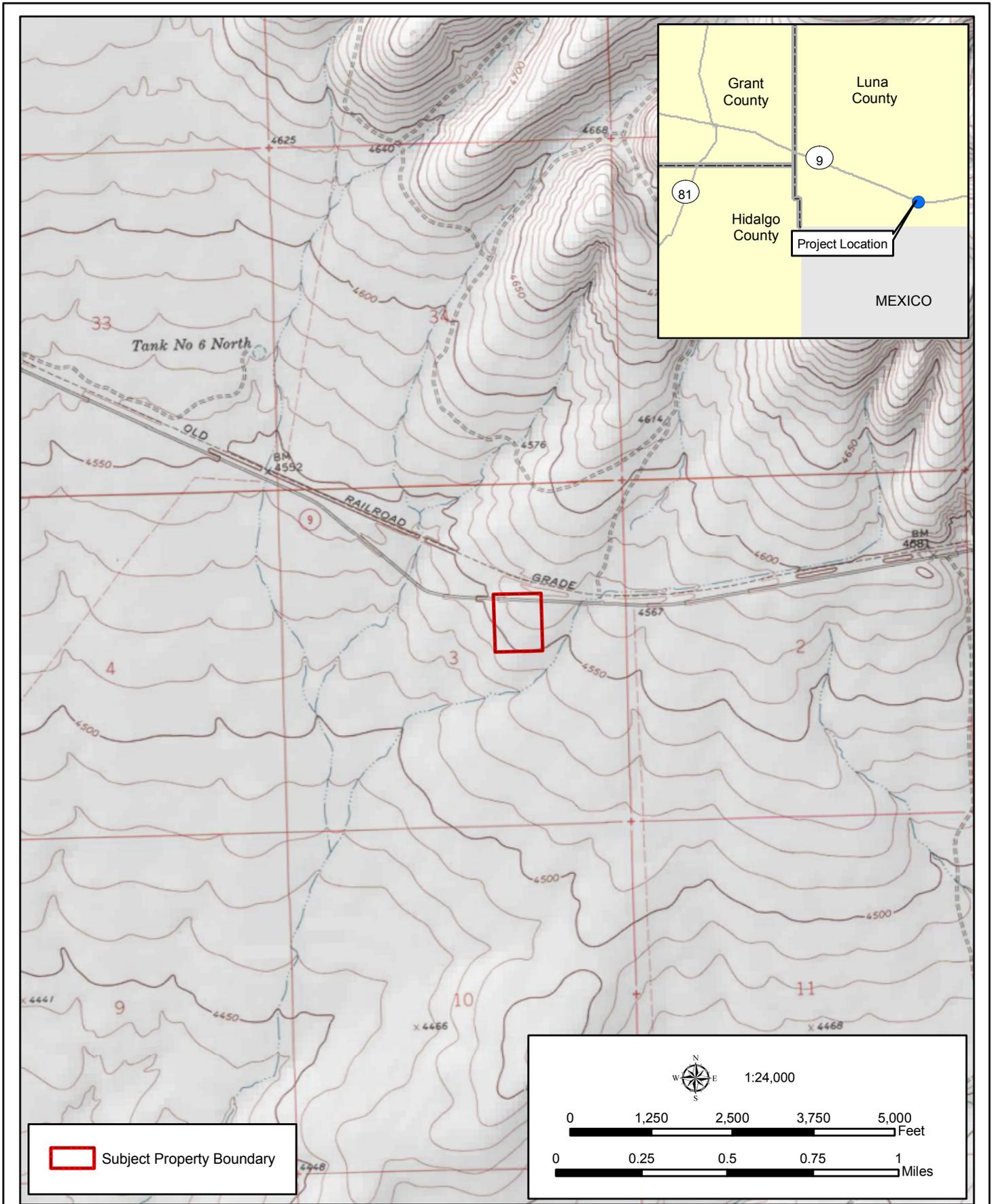


Figure 2-1: Proposed FOB Location Map



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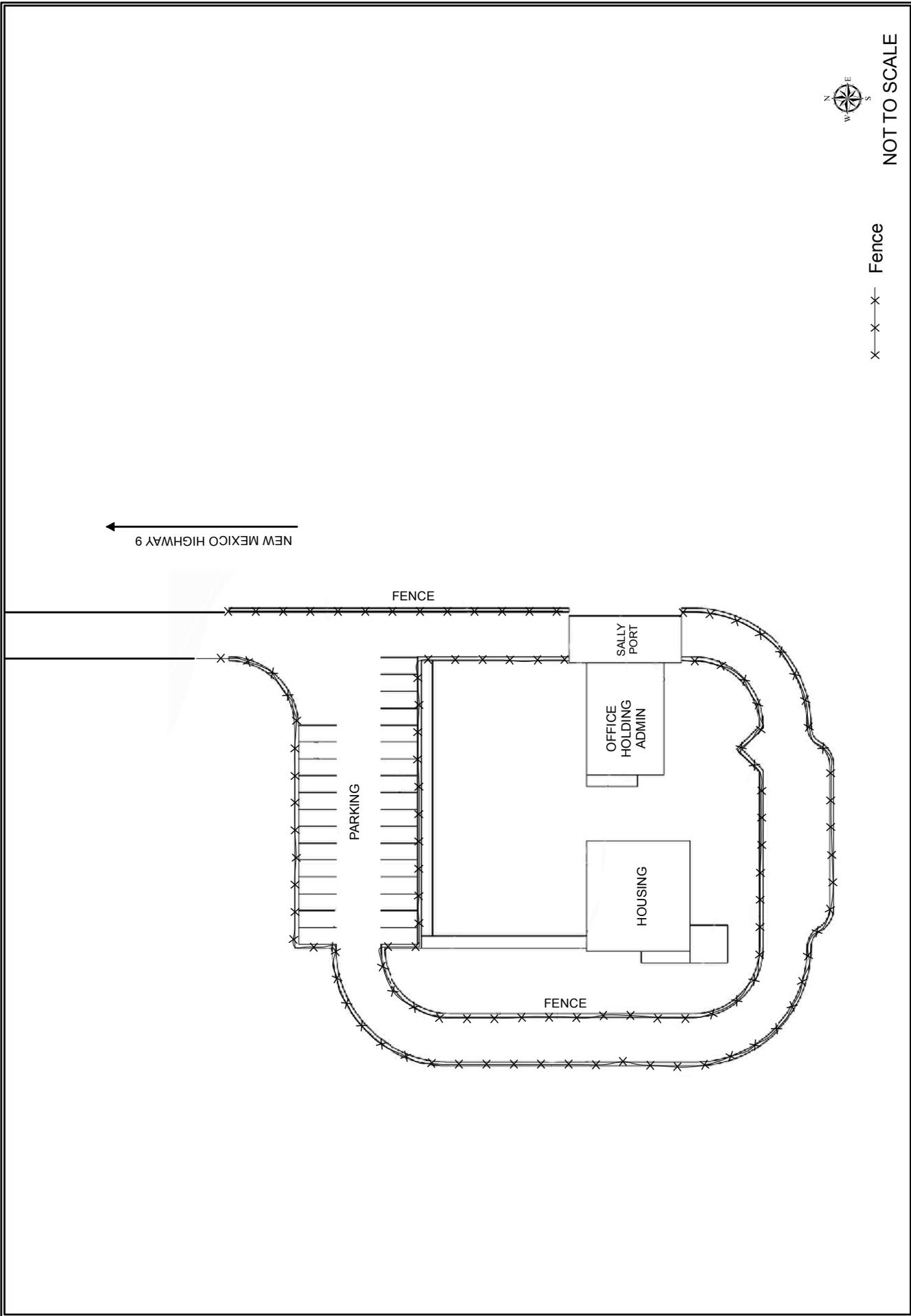


Figure 2-2: FOB Conceptual Layout

However, portions of the northernmost 10 acres may be used in the future for FOB expansion and additional parking. No construction would take place north of NM 9.

The actual design plans for the FOB hinge on the completion of the land withdrawal process; therefore, the Proposed Action Alternative is divided into two phases: temporary and permanent. Initially the Proposed Action Alternative would entail placement of temporary FOB components to support modular facilities located within a secure fenced 10-acre site within the 20 acre parcel. Temporary FOB facilities would consist of:

- one 60-foot by 41-foot modular trailer with an external 25-foot by 60-foot attached shade canopy (to serve as the processing center);
- one 58.9-foot by 54.8-foot modular trailer with an external 25-foot by 60-foot attached shade canopy (to serve as living quarters);
- a secure vehicle and equipment seizure storage area;
- two 350-kilowatt diesel generators each with a 150- to 500-gallon fuel tank. One generator would be used as the prime source of power to the site and the other as a backup;
- temporary utility poles with lights and cameras placed on the perimeter of the site;
- one portable 30-foot by 30-foot fuel station with approved secondary containment systems for the following aboveground storage tanks (AST);
  - one 1,000-gallon (unleaded) AST;
  - one 1,000-gallon (diesel) AST;
  - one 1,000-gallon (aviation fuel) AST;
- one 10,000-gallon aboveground potable water storage tank;
- one 10,000-gallon fire suppression water storage tank;
- one 10,000-gallon black and grey water (sewage) storage tank;
- a 10 acre perimeter of temporary fencing placed within the 20 acres; and
- a temporary unimproved driveway with parking area, covered with a light application of gravel.

Two main buildings are proposed. One of the proposed modular buildings would provide space for IA processing, temporary detention (including detention cells for

males/females/juveniles), isolation area(s), an interview room, a food preparation area, a supervisor office, and an operations control room. Other functional uses of this building would include a local area network room, a janitorial room, restrooms, an equipment room, a break area, and a public reception area with handicapped access. The second building would house USBP agents, including special teams such as BORTAC, BORSTAR, and SRT. This facility would include supervisory offices, male and female rest rooms with showers, male and female squad bunk facilities, a kitchen, a janitorial closet, an equipment room, a day room, a briefing/general assembly area, an operational planning area, and a secure armory.

The temporary FOB would be equipped with temporary AST fuel storage areas and dispensing sites installed in such a way that they are in compliance with the New Mexico Petroleum Storage Tank Regulations (20.5, New Mexico Administrative Code [NMAC]). While an aviation fuel AST is proposed as a component of the FOB during the temporary phase, it is intended to be “on hand” for emergency purposes only as helicopter operations would not be supported during the temporary phase. If a helicopter were required to land at the FOB, it would be for emergency purposes only.

Primary power for the FOB would be supplied via a diesel generator. Potable and fire suppression water would be transported to the FOB as needed, and stored in ASTs or bladders (*i.e.*, water buffaloes). Data communications would be provided via temporary connections to fiber optic data lines currently located within the NM 9 ROW.

The temporary components of the FOB would be placed or installed in such a way that would allow removal of all components from the site should the land withdrawal be denied. Upon approval of the land withdrawal request, the permanent phase of the Proposed Action Alternative would be implemented. This phase would entail an upgrade of temporary components to permanent components. The components of the permanent FOB would consist primarily of:

- all of the components described under the temporary component description;
- construction of a two-lane asphalt (paved) driveway (approximately 20 feet wide) and parking area (approximately 30,000 square feet of parking space);
- a 60-foot by 60-foot marked, unlit concrete helipad;
- horse stalls, and a corral (once engineering designs plans are completed);
- underground septic system (5,000 gallon capacity); an underground septic tank permit would be obtained, to replace the black and grey water storage container;
- upgraded security fencing and the addition of lighting, and cameras;
- stormwater retention/detention measures to protect the FOB and adjacent properties from stormwater run-off;
- fuel storage above-ground storage tanks (ASTs) would be upgraded to permanent facilities with approved containment;
- connections to electric and data utilities; and
- gravel placed over the 10-acre fenced-in area.

Upon implementation of the permanent phase of the Proposed Action Alternative, a helipad would be constructed to support aerial logistics and surveillance for ground operations. While Figure 2-2 identifies a conceptual location for the helipad, the exact location would not be determined until engineering site designs are completed. However, to address safety and security concerns, it would be located within the fenced-in perimeter at a safe distance from other FOB components. No long term parking or maintenance (except for emergencies) of aircraft would take place at the FOB. While the exact number and frequency of flights is not known, liberal estimates would include at least one to three landings and/or refueling operations per day. Since the design of the helipad does not contain lights, only daytime operations are expected.

Soils within the project area are known to have very limited potential to serve as leach fields (Natural Resource Conservation Service [NRCS] 2007). Therefore, contingent on the feasibility and practicality of USBP to obtain a septic tank permit pursuant to New Mexico State Liquid Waste Disposal and Treatment Regulations (20.7.3 NMAC), a septic system to treat wastewater would be installed below the soil surface. While the

exact design of the septic system is not yet known, it is expected to include a 5,000-gallon fiberglass holding tank with a leach field and trenches. If a permit cannot be obtained, then the temporary aboveground system would be retrofitted to serve as a permanent structure.

Temporary perimeter security fencing and lights would be upgraded with more permanent components including:

- site perimeter fencing (10- to 12-foot chain-link fencing with razor or barbed wire security attachments);
- privacy security fencing for detention and seizure areas (similar chain-link fencing);
- shielded and directional security lighting;
- security cameras; and
- automatic electronic security gates.

The fuel storage areas and dispensing sites would be upgraded to permanent facilities (concrete-lined containment areas) and maintained and operated as required by New Mexico Petroleum Storage Tank Regulations.

Once the land withdrawal is complete, hydrological surveys would be performed. If the results indicate the local aquifer could sustain the water requirements of the FOB, a water well would be drilled. For the temporary FOB, all water requirements would be obtained from outside commercial sources and supplied to the FOB on a regular basis. Data connections to fiber optic data lines would become permanent. No utilities currently exist within the vicinity of the project area. However, early coordination with Columbus Electric Cooperative, Inc. has been initiated to provide for connection of single phase power to the FOB from a location approximately 4 miles to the east of the project area on the north side of NM 9. Utility service would require installation of poles within the existing transportation ROW crossing NM 9 at either the point of existing service or at the proposed FOB location.

It is possible that 6 to 12 months may be required to secure funding for the installation of power lines; therefore, one generator and an additional temporary backup generator would be used as a primary power source until permanent utilities can be supplied by Columbus Electric Cooperative, Inc. Once funding is secured, approximately 2 weeks would be required to establish permanent utilities. Once permanent utilities are connected, only one generator would remain as a backup power source and the other would be removed from the FOB.

Construction activities of the proposed FOB would be conducted in a phased manner, dependant on the execution and completion of the SF-299 allowing BLM to approve temporary use of the land. It is expected that temporary FOB facilities would be in place and operational in 1 to 3 months following the start of construction. Upon completion of the land withdrawal, an additional 3 to 6 months of construction activities are anticipated to upgrade the facility with permanent structures.

### **2.3 ALTERNATIVES IDENTIFIED BUT REMOVED FROM CONSIDERATION.**

USBP El Paso Sector proposed the construction and operation of a FOB at a different site within the Deming Station's AOR, 32 miles west of Columbus, New Mexico. Under this alternative, 10 acres were to be withdrawn from BLM. This alternative site was removed from consideration because BLM received requests from the lessee of that property not to locate the FOB at this alternative location.

### **2.4 SUMMARY**

The two alternatives carried forward for analysis are the No Action Alternative and Proposed Action Alternative. An alternative matrix (Table 2-1) compares the two alternatives relative to the purpose and need. Table 2-2 presents a summary matrix of the impacts from the two alternatives analyzed and how they affect the environmental resources in the region.

**Table 2-1. Relationship between Purpose and Need and Alternatives**

<b>Requirements</b>	<b>Alternative 1: No Action Alternative</b>	<b>Alternative 2: Proposed Action Alternative</b>
Provide enhanced logistical and life support to USBP agents and Special Response Teams	NO	YES
Shorten response times for USBP agents to illegal traffic	NO	YES
Increase the amount of time USBP agents spend patrolling the border	NO	YES
Provide availability of rapid first aid for USBP agents and IAs	NO	YES
Reduce time required to transport and process apprehended IAs	NO	YES

Although only a 10-acre area within the 20 acre parcel would be initially utilized for FOB components, all impacts are based on the assumption that eventually the maximum footprint (20 acres) withdrawn from BLM would be disturbed, either through future construction activities, or additional parking areas and equipment storage. If the request for land withdrawal from BLM to USBP is denied, the temporary facilities would be removed, and only temporary impacts associated with the Proposed Action Alternative would occur. Active rehabilitation would be implemented as described in Section 5.0, to ensure the project area would return to pre-existing conditions within 3 years of the removal of temporary FOB components.

Table 2-2. Summary of Potential Impacts

Affected Environment	No Action Alternative	Proposed Action Alternative
<b>Land Use</b>	No direct impacts would occur.	Approximately 20 acres would be permanently converted from undeveloped rangeland to USBP facilities.
<b>Soils</b>	No direct impacts would occur.	Minor permanent impacts would result from the removal of 20 acres of a regionally common soil from biological production and creation of impervious surfaces.
<b>Vegetation Communities</b>	No direct impacts would occur.	Minor direct impacts to natural vegetation communities would occur as 20 acres of Chihuahuan desertscrub habitat would be removed. Temporary indirect impacts to adjacent natural vegetation from fugitive dust would occur during construction. Mitigation measures would minimize the potential for the introduction of invasive plant species.
<b>Wildlife Resources</b>	No direct impacts would occur.	No significant loss of habitat to any species would occur as only 20 acres of wildlife habitat would be directly impacted. Only minor impacts related to noise and lighting from construction and daily operations would occur. However, there may be impacts to wildlife habitat in other areas as IA traffic could shift to adjacent USBP AOR's.
<b>Protected Species and Critical Habitat</b>	No direct impacts would occur.	No Federally protected species would be affected. Minor direct or indirect impacts to state and BLM protected species populations may occur. However, there may be impacts to other areas as IA traffic could shift to adjacent USBP AOR's. Mitigation measures would minimize the potential for adverse impacts to state and BLM species. No critical habitat is present in the project area.
<b>Aesthetic Resources</b>	No direct impacts would occur.	Minor direct impacts to visual resources would occur on BLM land. Long term benefits from the reduction of IA traffic, trash, and habitat degradation on BLM lands surrounding the project area would actually support the goal of preserving the character of the lands.
<b>Air Quality</b>	No direct impacts would occur.	Short-term and minor impacts to air quality would occur during construction. Long term impacts from vehicle and aircraft emissions, as well as related fugitive dust, would remain less than significant.
<b>Water Resources</b>	No direct impacts would occur.	A National Pollutant Discharge Elimination System (NPDES) permit would be required and a Stormwater Pollution Prevention Plan (SWPPP) would be implemented prior to construction. Only minor indirect impacts from anticipated operational use of water are expected. Installation of a septic system would require a permit to satisfy and adhere to the New Mexico Liquid Waste Program and not result in adverse impacts to water quality. Stormwater retention/detention measures would be incorporated as needed to eliminate adverse runoff impacts to adjacent properties.
<b>Cultural Resources</b>	No direct impacts would occur.	No impacts to cultural resources are anticipated as none are located in the project area. Potential unknown sites that may be discovered during construction would initiate further Section 106 coordination.

Table 2-2, continued

<b>Affected Environment</b>	<b>No Action Alternative</b>	<b>Proposed Action Alternative</b>
<b>Socioeconomics</b>	No direct impacts would occur.	No changes to local employment rates, poverty levels, or local incomes would occur as a result of this project. No “environmental justice” or “protection of children” issues are expected.
<b>Noise</b>	No direct impacts would occur.	Minor temporary increases in noise would occur during construction. Minor increases to ambient noise levels due to operational activity, particularly helicopter flights, are expected. Emergency and backup generators would be sound-proofed with barrier walls of sufficient height and material that would substantially reduce the generator noise.
<b>Solid Waste and Hazardous Material</b>	No direct impacts would occur.	No known hazardous materials are located on the parcel. Potential for minor adverse impacts during construction would be minimized with Best Management Practices (BMPs). ASTs would have the potential to increase hazardous wastes impacts, however they would be managed through a construction and operational spill prevention plan.

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**SECTION 3.0**  
***AFFECTED ENVIRONMENT AND CONSEQUENCES***





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## 3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

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### 3.1 PRELIMINARY IMPACT SCOPING

This section of the DEA describes the natural and human environment that exists within the project area. As per CEQ guidance (40 *CFR* 1501.7 [3]), only those parameters that have the potential to be affected by the Proposed Action Alternative are described. Due to the lack of an impact on a resource from the proposed project or because a resource is not located within the project area, some topics are limited in scope. These resources are not addressed for the following reasons:

- Communications: No activity conducted as a result of the Proposed Action Alternative would affect current communications systems in the area.
- Climate: No activity conducted as a result of the Proposed Action Alternative would affect nor be affected by the climate.
- Geologic Resources: The Proposed Action Alternative involves only disturbances to the topsoil layers and shallow excavation. Any potential impact would be negligible and localized. No impacts will occur on the region's geology.
- Wild and Scenic Rivers: The Proposed Action Alternative would not affect any designated Wild and Scenic Rivers, because no rivers designated as such are located within or near the project area.
- Unique and Sensitive Areas: The Proposed Action Alternative would not affect nor be affected by unique and sensitive areas within Luna County, as none are located within the general vicinity of the project area. The closest such resource is Pancho Villa State Park, located near Columbus, New Mexico approximately 25 miles west of the project area.
- Wetlands and Other Waters of the U.S.: The Proposed Action Alternative would not affect any wetlands or other waters of the U.S., because none are located within or near the project area.
- Prime Farmland: The Proposed Action Alternative would not affect any prime farmlands or farmland of statewide importance, because soils designated as such are not located within or near the project area.

- Transportation (public roads): The Proposed Action Alternative is located in a remote region of New Mexico (approximately 25 miles from the nearest population center with 50 or more people), no new roads would be constructed, and no impacts on traffic patterns are expected. Although vehicular activity to and from the proposed FOB would occur, any increase would be negligible and localized.

## 3.2 LAND USE

### 3.2.1 Affected Environment

General land uses within the project area were assessed using the U.S. Geological Survey (USGS) landcover/landuse maps (USGS 1986, 2004) and the BLM, Las Cruces District Office *Mimbres Resource Management Plan* (MRMP) (BLM 1993). The property and the surrounding areas are part of a four-county area known as the Mimbres Resource Area (MRA). The area is also commonly known as the Mimbres Valley. Land use practices within the MRA are guided by the MRMP and are based on two broad principles: multiple use and sustained yield. Multiple use is the management of various surface and subsurface resources that will best meet the present and future needs of the U.S. Sustained yield is the ability to maintain an annual or periodic yield consistent with the use (BLM 1993). Managed resources typically include:

- livestock grazing
- fish and wildlife development and utilization
- industrial
- mineral production
- outdoor recreation
- watershed protection
- wilderness preservation
- preservation of public values

The 20-acre parcel identified for land withdrawal, including the project area, is managed by BLM and is not developed. A small portion on the northeastern corner of the parcel is made up of NM 9 ROW. The remaining portions, including the entire project area, are undeveloped range land utilized for cattle grazing. Adjacent properties to the east, west, and south are range land comprised of Chihuahuan desertscrub. NM 9 ROW transects the northern boundary of the project area. The adjacent property to the northeast of NM 9

is a disturbed transportation and utility ROW for NM 9. A decommissioned railroad bed is also located northeast of the site and parallel to NM 9.

### **3.2.2 Environmental Consequences**

#### **3.2.2.1 Alternative 1: No Action Alternative**

Under the No Action Alternative, a FOB would not be constructed. The Deming Station would continue to operate administrative and logistical support from its headquarters in Deming; therefore, there would be no change to existing land use as a result of this alternative. The potential for continued indirect impacts to the natural environment and current land use resulting from IA traffic would continue.

#### **3.2.2.2 Alternative 2: Proposed Action Alternative**

Under the Proposed Action Alternative, the existing land uses would be altered by USBP activities. Conceptual layout estimates suggest that 10 acres of impervious surfaces would result from construction activities (e.g, modular buildings, driveway, parking, helipad, and other supporting structures); however, it is possible that in the future undeveloped portions of the 20-acre parcel would be covered with gravel and thus, would be considered pervious. Therefore, construction of the FOB would permanently convert approximately 20 acres of undeveloped rangeland, utilized for cattle grazing, to developed land use. However, such an impact would be negligible when compared to the vast areas of grazing range land available in the region, coupled with BLM's approval of the land withdrawal and the potential benefits of enhanced USBP operations in the region.

The Proposed Action Alternative would not impact regional land use plans and would not significantly affect those resources that are required for support of, or benefit to, the current land use; therefore, the Proposed Action Alternative would not significantly impact land use. While unquantifiable, enhancing the effectiveness of USBP operations provided for in the Proposed Action Alternative would also result in indirect beneficial impacts throughout lands in the southern portion of the Deming Station's AOR by contributing to the reduction in disturbance of land use by IA traffic.

### 3.3 SOILS

#### 3.3.1 Affected Environment

Only one soil, Upton gravelly sandy loam, underlies the project area. This soil type consists of well drained soils with high runoff and moderate to moderately slow permeability. The depth to a restrictive feature is 7 to 20 inches below the ground surface (bgs), and available water capacity to a depth of 60 inches bgs is very low, and shrink swell potential is low. There is no annual flooding or ponding. The minimum depth to a water table is greater than 6 feet bgs. This soil component is not a hydric soil (NRCS 2007).

Upton soils are alluvium derived from limestone, sandstone, and shale. The Upton gravelly sandy loam comprises approximately 96,576 acres of Luna County. The typical profile is:

- 0 to 6 inches: gravelly sandy loam;
- 6 to 13 inches: gravelly loam;
- 13 to 36 inches: cemented; and
- 36 to 60 inches: very gravelly loam (NRCS 2007)

Upton soils are not limited for small dwellings, with or without basements, but are somewhat limited for small commercial buildings due to slope (NRCS 2006). These soils are also limited for septic system absorption fields due to slow water movement (NRCS 2007), which would limit the ability of discharged water to efficiently spread throughout the leach field. Typically septic systems installed in such soil types require excavation of existing soils and replacement with engineered soils (those with adequate absorption rates) in the leach field to facilitate the absorption process. A soils map is provided as Figure 3-1.

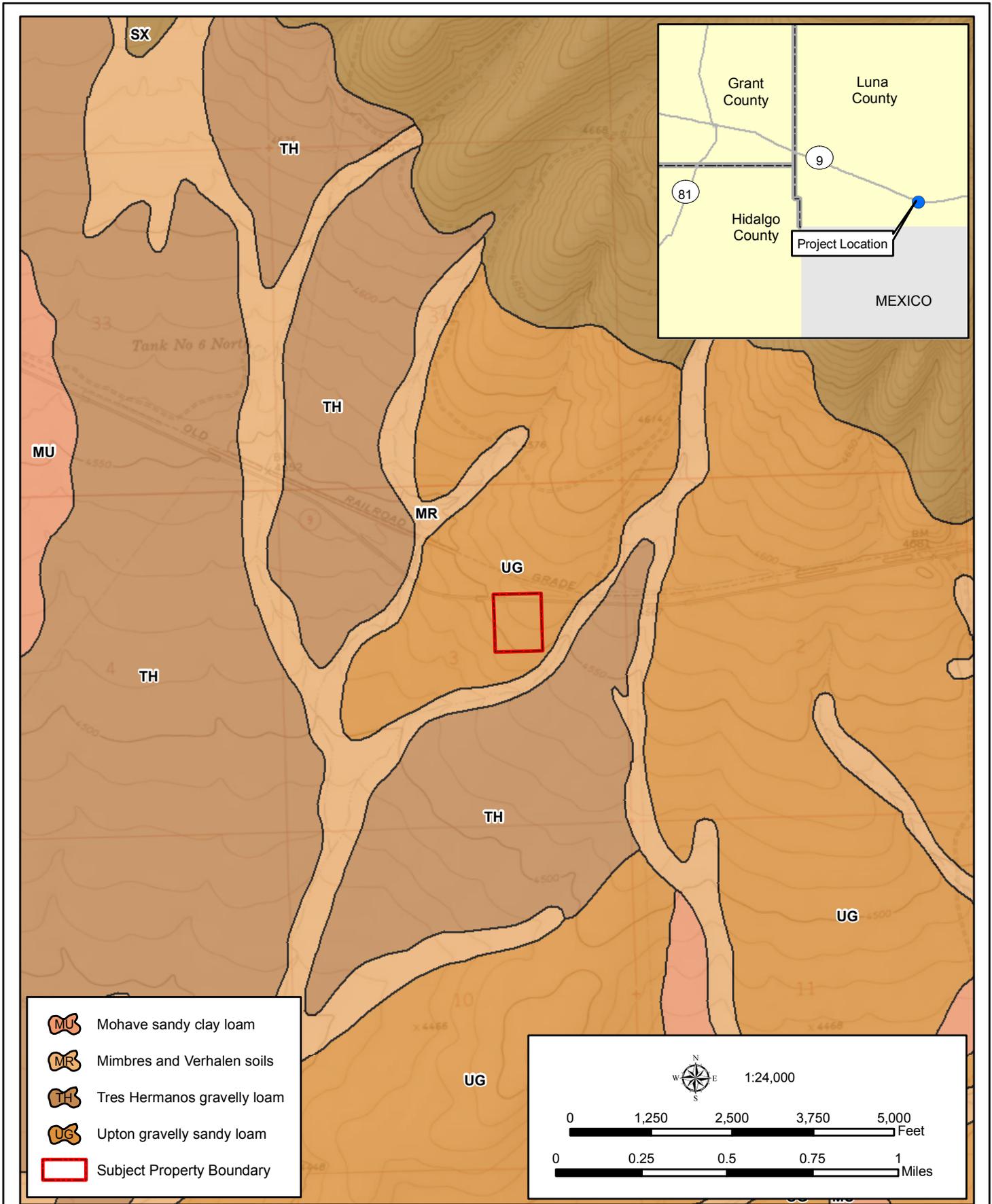


Figure 3-1: Soils Map



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### **3.3.2 Environmental Consequences**

#### **3.3.2.1 Alternative 1: No Action Alternative**

With the implementation of the No Action Alternative, there would be no direct impacts to soils. Many soils within the region are moderately to extremely susceptible to erosion due in part to their high sand content, alluvial nature, and slope. The potential for continued indirect impacts to the natural environment resulting from altered patterns of erosion due to paths, trails, and new illegal roads created by IA traffic and subsequent USBP enforcement activities would continue.

#### **3.3.2.2 Alternative 2: Proposed Action Alternative**

Ground disturbance would be necessary to construct and implement the Proposed Action Alternative, and would directly result in permanent impacts to the 20-acre site, all of which is comprised of Upton gravelly sandy loam. No permanent impervious surfaces would be created during the temporary stage of the Proposed Action Alternative. Upon completion of the permanent phase of construction, the Proposed Action Alternative would remove 10 acres of soil from biological production and create surfaces impervious to water absorption. The remaining 10 acres would be comprised of natural vegetation until needed (*i.e.* additional parking or equipment storage). The construction of the proposed FOB ground surface would not cause substantial soil erosion, since drainage features and appropriate stormwater retention/detention measures would be installed as necessary. Placement of gravel would mostly eliminate soil erosion from prop wash at the helipad. Helicopter operations would result in some soil erosion in the immediate vicinity of the FOB, as helicopters approach and takeoff from the helipad. However, any such impacts would remain minor and insignificant to the region, as the greatest threat of erosion from prop wash is at the point at which the helicopter lands.

Temporary impacts would consist of possible soil erosion during construction activities; however, these impacts would be reduced to a less than significant level through the use of BMPs, as described in Section 5.0, and due to the short duration of the construction process. Due to the abundance of Upton gravelly sandy loam in the region (over 96,000 acres), and the implementation of conservation measures to reduce or eliminate soil

erosion, the permanent loss of 20 acres would result in less than a 1 percent loss of a regionally common soil; therefore, potential impacts to soils would not be considered significant.

A Stormwater Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) under the Clean Water Act's (CWA) NPDES would be required for all construction sites greater than 1 acre (33 U. S. Code [U.S.C.] §1342). These and other mitigation measures proposed to reduce or minimize erosion are discussed in Section 5.0.

### **3.4 WATER RESOURCES**

#### **3.4.1 Affected Environment**

The project area is located within the Hachita-Moscós Basin, a group of geohydrologic subbasins that covers an area of about 665,600 acres (New Mexico Water Resources Research Institute [NMWRRRI] 2000). This basin encompasses the southwestern-most portion of Luna County and underlies the project area. Subsurface flow in the basin generally follows the topography of the ephemeral surface flow of Wamel's Draw flowing southeast into Mexico.

Groundwater recharge for this basin are generally dependant on annual precipitation alone and are estimated to measure 4,869 acre-feet per year (NMWRRRI 2000). However, there is little development within this portion of the Hachita-Moscós Basin, the majority of water withdrawals are in support of cattle grazing. Wamels Draw and Hole Canyon are two nearby major ephemeral stream systems within the basin. No drainages or washes are located within the project area. Variable alkali and salinity hazards are the major issues concerning water quality within the basin. Therefore, the sufficiency of good quality water is likely the major concern of water resource users.

### **3.4.2 Environmental Consequences**

#### **3.4.2.1 Alternative 1: No Action Alternative**

The No Action Alternative would not result in any short or long-term impacts to surface hydrology or groundwater.

#### **3.4.2.2 Alternative 2: Proposed Action Alternative**

Under the Proposed Action Alternative, water would be required for concrete pours and watering of ground surfaces during construction. This water would be transported from commercial sources. The supplier of potable water is not known at this time. Once the land withdrawal is complete, hydrological surveys would be performed. If the results indicate the aquifer could sustain the water requirements of the FOB, a water well would be drilled. Long term net increases in water requirements are anticipated to be minor, because water usage to support daily operations would mostly be shifted from existing requirements at the Deming Station's Headquarters to the FOB.

Construction activities are not expected to increase sedimentation as no streams are located nearby. The proposed FOB site is approximately 1 mile from the nearest ephemeral stream. A SWPPP would be prepared and implemented as partial compliance with the National Pollutant Discharge Elimination System (NPDES) permit process. Implementation of the SWPPP would reduce any short-term impacts on water quality from contaminants or sediments from construction activities. The NOI (permit application) to apply for a Construction General permit and SWPPP would be provided to the Dallas Facility Center Environmental Program Manager for review prior to submittal to the U.S. Environmental Protection Agency (EPA).

The presence of impervious surfaces, such as buildings and pavement, would alter natural drainage patterns of the project area and adjacent properties. While, actual stormwater retention/detention requirements are not yet known, proper measures would be incorporated into the landscape design as described in Section 5.7.

## 3.5 FLOODPLAINS

### 3.5.1 Affected Environment

The proposed FOB site is not located in a 100-year floodplain. There are 100 year floodplains corresponding to small washes that occur approximately 0.5 mile west of the site (Federal Emergency Management Agency [FEMA] 2007).

### 3.5.2 Environmental Consequences

#### 3.5.2.1 *Alternative 1: No Action Alternative*

The No Action Alternative would not impact any floodplains, as there would be no construction of a FOB in this area.

#### 3.5.2.2 *Alternative 2: Proposed Action Alternative*

The FOB would not be built in a 100-year floodplain. There are washes and low lying floodplains approximately 0.5 mile west of the FOB site. However, the FOB would be designed to ensure that proper conveyance of floodwaters is achieved assuring no impacts to nearby floodplains.

## 3.6 VEGETATIVE HABITAT

### 3.6.1 Affected Environment

The project area is located within the Chihuahuan Desert biome (Brown 1994), and the vegetation community at the project site is classified as Chihuahuan desertscrub. A biological survey was conducted in November 2007 to identify and assess the composition, structure, and general health of the vegetation community found within the project area. The project area is located on a hilltop approximately 2 miles northeast of the alluvial plains of the Wamel's Draw area, and is dominated by a mixture of creosote (*Larrea tridentata*), whitethorn acacia (*Acacia neovernicosa*), and tarbush (*Flourensia ternua*). The density of the vegetation is sparse, and vegetative ground cover is estimated to be less than 10 percent.

### **3.6.2 Environmental Consequences**

#### **3.6.2.1 Alternative 1: No Action Alternative**

Under the No Action Alternative, a FOB would not be constructed, and no vegetation communities would be disturbed. However, without added logistical support provided by a remote FOB, USBP operations would continue to be limited in the remote areas of the Deming Station's AOR. The potential for continued indirect impacts to the natural environment resulting from the degradation and destruction of vegetation as a result of paths, trails, and illegal roads created by IA traffic and subsequent USBP enforcement activities would continue.

#### **3.6.2.2 Alternative 2. Proposed Action Alternative**

No protected or rare plant species were observed during the 2007 survey. The project area is located on land dominated by regionally common and abundant plant species; therefore, impacts to native vegetation communities would be minimal when compared to the abundance of similar habitat surrounding the project area. Temporary indirect impacts to natural vegetation related to fugitive dust generated during construction would be minimized by watering of the site's surfaces and the use of BMPs as described in Section 5.0, and would not substantially impair the respiration or photosynthesis of adjacent vegetation over the long term. Potential dust emissions as a result of the helicopter landings and takeoffs would be eliminated or greatly reduced, because the entire surface would be covered with either gravel or pavement.

The Proposed Action Alternative would require artificial lighting around the perimeter of the FOB site. The total number of lights and their illumination power is not presently known. However, the proposed lighting would be shielded and directed away from native vegetation to limit light trespass outside of the project area. Given the small size of the parcel to be developed (20 acres), and the amount of similar vegetation communities in the surrounding area, the impacts to vegetation from lighting would be minor. Overall, only minor impacts to native plant communities would occur as a result of the Proposed Action Alternative. However, there may be indirect impacts to natural vegetation communities in other areas as IA traffic could shift to adjacent USBP AOR's.

### **3.6.3 Non-native and Invasive Plants**

A review of the USGS (2005) Southwest Exotics Database produced two records of exotic plants near the project area. The Malta starthistle (*Centura melitensis*) is an invasive non-native plant that is not palatable and replaces native bunchgrasses with the potential to lead to erosion. Malta starthistle populations are found in the Deming Station's AOR along New Mexico Highway 180 (north of the City of Deming). African rue (*Peganum harmula*), was first reported in New Mexico, and has since spread to other states where it competes with native forage plants and degrades wildlife habitat. However, invasive non-native plant species were not observed within the project area during the biological survey.

#### **3.6.3.1 Alternative 1. No Action Alternative**

No construction would take place as a result of the No Action Alternative; therefore, no direct impacts associated with non-native species would occur. IA traffic would continue to create new roads and trails providing newly disturbed areas for non-native and invasive plant species to colonize. Furthermore, IA traffic (*i.e.*, vehicular and pedestrian) can transport seeds of non-native species, thus introducing additional non-native species to the region.

#### **3.6.3.2 Alternative 2. Proposed Action Alternative**

No non-native and invasive species were observed in the project area during the 2007 survey. Development of the entire FOB site, including surfacing undeveloped areas within the project area with gravel, would ensure that non-native, invasive plant species do not become established in the project area. Construction equipment would be cleaned prior to entering and departing the project area to minimize the spread and establishment of non-native invasive plant species from vehicular traffic. Therefore, no direct impacts to natural communities as a result of the spread and establishment of non-native species are expected as a result of the Proposed Action Alternative. However, there may be indirect impacts in other areas as IA traffic could shift to adjacent USBP AOR's.

## 3.7 WILDLIFE AND AQUATIC RESOURCES

### 3.7.1 Affected Environment

The Chihuahuan Desert is known for extreme temperature changes, from nighttime lows below freezing during the winter to daytime high temperatures above 100 degrees Fahrenheit during the summer (Brown 1994). Many of the animal species found in this community are nocturnal species that remain underground where temperatures are cooler during the hot, arid days.

Mammals typically associated with the Chihuahuan Desert include large hooved mammals such as mule deer (*Odocoileus hemionus*), collared peccary (*Tayassu tajacu*), and pronghorn (*Antilocapra americana*). Common carnivorous mammals in the area include coyote (*Canis latrans*) and kit fox (*Vulpes velox*) (Burt and Grossenheider 1976). Rodents make up the largest order of mammals that occur in the area including Mexican ground squirrel (*Spermophilus mexicanus*), Botta's pocket gopher (*Thomomys bottae*), desert pocket gopher (*Geomys arenarius*), kangaroo rats (*Dipodomys* sps.), and approximately 17 other species of mice and rats (Findley *et. al* 1975). Hares and rabbits common to the area include black-tailed jackrabbit (*Lepus californicus*) and desert cottontail (*Sylvilagus auduboni*).

Birds typically associated with Chihuahuan Desertscrub that would be expected to occur in southern Luna County include red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*), American kestrel (*Falco sparverius*), Gambel's quail (*Callipepla gambelii*), scaled quail (*Callipepla squamata*), western burrowing owl (*Athene cunicularia*), Chihuahuan raven (*Corvus cryptoleucus*), loggerhead shrike (*Lanius ludovicianus*), greater roadrunner (*Geococcyx californianus*), cactus wren (*Campylorhynchus brunneicapillus*), great-tailed grackle (*Quiscalus mexicanus*), and numerous passerine species (Peterson and Zimmer 1998). In addition, there are playas in this region that are dry for much of the year, usually containing water only after late summer and fall rains. The playas are an important stopover for foraging of migrating

shorebirds, sandhill cranes (*Grus canadensis*), and several species of ducks (New Mexico Wilderness Alliance 2006).

Many common species of amphibians can be found in southern Luna County, including the western spadefoot toad (*Spea multiplicata*), bullfrog (*Rana catesbiana*), and several species of true toads (*Bufo* spp.) (Stebbins 2003). Common reptiles include many lizard species, such as whiptail lizards (*Aspidoscelis* spp.), side-blotched lizard (*Uta stansburiana*), greater earless lizard (*Cophosaurus texanus*), roundtail horned lizard (*Phrynosoma modestum*), and several species of spiny lizards (*Sceloporus* spp.). Approximately 36 species of snakes inhabit Luna County, including the western diamondback rattlesnake (*Crotalus atrox*), prairie rattlesnake (*Crotalus viridis*), glossy snake (*Arizona elegans*), gopher snake (*Pituophis melanoleucus*), and night snake (*Hypsiglena torquata*). The most common turtle found in the Chihuahuan Desert is the desert box turtle (*Terrepenne ornate luteola*). However, no reptiles or amphibians were observed during the biological field survey.

### **3.7.2 Environmental Consequences**

#### **3.7.2.1 Alternative 1: No Action Alternative**

No direct impacts are expected to occur on wildlife or their habitats if the No Action Alternative is implemented. The potential for continued indirect impacts to the natural environment resulting from degraded habitat due to paths, trails, and new illegal roads created by IA traffic and subsequent USBP enforcement activities would continue.

#### **3.7.2.2 Alternative 2: Proposed Action Alternative**

Small mammals (e.g., mice, kangaroo rats) and reptiles (e.g., lizards, snakes) would be directly impacted by the Proposed Action Alternative. The greatest movement of small animals generally happens when a disturbance such as grading, grubbing, or construction occurs. Mobile animals escape to areas of similar habitat, while other slow or sedentary species of reptiles, and small mammals could be lost (Busnel and Fletcher 1978). Due to the presence of locally and regionally abundant wildlife habitat adjacent to the project area, any displacement or reduction in the number of animals would have

minimal impacts on animal communities. Furthermore, due to the minimal area (20 acres) of Chihuahuan desertscrub habitat that would be impacted by the Proposed Action Alternative and the low diversity of plant species to support wildlife at the project site, impacts on foraging habitat and ground nesting habitat would also be minimal. No long term impacts on small mammals, reptiles, or bird populations would be expected.

The Migratory Bird Treaty Act (MBTA) requires that Federal agencies coordinate with the U.S. Fish and Wildlife Service (USFWS) if a construction activity would result in the “take” of a migratory bird. In accordance with compliance measures of the MBTA, environmental measures identified in Section 5.3 would be implemented if construction or clearing activities were scheduled during the nesting season (typically March 1 to September 1).

Lighting would attract or repel various wildlife species within the vicinity of the project area. The presence of lights within the project area could also produce some long term behavioral effects, although the magnitude of these effects is not presently known. Some species, such as insectivorous bats, may benefit from the concentration of insects that would be attracted to the lights. Continual exposure to light has been proven to slightly alter circadian rhythms in mammals and birds. Studies have demonstrated that under constant light, the time an animal is active, compared with the time it is at rest, increases in diurnal animals but decreases in nocturnal animals (Carpenter and Grossberg 1984). Outdoor lighting can disturb flight, navigation, vision, migration, dispersal, oviposition, mating, feeding and crypsis in some moths. In addition, it may disturb circadian rhythms and photoperiodism (Frank 1988). 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). While the number of lights within the boundary of the proposed FOB site is not presently known, artificial lighting concentrated around a single 10-acre developed area would not significantly disrupt activities of wildlife population across the region, since similar habitat is readily available to the east, west and south for wildlife relocation. Finally, construction activities would be limited primarily

to daylight hours, whenever possible; therefore, construction impacts on wildlife would be insignificant, since the highest period of movement for most wildlife species occurs during night time or low daylight hours.

Periodic noise from construction activities and subsequent operational activities, such as helicopter takeoffs and landings, would have moderate and intermittent impacts on the wildlife communities located adjacent to the project area. However, because similar habitat is readily available, wildlife would easily relocate. Vehicle traffic on NM 9 currently influences the behavioral responses of wildlife in the area. Conservative estimates indicate only 205 vehicles travel pass the project area on a daily basis. Upon completion of the proposed FOB, the number of vehicles may increase slightly, yet would not result in a substantial increase in vehicle noise. A behavioral response to noise varies among species of animals and even among individuals of a particular species. Variations in response may be due to temperament, sex, age, or prior experience. 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). Over the long term, wildlife populations that have not already habituated to noise generated by NM 9 would adapt to the normal operations conducted at the FOB, and would typically avoid human interaction. However, mitigation measures and establishment of flight plan protocols outlined in Section 5.8, as it relates to noise, would ensure that these impacts remain minor over the long term.

### **3.8 THREATENED AND ENDANGERED SPECIES**

#### **3.8.1 Affected Environment**

##### **3.8.1.1 Federal Species**

USFWS responsibilities under the ESA include: (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research on, and recovery efforts for, these species; and (4)

consultation with other Federal agencies concerning measures to avoid harm to listed species.

In addition, the USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The candidate (C) designation includes those species for which the USFWS has sufficient information on hand to support proposals for listing as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity. Candidate species and Species of Concern currently have no legal protection under the ESA. However, they may be protected under other Federal or state laws.

A total of seven Federally endangered, threatened, and candidate species occur in Luna County (USFWS 2006). Of these, three are listed as endangered, two as threatened, one delisted, and one candidate species (Table 3-1). These species are southwestern willow flycatcher (*Empidonax traillii extimus*), yellow-billed cuckoo (*Coccyzus americanus*), bald eagle (*Haliaeetus leucocephalus*), northern aplomado falcon (*Falco femoralis septentrionalis*), beautiful shiner (*Cyprinella formosa*), Chiricahua leopard frog (*Rana chiricahuensis*), and Mexican gray wolf (*Canis lupus baileyi*). None of these species were observed in the project area during the biological survey.

**Table 3-1. Federally Listed and Candidate Species Potentially Occurring within Luna County**

Common Name Scientific Name	Listing Status	Habitat	Potential to Occur within the Project area
<b>BIRDS</b>			
<b>Bald eagle</b> <i>Haliaeetus leucocephalus</i>	DM	Associated with streams and lakes. Often winter visitor.	<b>No</b> - No streams or lakes are located near the project area.
<b>Northern aplomado falcon</b> <i>Falco femoralis septentrionalis</i>	E (NEP)	Open terrain with scattered trees and relatively low ground cover.	<b>No</b> – No grassland habitat is present within the project area.
<b>Southwestern willow flycatcher</b> <i>Empidonax traillii extimus</i>	E	Riparian habitats of dense willows and tamarisk with overstory of cottonwood.	<b>No</b> – Suitable riparian habitat not present in project area.
<b>Yellow-billed cuckoo</b> <i>Coccyzus americanus</i>	C	Large continuous blocks of mature cottownwood/willow dominated riparian habitat.	<b>No</b> – Suitable riparian habitat not present in project area.
<b>MAMMALS</b>			
<b>Mexican gray wolf</b> <i>Canis lupus baileyi</i>	NEP	Adaptable to a variety of habitats, water is an important habitat feature.	<b>No</b> – Natural occurring populations extirpated from the southwest (63 FR 1752).
<b>AMPHIBIANS</b>			
<b>Chiricahua leopard frog</b> <i>Rana chiricahuensis</i>	T	Water sources, such as rocky streams, stock tanks and ponds.	<b>No</b> – No known populations near the project area. Suitable aquatic habitat not located within the project area.
<b>FISHES</b>			
<b>Beautiful shiner</b> <i>Cyprinella formosa</i>	T	Had been known to occur in the Mimbres River – thought to be extirpated from New Mexico.	<b>No</b> – Suitable aquatic habitat not located within the project area.

Legend: E–Endangered T–Threatened C–Candidate NEP–Nonessential Experimental Population DM–Delisted Taxon, Recovered, Being Monitored First Five Years

Source: Degenhardt *et al.* 1996; New Mexico Department of Game and Fish (NMDGF) 2004; USFWS 2005 a-b, 2006; Young *et al.* 2005

There are also 17 Species of Concern listed by USFWS that occur in Luna County. Species of Concern are taxa for which further biological research and field study are required to determine their conservation status or are considered sensitive, rare, or declining on lists maintained by Natural Heritage Programs, State wildlife agencies, other Federal agencies, or professional/academic scientific societies. Species of Concern have no protection under the ESA, but are included for planning purposes only. A list of these species is provided in Appendix B.

The project area was analyzed for suitability in supporting Federally protected species. Suitable habitat to support six of these species is not present. Large blocks of densely vegetated riparian habitat are not present, removing the potential for southwestern willow flycatcher and yellow-billed cuckoo to utilize the project area. No streams, lakes or riparian areas are present; therefore the bald eagle, beautiful shiner, and Chiricahua leopard frog are not supported in the project area.

On July 26, 2006 the USFWS announced a final rule to reintroduce the northern aplomado falcon in historical habitats in southern New Mexico and Arizona (Federal Register Volume 73, No. 143). Under this ruling, the northern aplomado falcon is being re-established under Section 10 (j) of the ESA, and is classified as a nonessential experimental population. The geographic boundary for the ruling includes all of New Mexico and Arizona, and the population is treated as threatened under the ESA. In August 2006, this program started with the re-introduction of 11 individuals released in south central New Mexico.

The project area was evaluated for its suitability as northern aplomado falcon habitat based in part on the Aplomado Falcon Habitat Assessment. This study was conducted by the New Mexico Cooperative Fish and Wildlife Research Unit, and was designed to provide land managers with information that would assist them in making validation decisions regarding the predictive habitat model. The approach was to dissect a predictive model and evaluate the components of suitability values (Young *et al.* 2005). In New Mexico, northern aplomado falcon habitat is primarily limited to open or isolated grasslands with occasional scrub trees for perching and nesting. In particular, yuccas have been documented to be the preferred nesting platforms in New Mexico. As described earlier, the project area is comprised of Chihuahuan desertscrub habitat. Therefore, it was determined that the project area does not have the potential to support foraging and nesting habitat for the northern aplomado falcon.

Surveys conducted prior to the reintroduction of the Mexican gray wolf into the Blue Range Recovery Area concluded that there are no naturally occurring Mexican gray wolf

populations documented within the recovery area (63 FR 1752). The Blue Range Recovery area encompasses lands between Interstates 40 and 10 in Arizona and New Mexico, including Gila National Forest (all of which is greater than 30 miles north of the project area). Additionally, survey efforts have documented that there are no naturally occurring populations in Mexico that could potentially migrate north into the recovery area. Based on this information, the Mexican gray wolf does not have the potential to occur within the project area; however, suitable foraging habitat does exist.

Although this FOB does not change USBP Patrol operations and is planned to reduce commute time and processing time for apprehended IAs, there is the potential for IAs to shift into more biologically important areas of nearby Hidalgo County. Therefore, the USFWS list of sensitive species in Hidalgo County is provided in Appendix B.

### **3.8.1.2 Critical Habitat**

No critical habitat exists for Federally protected species within the project corridor.

### **3.8.1.3 State Species**

In 1978, the State of New Mexico enacted the Wildlife Conservation Act (WCA) (New Mexico Statutes Annotated 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 (NMDGF 2000). Appendix B provides a list of New Mexico threatened and endangered species with the potential to occur within Luna County.

A total of 19 state threatened and endangered species have the potential to occur within Luna County. Based on an assessment of habitat conditions, four of these 19 species have the potential to occur within the project area: American peregrine falcon (*Falco peregrinus anatum*), common ground-dove (*Columbina passerine pallescens*), reticulated Gila monster (*Heloderma suspectum suspectum*), and the night-blooming

cereus (*Peniocereus greggii* var. *greggii*). Each of these species is briefly discussed in the following paragraphs. However, none of these species were observed during the biological field survey.

The American peregrine falcon occurs throughout the U.S. and almost worldwide (NMDGF 2004). American peregrine falcons usually prefer to nest on cliffs ranging from 150 to 700 feet high (White *et al.* 2002). In New Mexico, they are known to breed in mountainous areas and river canyons. The American peregrine falcon was Federally listed as an endangered species in 1970 (35 FR 16047). With restrictions on organochlorine pesticides and intensive management of the species, the American peregrine falcon was delisted in 1999 (64 FR 46542). The American peregrine falcon remained a New Mexico protected species, although it was downlisted from state endangered to threatened in 1996 (NMDGF 2004). Long term productivity of the American peregrine falcon in New Mexico is still declining (NMDGF 2004). Disturbances to nests are considered a leading threat to the species in New Mexico. The project area represents suitable foraging habitat but, is not considered potential nesting habitat.

The common ground-dove prefers native shrublands at low elevations (NMDGF 2004). According to monitoring reports of this species, the common ground-dove is considered a rare visitor to southern New Mexico (NMDGF 2004). Loss of native habitats, including riparian habitat, may be contributing to this species decline in New Mexico. While the potential for the common ground-dove to occur within the project area does exist, it is not probable as this species is more often associated with riparian areas.

The reticulated Gila monster is the largest native lizard in the U.S. and the only venomous native lizard (NMDGF 2004). The Gila monster spends most of its time in subsurface refugia, and the availability of suitable refugia is an important habitat component (NMDGF 2004). Highway mortality and illegal collection contribute to the decline of this species. While potential habitat is present, the lack of large rocks and numerous burrows within the project area limits the probability for this species to occur.

The night-blooming cereus occurs mostly in sandy to silty gravelly soils in the Chihuahuan desertscrub habitat (New Mexico Rare Plant Technical Council [NMRPTC] 2007). It is typically found growing within shrub species such as creosote, which offer support and cover. Illegal harvesting and loss of habitat have contributed to this species decline. Suitable soil types and nurse plants, such as creosote are present throughout the project area; therefore there is a moderate probability for this species to occur within the project area. The night-blooming cereus is more commonly found near washes.

#### **3.8.1.4 BLM Sensitive Species**

The BLM designates “sensitive” species as those taxa occurring on BLM lands in New Mexico which are considered sensitive by the New Mexico State Office. There are 15 BLM sensitive species identified as potentially occurring within Luna County. A complete list of BLM sensitive species possibly occurring in Luna County is provided in Appendix B. In addition, the list provides a discussion of preferred or potential habitat for each species and a determination of the potential to occur within the project area. Based on an assessment of habitat conditions, five BLM sensitive species have the potential to occur within the project area: ferruginous hawk (*Buteo regalis*), loggerhead shrike (*Lanius ludovicianus*), Texas horned lizard (*Phrynosoma cornutum*), night-blooming cereus, and contra yerba (*Pediomelum pentaphyllum*).

Ferruginous hawks occur in semiarid grasslands with scattered trees, rocky mounds or outcrops, and shallow canyons that overlook open valleys. They may occur along streams or in agricultural areas during migration. Ferruginous hawks feed almost exclusively on small mammals, especially ground squirrels, and jackrabbits. They also feed on snakes, lizards, and large insects (NMDGF 2004). No ferruginous hawks were observed during the biological field survey.

Loggerhead shrikes require open land with lookout perches for hunting; preferring areas with short vegetation, such as pastures, lawns and freshly-plowed fields. They seem to prefer sites with a variety of different types of land uses. They nest in dense, brushy

vegetation, either in hedgerows or isolated trees, adjacent to feeding areas and usually on roadsides (NMDGF 2004). No loggerhead shrikes were observed during the biological field survey.

The Texas horned lizard inhabits flat, open, generally dry country with little plant cover, except for bunchgrass and cactus. Strictly terrestrial, this lizard can bury itself in loose soil that is sandy, loamy, or rocky and seeks shelter under rocks (NMDGF 2004). No horned lizards were observed during the biological field survey.

Contra yerba is a perennial that grows primarily in desert grasslands or among creosote bushes in sandy or gravelly loam soils. It is found at 4,400 to 6,600 feet above mean sea level (NMRPTC 2007). No contra yerba was observed during the biological field survey.

### **3.8.2 Environmental Consequences**

#### **3.8.2.1 No Action Alternative**

No direct or indirect impacts on threatened and endangered species or their habitats would occur if the No Action Alternative is implemented.

#### **3.8.2.2 Proposed Action Alternative**

Although the Proposed Action Alternative is located within the current range of the northern aplomado falcon, there are no suitable grasslands present in the project area; thus, the potential for this species to occur in or near the project area is marginal. Although no aplomado falcons have been sighted in the vicinity of the FOB, there is, however, suitable habitat less than a mile from the FOB site, and Wamel's draw contains a large area of falcon habitat approximately 2.5 miles from the site. However, the FOB construction and operation would not affect the habitat suitability at those locations; therefore, the Proposed Action Alternative would have no effect on the northern aplomado falcon. Low altitude helicopter fly-overs could indirectly impact aplomado falcon nesting habitat in these areas. USBP would be instructed not to

perform low altitude fly-overs in these areas during breeding season (March 1-September 1), whenever practicable.

Based on the presence of supporting habitat, four state protected and five BLM sensitive species have the potential to occur within or near the project area. Potential construction and operational related impacts to the ferruginous hawk and the peregrine falcon would not injure any individual, nor significantly affect these raptors or make prey unavailable. Potential impacts to loggerhead shrikes include disturbance of loafing individuals by human activity and minor indirect impacts associated with loss of habitat and subsequent changes to the prey base (e.g., mice, insects, and small birds). Impacts associated with habitat loss resulting from the proposed construction would be minor given the amount of available foraging habitat surrounding the project area. Disturbance of migrating or wintering birds by construction activities could result in the displacement of individuals, but would have no measurable negative impact. The New Mexico WCA requires that transmission lines be designed in a way that minimizes electrocution to all raptors; therefore electrocution-proof power lines or similar designs would be incorporated as a design measure.

The common ground-dove could occur on a rare basis as a resident in adjacent shrublands. The potential for direct impacts through human disturbance would be negligible as breeding habitat is not limiting for this species in the vicinity of the project area. While there is a potential for mortality of pre-fledgling young if a nest is destroyed during construction activities, this would be avoided by complying with the MBTA requirements.

Pursuant to compliance with the MBTA, prior to initiation of construction activities, additional surveys for nesting migratory birds (March 1 through September 1), including the ferruginous hawk, peregrine falcon, loggerhead shrike, and common ground-dove, would occur during the nesting season and active nests would be marked and avoided. Therefore, there would be no impacts on breeding and nesting migratory birds. Furthermore, due to the amount of foraging and nesting habitat available and mitigation

measures that would be implemented, impacts to foraging and loafing habitat would be minor.

Potential impacts on Texas horned lizards and reticulated Gila monsters include direct mortality, loss or alteration of habitat, and harassment. Project activities could result in mortality by vehicles, equipment, and entrapment in cut and fill areas. However, due to the magnitude of potential foraging and burrowing habitat available in surrounding areas, any potential adverse impact would be at the individual level and not approach a magnitude that significantly impacts the local population or species level. Daily inspection of post holes and trenches open during construction would further minimize lizard mortality.

Given the magnitude of available habitat for the night-blooming cereus and contra yerba, only minor impacts on these plant species would occur as a loss of habitat from mechanical disturbance, and permanent alteration of habitat. Prior to construction activities, an additional survey of the project area would occur to determine the presence of newly established plants. If these plants are encountered, an undeveloped area nearby would be reseeded or replanted with nursery stock, as practicable, or the plants would be relocated to a nearby similar habitat type by qualified biologists (*e.g.*, professionals with a degree in plant biology or ecology).

Although the Proposed Action Alternative would potentially impact vegetation utilized by protected species, these impacts would be minimal and are not likely to have adverse effects over a substantial period of time or area. Furthermore, this action would not result in adverse effects on any Federally protected species or critical habitat. Coordination with BLM and NMGDF would occur as necessary for the removal of state and BLM protected plant species observed within the project area prior to construction activities.

As further described in Section 5.3, conservation measures would be incorporated to ensure that potential impacts on any of the BLM and state protected species would

remain at a less than significant level. In addition to those measures described previously, CBP would require the periodic, random inspection of construction operations by qualified biologists. Prior to construction activities, qualified biologists would conduct “tailgate meetings” (onsite meetings with construction crews) for the purposes of educating construction crew personnel on the identification of protected species, sensitive areas, and the importance of avoiding these species. This mitigation measure would provide for an added level of assurance that potential adverse impacts on protected species with the potential to occur within the project area would be minimized.

### **3.9 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES**

#### **3.9.1 Affected Environment**

The National Historic Preservation Act (NHPA) establishes the Federal government’s policy to provide leadership in the preservation of historic properties and to administer Federally owned or controlled historic properties in a spirit of stewardship. NHPA established the Advisory Council on Historic Preservation (ACHP) to advocate full consideration of historic values in Federal decision-making; review Federal programs and policies to promote effectiveness, coordination, and consistency with National preservation policies; and recommend administrative and legislative improvements for protecting our Nation’s heritage with due recognition of other National needs and priorities. In addition, the NHPA also established the State Historic Preservation Officers (SHPO) to administer National historic preservation program on the state level and Tribal Historic Preservation Officer on tribal lands, where appropriate. The NHPA also established the National Register of Historic Places (NRHP).

Section 106 of the NHPA requires Federal agencies to identify and assess the effects of their actions on cultural resources. USBP must consult with appropriate state and local officials, Indian tribes, and members of the public and consider their views and concerns about historic preservation issues when making final project decisions. The historic preservation review process mandated by Section 106 is outlined in regulations issued

by the ACHP. Revised regulations, "Protection of Historic Properties" (36 *CFR* Part 800), became effective January 11, 2001.

### **3.9.2 Cultural History**

A general chronological sequence for the Deming FOB area and surrounding region is outlined below. General syntheses of cultural history for the region have been constructed by Wimberly and Rogers (1977), Whalen (1978), Hard (1986), Carmichael (1986), Anschuetz *et al.* (1990), and MacNeish (1993). Additional information is found in Moore (1996). The cultural history of the area has been divided into several distinctive periods: the Paleoindian period (12,000 to 6,000 BC), the Archaic period (6,000 BC to AD 200), the Formative period (AD 200 to 1,450), and the Historic period (AD 1,450 to Present). Since the only cultural resources located during the current investigations were historic in nature, this discussion of cultural history will focus on the Historic period.

#### **3.9.2.1 Historic Period**

The first Spanish to explore southern New Mexico, beginning in the late 1500s, mentioned the presence of several indigenous groups. In these early descriptions, the identities of the groups are often unclear, mostly because different names are applied to the same groups. Two groups, in particular, are important to this study: the Mansos and the Apaches. Based on early Spanish reports, the Mansos ranged from south of El Paso possibly as far north as Hatch, and as far west as the Florida Mountains south of Deming (Beckett and Corbett 1992). The Mescalero Apaches were the only Native Americans occupying the area at the time of Euro-American colonization. The Mescalero Apaches are an Athapaskan group believed to have migrated from Alaska, establishing themselves in southern New Mexico as early as 1541 (Schroeder 1973).

Early Spanish travel in New Mexico usually followed the Camino Real along the Rio Grande. The earliest caravans reached New Mexico every few years, but by the 1700s, annual caravans passed between Chihuahua and Santa Fe. By 1805, mail service was provided four times a year, and a monthly mail service existed by 1815 (Pratt and

Scurlock 1991). Due to the running conflict with the Apache, however, local European settlement was restricted to El Paso del Norte, where a mission had been established in 1659 (Moore 1996). Hispanics finally established permanent settlements in the Mesilla Valley of the Rio Grande near present-day Las Cruces in the 1800s.

The Salina de San Andres Trail was used by caravans of Mexican traders and citizens (Bowden 1962). The caravans consisted of 25 to 30 carretas and 100 well-armed men. The expeditions occurred several times a year, particularly during the dry season when the crust of salt from the Salina de San Andres was shoveled into the carretas (Bowden 1962). According to Spanish civil law, which carried over into the Mexican period, salt resources were free to the public (Bowden 1962).

The best documented of these entradas is that of Coronado. He explored east-central Arizona and western New Mexico and eventually laid siege to the Zuni pueblo of Hawikku (Bolton 1964; Kirkpatrick *et al.* 1992:59). After colonization efforts by Juan de Oñate in 1598, the conversion of the native population to the Catholic faith began. Kirkpatrick *et al.* (1992:59, citing Wilson *et al.* 1989), state that as early as the 1620s the Franciscans began their efforts to convert the natives in the southern Rio Grande valley to Christianity. The most important of these Franciscans was Father Alonso de Benavides, who established relations with the indigenous Mansos and recommended missionary activity among them. Spanish popularity in the new provinces did not last long. The Pueblo Revolt of 1680 forced colonists and sympathizing Puebloan Indians southward to El Paso del Norte. In 1692 the Spanish launched a campaign to reconquer the parts of New Mexico held by Indians. From the late 1600s to the late 1800s, Apaches frequently raided white and Indian settlements. Several attempts were made by western Europeans to control these hostilities.

During the early nineteenth century, New Mexico (among other regions) was plagued with political and economic instability. Mexico (thus, New Mexico) gained its independence from Spain in 1821. The Mexican-American War (1846-1848) followed, and the U.S. took control of the region after the signing of the Treaty of Guadalupe

Hidalgo (1848). More lands in what is now southern Arizona and New Mexico were acquired through the Gadsden Purchase of 1854 (Kirkpatrick *et al.* 1992:60). A military presence was established in the El Paso area in 1849 to protect the area from Indian attacks. Fort Bliss was formally established in 1854, and, after several abandonments and reestablishments in different locations, was constructed in its current location in 1893 (Harris and Sadler 1993). More unrest came to New Mexico with the Civil War (1861-1862). Soon after the Civil War, the Apaches began raiding settlements (1863-1886). This caused the establishment of many Army posts in southwestern New Mexico. Military camps near the project area included Fort Cummings (1863), Fort Selden (1865), Fort Bayard (1866), and Fort West (1863) (Couchman 1990:168).

Communication routes were continually improved in New Mexico. These were important for economic and military gains in the territory. Although the Civil War in New Mexico, and to a small extent in Arizona, had temporarily severed the services of the Butterfield Overland Mail Company (1857-1861), it reemerged as the principal communication and carrier service to the American Southwest until the railroad reached the El Paso area in 1880-1881.

Near the end of the nineteenth century, southwestern New Mexico prospered through many different types of economic ventures such as railroads, mining, ranching, herding, and agriculture. Mining districts in the region, including Stein's Pass, Shakespeare, Lake Valley, Cooke's Peak, Santa Rita, Tyrone, Hachita, and Apache Hills, provided short-term economic success for the area. Large ranches also were established during this time. Encouraged by rich grama grass range lands and mild winters, ranchers prospered. Some of the principal ranches in the project area vicinity included the WS Ranch (1881), Slocum or Mason Ranch (1870), the Las Uvas Ranch (1888), and the Corralitos (1912) (Wilson 1975:98-106).

In 1912, New Mexico became part of the U.S. However, there was again unrest for the inhabitants of southern New Mexico. The Mexican Revolution and World War I brought more demands on the citizens of the state. The most notable event was Francisco

“Pancho” Villa’s raid (1916) on the small border town of Columbus, New Mexico. His attack was retaliation for U.S. recognition of the Mexican government under Carranza. Pancho Villa’s attack resulted in a punitive 1917 expedition into Mexico by the U.S. Army commanded by “Black Jack” Pershing (Hall and Coerver 1990:77).

With the U.S. involvement in World War I, Camp Cody was established near Deming, New Mexico, in 1917. According to Couchman (1990:237), the installation was named Camp Cody in honor of Buffalo Bill Cody, and soon National Guardsmen from Iowa, Minnesota, Nebraska, and North and South Dakota rode trains to Deming. The 30,000 men who trained there were denoted as the Thirty-fourth (or Sandstorm) Division.

During World War II, Deming was again selected as a training location, only this time for airmen and bombardiers. The Deming Army Air Base was established east of town and training sorties were flown in desolate areas to the north and east where targets had been placed (Couchman 1990:237-38; Kirkpatrick et al. 1992:62). At the same time, concentration and internment camps for Japanese, German, and Italian prisoners of war were found in Lordsburg, Deming, and within the Mesilla Valley.

### **3.9.3 Previous Investigations**

Prior to the fieldwork, a record search was conducted on January 4, 2008 through the Archaeological Records Management System (ARMS) of the New Mexico Preservation Division and the BLM Las Cruces District Office. The record search indicated one previous archaeological survey was performed in the study area by the New Mexico State Highway and Transportation Department in 1995 (New Mexico Cultural Resource Information System [NMCRIS] activity No. 49894). No cultural resources were recorded in the project area during that investigation. One previously recorded site (LA 69111) is documented in the project area, but there are no additional resources in close proximity. Site LA 69111 (El Paso Southwestern Railroad Grade) is listed as eligible for the NRHP and runs north of the project area. This linear site is on file in the ARMS database, but the specific segment near the current project area had not been documented.

### 3.9.4 Current Investigation

An archaeological survey of the project area was conducted on January 16, 2008. The survey was performed by walking 15-meter (50-foot) interval pedestrian transects oriented north-south. Cultural materials were documented on Laboratory of Anthropology site forms and plotted using handheld global positioning system (GPS) devices.

LA 69111, an NRHP eligible site, consists of the remnants of an abandoned railroad line. The El Paso and Southwestern Railroad was constructed in 1902-1903 by Phelps Dodge Corporation, and operated between Douglas, Arizona and El Paso, Texas (Myrick 1970). Its primary use was to transport copper ore between Arizona and El Paso, Texas.

Since the historic grade has been decommissioned and dismantled, this segment of the site retains no structural integrity. Its integrity of setting has been compromised by the deconstruction, as well as the construction of the modern New Mexico State Highway 9. For these reasons, the portion of LA 69111 in the project area is recommended to be a non-contributing portion of the NRHP eligible resource.

LA 158425 is a small historic site consisting of two discrete solder dot hole-in-top type can dumps, a dispersed scatter of solder dot hole-in-top type cans, crockery fragments, and purple bottle glass fragments. It measures 48 meters (157 feet) north-south by 75 meters (246 feet) east-west [2,105 square meters (6,906 square feet)]. The surface of the site is subject to low-energy sheet washing, and there is evidence of occasional livestock grazing. The can dumps have been mildly displaced and the site is estimated to be approximately 75 percent intact. Three wooden stakes are located in the northwestern portion of the site and are suggestive of a tent camp.

The artifact assemblage is representative of a temporary camp associated with the historic railroad approximately 300 meters (984 feet) north of the site. It is likely that the site dates to between 1902 and 1961, during the operational years of the El Paso

Southwestern Railroad. This is a fairly common site type in the region. The site is not known to be associated with important historic personalities or events, and there are no architectural components. Furthermore, the historic debris is not likely to provide useful information concerning historic lifeways. For these reasons, the site is recommended to be not eligible for the NRHP. One isolated occurrence was discovered in the southeast corner of the survey block. It consists of a single secondary white chert flake.

### **3.9.5 Environmental Consequences**

#### **3.9.5.1 Alternative 1: No Action Alternative**

No direct or indirect adverse impacts on cultural resources would occur if the No Action Alternative is implemented, as there would be no ground disturbing activities.

#### **3.9.5.2 Alternative 2: Proposed Action Alternative**

No direct or indirect adverse impacts to cultural resources would occur if the Proposed Action Alternative is implemented. Indirect beneficial impacts may be realized due to the reduction of IAs and IA trails through the Deming AOR that might disrupt cultural resources.

The segment of historic railway, Segment T29SR12W Section 3 of Site LA 69111, is located northeast of the project area and would not be impacted by the Proposed Action. If previously unidentified cultural resources are encountered during this work, the construction contractor should stop all ground disturbing activities in the vicinity of the discovery until an archaeologist is notified and the nature and significance of the find can be evaluated as stipulated in Section 106 of the NHPA. 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 New Mexico SHPO will be notified as soon as possible. The location of the unmarked human burial would be documented, and steps would be taken to comply with the Native American (NAGPRA) Protection and Repatriation Act, as stipulated in 43 CFR Part 10, and appropriate tribal organizations must be consulted.

### 3.10 AIR QUALITY

#### 3.10.1 Affected Environment

The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS), for specific pollutants determined to be of concern with respect to the health and welfare of the general public. NAAQS are intended to protect public health and welfare and are classified as either "primary" or "secondary" standards. The major pollutants of concern, or criteria pollutants, are carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, PM-10, and lead. NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 3-2. Luna County is in attainment for the all the NAAQS (EPA 2007), however, due to unhealthy levels of PM-10 during dust storms, Luna County is under a Natural Events Action Plan (NEAP) for PM-10 exceedances due to high wind events (New Mexico Environmental Department [NMED 2004]).

**Table 3-2. National Ambient Air Quality Standards**

POLLUTANT	STANDARD VALUE	STANDARD TYPE
<b>Carbon Monoxide (CO)</b>		
8-hour average	9ppm (10mg/m <sup>3</sup> )	P
1-hour average	35ppm (40mg/m <sup>3</sup> )	P
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>		
Annual arithmetic mean	0.053ppm (100µg/m <sup>3</sup> )	P and S
<b>Ozone (O<sub>3</sub>)</b>		
8-hour average	0.08ppm (157µg/m <sup>3</sup> )	P and S
1-hour average	0.12ppm (235µg/m <sup>3</sup> )	P and S
<b>Lead (Pb)</b>		
Quarterly average	1.5µg/m <sup>3</sup>	P and S
<b>Particulate&lt;10 micrometers (PM-10)</b>		
Annual arithmetic mean	50µg/m <sup>3</sup>	P and S
24-hour average	150µg/m <sup>3</sup>	P and S
<b>Particulate&lt;2.5 micrometers (PM-2.5)</b>		
Annual arithmetic mean	15µg/m <sup>3</sup>	P and S
24-hour average	65µg/m <sup>3</sup>	P and S
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>		
Annual average mean	0.03ppm (80µg/m <sup>3</sup> )	P
24-hour average	0.14ppm (365µg/m <sup>3</sup> )	P
3-hour average	0.50ppm (1300µg/m <sup>3</sup> )	S

Legend: P= Primary    S= Secondary    ppm = parts per million    mg/m<sup>3</sup> = milligrams per cubic meter of air  
µg/m<sup>3</sup> = micrograms per cubic meter of air

### **3.10.2 ENVIRONMENTAL CONSEQUENCES**

#### ***3.10.2.1 No Action Alternative***

The No Action Alternative would not result in any impacts on air quality because there would be no construction activities.

#### ***3.10.2.2 Proposed Action Alternative***

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and disturbing soils (fugitive dust) while constructing the buildings and installing the new access roads.

Combustible emission calculations were made for standard construction equipment, such as bulldozers, excavators, pole trucks, front end loaders, backhoes, cranes, and dump trucks, using emission factors from EPA-approved emission model NONROAD6.2. Assumptions were made regarding the type of equipment, duration of 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 is presented in Appendix C.

Construction workers will temporarily increase the combustible emissions in the air shed during their commute to and from the project area. Their emissions were calculated in the air emission analysis (Appendix C) and are included in the totals in Table 3-3. Fugitive dust calculations were made for disturbing the soils while excavating, and grading and constructing the roads and structures. Dust can arise from the mechanical disturbance of surface soils. Fugitive dust emissions were calculated using emission factors from the Mid-Atlantic Regional Air Management Association (MARAMA) (2006) and Midwest Research Institute (MRI) (1996). A summary of the total emissions are presented in Table 3-3.

**Table 3-3. Total Air Emissions (tons/year) from Construction Activities**

<b>Pollutant</b>	<b>Total (tons/yr)</b>
CO	48.38
VOCs	8.39
NOx	53.59
PM-10	24.36
PM-2.5	8.39
SO <sub>2</sub>	6.57

Source: GSRC model projections (Appendix C)

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

- Combustion engines of construction equipment;
- Construction workers commute to and from work;
- USBP staff commute to work;
- Supply trucks delivering materials for the construction project; and
- Fugitive dust from job site ground disturbances.

As there are no violations of air quality standards and no conflicts with the state implementation plans, there would be no significant impacts on air quality from the implementation of the Proposed Action Alternative. However, Luna County has implemented a NEAP plan which will require the implementation of Best Available Control Measures (BACMs) to control wind blown dust during construction activities (NMED 2000).

BACMs include but are not limited to: proper and routine maintenance of all vehicles and other construction equipment to ensure that emissions are within the design standards of all construction equipment, re-vegetation of exposed soils, and use of chemical dust suppressants and soil stabilizers. For more details on construction BACMs, please consult: [http://www.nmenv.state.nm.us/aqb/NEAP/BACM\\_list.pdf](http://www.nmenv.state.nm.us/aqb/NEAP/BACM_list.pdf). By using these mitigation measures, air emissions from the Proposed Action would be temporary and should not significantly impair air quality in the region.

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## 3.11 NOISE

### 3.11.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (*i.e.*, hearing loss, damage to structures, etc.) or subjective judgments (*e.g.*, community annoyance). Sound level is usually represented on a logarithmic scale with a unit called the decibel (dB). The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB.

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA (A-weighted decibel is a measure of noise at a given, maximum level or constant state level) louder than the same level of intrusive noise during the day, at least in terms of its potential for causing community annoyance. This perception is largely because background environmental sound levels at night in most areas are also about 10 dBA lower than those during the day.

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

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

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

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

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

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log (d_2/d_1)$$

Where:

$dBA_2$  = dBA at distance 2 from source (predicted)

$dBA_1$  = dBA at distance 1 from source (measured)

$d_2$  = Distance to location 2 from the source

$d_1$  = Distance to location 1 from the source

Source: Caltrans 1998

### **3.11.2 Environmental Consequences**

#### **3.11.2.1 Alternative 1: No Action Alternative**

Under the No Action Alternative, the FOB would not be constructed and there would be no noise impacts resulting from construction activities. However, USBP aircraft operations (primarily helicopter flights) are typically routine and common along the U.S.-Mexico border and in the vicinity of the project area. They are a key element of USBP’s mission to enhance operational control of the border by providing mobility and rapid deployment of personnel and resources.

#### **3.11.2.2 Alternative 2: Proposed Action Alternative**

Noise emissions from the Proposed Action Alternative are segregated into two categories for this analysis: construction activities and ongoing long-term operations.

### **Construction Activities**

The project site is located in a rural area with no sensitive noise receptors within 10,000 feet (Approximately 2 miles). The installation of the FOB would require the use of common construction equipment. Table 3-4 describes noise emission levels for construction equipment which range from 76 dBA to 84 dBA at a distance of 50 feet (Federal Aviation Administration [FAA] 2007).

**Table 3-4. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances<sup>1</sup>**

<b>Noise Source</b>	<b>50 feet</b>	<b>100 feet</b>	<b>200 feet</b>	<b>500 feet</b>	<b>1000 feet</b>
Backhoe	78	72	68	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Auger drill rig	84	78	72	64	58
Bull dozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

1. The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100 to 1,000 foot results are modeled estimates.

Assuming the worst case scenario of 84 dBA, the noise model projected that noise levels of 84 dBA from the auger drill would have to travel 500 feet before they would attenuate to acceptable levels of 65 dBA. To achieve an attenuation of 84 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 140 feet. However, because there are no sensitive noise receptors within 10,000 feet of the project site, the noise impacts from construction activities would be minor and insignificant.

### **Ongoing Operations**

Ongoing operations would include the periodic use of helicopter support. Noise generated by helicopters is largely dependant on the type, load, and altitude. Generally helicopter noise levels range from 90 to 110 dBA (FHWA 2007b) within the immediate

vicinity of take-off and landing areas. Assuming a worst case scenario of 110 dBA, the noise model projected that noise levels of 110 dBA from helicopter landing and takeoff would have to travel 8,500 feet before they would attenuate to acceptable levels of 65 dBA. To achieve an attenuation of 110 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 2,800 feet. The closest sensitive noise receptor is over 10,000 feet from the project site. Therefore, the noise impacts from ongoing helicopter operations would not impact sensitive noise receptors near the FOB.

### **3.12 AESTHETIC RESOURCES**

#### **3.12.1 Affected Environment**

The aesthetic resources within the project area include the characteristic features of the Basin and Range Province, and the natural vegetation of the Chihuahuan Desert Biome (Brown 1994, USGS 2004). Scenic Chihuahuan Desert landscapes with rugged topography are typical of mountain ranges such as the Florida Mountains, the Tres Hermanos Mountains, and the Cedar Mountains. These higher topographic areas create a striking contrast against the Chihuahuan Desert expanses. The low diversity and simple appearance of Chihuahuan Desert vegetation held within relatively flat valleys creates a landscape that changes little in appearance from horizon to horizon. The rural agricultural communities, historic missions, and characteristic architecture contribute to the aesthetic quality of the region.

BLM is the current land manager of the project area, as well as the adjacent lands. BLM manages these lands to ensure that activities preserve the character of the landscape. Lands controlled by BLM are assigned visual resource inventory classes which have a two-fold purpose. First, they serve as an inventory tool that portrays the relative value of the visual resources, and secondly, they serve as a management tool that portrays the visual management objectives. Visual resources of the Mimbres Valley are divided into four Visual Resource Management (VRM) classes (BLM 2006). The project area and vicinity is characterized as VRM Class II. The objective of Class II

is to retain the character of the landscape. Any variation to the character of the landscape must be low and not attract the attention of the casual observer. Changes should match the basic elements (form, line, and texture) found in the predominant natural features of the characteristic landscape. BLM manages these lands to ensure that activities preserve the character of the landscape.

As the land manager, BLM is required to address visual design considerations into all surface disturbing projects regardless of size or potential impact. For highly sensitive areas or high impact projects, an assessment tool known as the “contrast rating process” is used as a project assessment tool during environmental review, but may also be used for other projects where it would appear to be the most effective design tool. A brief visual assessment narrative is usually conducted for projects where no significant impacts are expected (BLM 1998).

### **3.12.2 Environmental Consequences**

#### **3.12.2.1 Alternative 1: No Action Alternative**

No direct impacts on aesthetic resources would occur if the No Action Alternative is implemented. Indirect impacts from trash, graffiti, and general vandalism associated with IA traffic would continue to detract from the visual quality of the region.

#### **3.12.2.2 Alternative 2: Proposed Action Alternative**

The Proposed Action Alternative would result in minor direct impacts to visual resources on BLM land. However, when compared to the long term benefits of reducing IA traffic, trash and habitat degradation on BLM lands surrounding the project area, the Proposed Action Alternative would actually support the goal of preserving the character of the land. Perimeter fencing, buildings and artificial lighting would detract from aesthetic resources where sensitive receptors are present (*i.e.*, residential) and would be visible from distances up to 5 miles depending on the topography. However, there are no sensitive receptors within the vicinity of the project area and no residences are visible from the FOB site. However, there may be indirect impacts to the aesthetic environment in other areas as IA traffic could shift to adjacent USBP AOR's.

Coordination with BLM has been initiated, and if necessary, design plans for the FOB site would be modified slightly to remain consistent with the BLM management goals for visual resources on VRM Class II land. However, the Proposed Action Alternative is not expected to conflict with BLM goals, and because the site is located adjacent to an existing highway (developed land) it would not result in the substantial degradation of visual characteristics to the region; therefore, the Proposed Action Alternative would not significantly impact aesthetic resources.

### **3.13 HAZARDOUS MATERIALS**

#### **3.13.1 Affected Environment**

Solid and hazardous wastes are regulated in New Mexico by a combination of mandated laws promulgated by the EPA and the NMED Hazardous Waste Bureau. A search was conducted on the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List or being considered for the list. A CERCLIS database search and an onsite Environmental Baseline Survey, conducted as part of a Phase I Environmental Site Assessment for the project area did not indicate any waste sites within 1 mile of the project area.

Pursuant to the CWA and the Oil Pollution Act, EPA developed the Oil Pollution Prevention Regulation, Title 40 CFR Part 112, which forms the basis of EPA's Oil Spill Prevention, Control, and Countermeasures Program for the purpose of preventing oil spills from certain aboveground and underground storage tanks. The regulation requires facilities with aboveground and underground petroleum storage to implement a Spill Prevention, Control, and Countermeasures Plan (SPCCP) that addresses the facility's design, operation, and maintenance procedures to prevent spills from occurring, as well as countermeasures to control, contain, clean up, and mitigate the effects of a petroleum spill that could affect water resources. Details of the SPCCP are provided in Section 5.0.

### **3.13.2 Environmental Consequences**

#### **3.13.2.1 Alternative 1: No Action Alternative**

No impacts regarding hazardous waste are expected, as no construction activities would occur.

#### **3.13.2.2 Alternative 2: Proposed Action Alternative**

No evidence of hazardous materials or waste was observed during a Phase I Environmental Site Assessment conducted November 13, 2007. Potential impacts from regulated materials under the Proposed Action Alternative would be dependent upon the FOB components chosen during the design phase.

Measures would be taken to avoid impacting the project area with regulated substances (e.g., anti-freeze, gasoline) associated with the construction efforts. During construction activities, fuels, oils, lubricants, and other regulated materials would be used. Although catch pans would be used when refueling, accidental spills could occur as a result of maintenance procedures on construction equipment. 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 would be limited, and equipment necessary to quickly contain any spills would be present during refueling and equipment maintenance operations.

There is potential for a fuel spill from ASTs containing fuel. Design measures, such as compliant secondary containment measures to reduce potential hazards from spills, would be incorporated into engineering designs as they are finalized.

Solid waste would be properly collected and disposed of, in accordance with the Solid Waste Disposal Act, Public Law 89-272, 79 Statute 997, as amended by the Resource Conservation and Recovery Act, Public Law 94-580, 90 Statute 2795 (1976). Mitigation measures identified in Section 5.1, such as implementation of both a construction phase and operational SPCCP to insure that all solid, liquid, hazardous, and other regulated wastes would be properly disposed of, would be strictly adhered to.

All unregulated wastes (e.g., general trash, manure, and sewage) would be disposed of by a waste disposal contractor per state and local regulations.

### **3.14 SOCIOECONOMICS**

#### **3.14.1 Affected Environment**

##### **3.14.1.1 Population**

The region of influence (ROI) for the project area is defined as Luna County, New Mexico, which is part of the Deming, New Mexico Metropolitan Statistical Area (MSA). Luna County is one of 33 counties in New Mexico. Its 2005 population of 26,632 ranked 18<sup>th</sup> in the state (U.S. Bureau of Economic Analysis [BEA] 2007). This is an increase of 28.4 percent over the revised 1995 census population of 131,776. The racial mix of Luna County is mainly comprised of Caucasians (74.3 percent), followed by people claiming to be some race other than Caucasian, African American, Native American, Asian, Native Hawaiian, or other Pacific Islander (20.2 percent), and people claiming to be two or more races (3.1 percent). The remaining 2.4 percent is split between African Americans, Native Americans, Asians, and Native Hawaiians or other Pacific Islanders. As of the date of this document, more recent data is not available for this area. More than half of the total estimated 2000 population (57.7 percent) claim to be of Hispanic origin (U.S. Census Bureau 2006).

##### **3.14.1.2 Employment, Poverty Levels, and Income**

The total number of jobs in Luna County in 2005 was 10,871, an increase of 18.5 percent over 8,864 jobs in 2001 (BEA 2007). The largest number of people employed in Luna County in 2005 was in Government and Government Enterprises; followed by Retail Trade and Manufacturing (BEA 2007). The 2000 estimated average annual unemployment rate for Luna County was 8.0 percent. This is significantly higher than the estimated 2000 annual average unemployment rate for the State of New Mexico of 4.4 percent (U.S. Census Bureau 2006).

In 2005 Luna County had a per capita personal income (PCPI) of \$19,165. This PCPI ranked 28<sup>th</sup> in the state and was 69 percent of the state average, \$27,889, and 56 percent of the National average, \$34,471. The 2005 PCPI reflected an increase of 7.6 percent from 2004. The 2004-2005 state change was 4.5 percent and the national change was 4.2 percent. In 1995 the PCPI of Luna County was \$12,702 and ranked 29<sup>th</sup> in the state. The 1995-2005 average annual growth rate of PCPI was 4.2 percent. The average annual growth rate for the state was 4.2 percent, and for the nation was 4.1 percent (BEA 2007).

Total Personal Income (TPI) of an area is the income that is received by, or on behalf of, all the individuals who live in that area. In 2005 Luna County had a TPI of \$510,411,000. This TPI ranked 19<sup>th</sup> in the state and accounted for 1.0 percent of the state total. In 1995 the TPI of Luna County was \$288,841,000 and ranked 19<sup>th</sup> in the state. The 2005 TPI reflected an increase of 9.8 percent from 2004. The 2004-2005 state change was 5.9 percent and the national change was 5.2 percent. The 1995-2005 average annual growth rate of TPI was 5.9 percent. The average annual growth rate for the state was 5.4 percent and for the Nation was 5.2 percent (BEA 2007).

### **3.14.2 Environmental Consequences**

#### **3.14.2.1 No Action Alternative**

Socioeconomics in the area would generally remain unchanged under the No Action Alternative. Limited access to the border would impede USBP response, which, in turn, would not enhance apprehension capabilities. The No Action Alternative would not provide additional protection from illegal foot and vehicle traffic, or reduce crime. As illegal activity continues, adverse impacts to the socioeconomic conditions within the ROI would be expected to continue or perhaps increase.

#### **3.14.2.2 Proposed Action Alternative**

No significant effects, direct or indirect, would occur to population or employment, from the implementation of the Proposed Action Alternative. Any expenditures associated with

the project are subject to economic multiplier effects, which would have overall beneficial, temporary impacts to the regional economy.

The Luna County community would benefit from effective enforcement operations across the project area. Overall, implementation of this alternative would be expected to reduce adverse impacts that currently exist on local law enforcement and the emergency response community. The Proposed Action Alternative would contribute to improved protection from illegal vehicle and foot traffic, lower crime rates, and potentially improve the quality of life along the border.

### **3.15 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN**

#### **3.15.1 Affected Environment**

Executive Order (E.O.) 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) was signed in February 1994. This order was intended to direct Federal agencies "...to make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.]..." To comply with the E.O., minority and poverty status in the vicinity of the project was examined to determine if any minority and/or low-income communities would potentially be disproportionately affected by implementation of the Proposed Action. Both low-income and minority populations are prevalent within the ROI.

E.O. 13045 requires each Federal Agency "to identify and assess environmental health risks and safety risks that may disproportionately affect children; and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." This E.O. was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults.

### **3.15.2 Environmental Consequences**

#### **3.15.2.1 No Action Alternative**

Since there would be no additional construction associated with the No Action Alternative, environmental justice and protection of children issues would be unchanged.

#### **3.15.2.2 Proposed Action Alternative**

The majority of the population in Luna County claims to be of Hispanic origin. The average PCPI of the families within the counties along the border is below the state and National PCPI averages. However, no displacement of residential or commercial structures or areas is anticipated as a result of this project, and no significant adverse impacts have been identified that could result from implementation of the Proposed Action Alternative. The project would beneficially affect the entire ROI regardless of race and/or income level by reducing crime in areas where the infrastructure is installed. Therefore, this project would not conflict with the intent of E.O. 12898.

All construction activities would be separated from residential areas by large distances; thus, it is highly unlikely that children would be present within construction zones. Therefore, the actions proposed in this DEA would not result in disproportionately high or adverse environmental health or safety impacts on children. To the contrary, the Proposed Action Alternative would increase the safety of children by decreasing crime and IA traffic in the area.

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**SECTION 4.0**  
**CUMULATIVE IMPACTS**





## 4.0 CUMULATIVE IMPACTS

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This section of the DEA addresses the potential cumulative impacts associated with the implementation of the alternatives and other projects/programs that are planned for the region. The CEQ defines cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). This section continues, “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

USBP has been conducting law enforcement actions along the border since its inception in 1924, and has continuously transformed its methods as new missions, IA modes of operation, 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 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 history of the region through numerous biological and cultural resources surveys and studies.

With continued funding and implementation of CBP’s environmental conservation measures, including environmental education and training of its agents, use of biological and archaeological monitors, 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 would result in cumulative impacts.

The boundaries used to identify the area in which potential cumulative effects could occur are defined as the boundaries of the counties in which the program occurs. Southern New Mexico (Doña Ana, Luna, and Hidalgo Counties) will be referred to as the region of potential cumulative impacts.

In 2001, the INS and Joint Task Force – Six Programmatic Environmental Impact Statement (PEIS) assessed the potential cumulative impacts associated with past and future USBP projects for the entire southwestern border, and is herein incorporated by reference (INS 2001). In summary, the PEIS estimated that in total, 6,900 acres would be disturbed along the southwestern border by 2004. The actual area impacted by USBP projects as of April 2008 has not approached this estimate.

Future TI projects are being planned by USBP throughout the New Mexico stations of the El Paso Sector. A Programmatic EA was prepared to address proposed TI in New Mexico (CBP 2006c). Table 4-1 provides a summary of future USBP TI projects planned within New Mexico. It is anticipated that the proposed TI would be implemented over the next 5 to 10 years.

**Table 4-1. Tactical Infrastructure Projects within New Mexico as Proposed in the El Paso Sector Programmatic EA**

Type of Project	Miles	Acres
All-Weather Patrol Roads (24-foot wide footprint x 316 miles)	316	920
Drag Roads (10-foot wide footprint x 78 miles)	78	95
Permanent Lights (20-ft wide x 30 miles)	30	73
Pedestrian Barrier (20-ft wide x 7 miles)	7	17
Remote Video Surveillance Systems (RVSS) (10,000 square ft x 5 sites)		1
Permanent Vehicle Barriers (8-ft wide x 160 miles)	160	156
<b>TOTAL</b>		<b>1,262</b>

Source: CBP 2006c

Recent Federal mandates require the construction of primary fence along the southwestern border. Within the next 2 years, 225 miles of fence are scheduled to be completed in two phases. Phase I construction would occur in areas that have already been developed (e.g., currently contains permanent vehicle barriers [PVB] or temporary vehicle barriers [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 a 150-foot wide 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.

In the region of potential cumulative impacts, the construction of these fences has already started, and in some places is already completed. Fences on the U.S.-Mexico border proposed to be constructed in the region by the end of calendar year 2008 include approximately 40 miles of vehicle fence in Doña Ana County, replacement of 24.5 miles of PVB with primary pedestrian fence along the U.S.-Mexico border on the east and west sides of the Columbus, New Mexico, POE, construction of 12.8 miles of vehicle fence in Luna County, and 22 miles of vehicle fence in Hidalgo County between Border Monument 59 and Border Monument 69.

In addition to 22 miles of vehicle fence in Hidalgo County, CBP proposes to construct patrol roads and drag roads in the Lordsburg Station's AO. In order to provide access for construction and provide adequate operational and maintenance access to the border areas, 32 miles of access roads would be improved or constructed. The access roads link the primary public transportation routes, NM 81 and Hidalgo County Road 1, with the border. Additionally, 15 staging areas approximately 2 acres each, located north of the U.S.-Mexico border and along access roads, would be utilized during construction activities. The TI is located along the U.S.-Mexico border in the "Boot Heel" region of New Mexico approximately 70 miles from the Lordsburg USBP Station Headquarters. The vehicle fence, all-weather patrol roads and drag roads will be constructed within the

60-foot Roosevelt Reservation along the U.S. - Mexico border. Access roads will be located on private lands.

CBP has also proposed construction of up to ten 40-foot communication and relay towers and up to 10 rescue beacons for the area of potential cumulative impacts. In the future, CBP also proposes to construct an additional 64 miles of vehicle fence, patrol roads, and drag roads in Hidalgo County between Border Monument 40 and Border Monument 59.

CBP is also planning other facilities projects in the region. These projects include the construction of a new Lordsburg USBP Station in Lordsburg, New Mexico. The proposed Lordsburg Station project is approximately 50 miles northwest of the project area. Also planned are improvements to the Columbus and Antelope Wells POEs in Luna and Hidalgo Counties, respectively, as well as new USBP checkpoints planned along Interstate 10 in Doña Ana County and Interstate 25 also in Doña Ana County.

BLM has many past, present and reasonably foreseeable projects for the Las Cruces District Office planning area. The BLM has communicated with USBP on the location of water development projects in the Hatchet and Peloncillo Mountains. Due to the remote and unpopulated area of southern Luna County, there are very few past or future projects other than those conducted by USBP, BLM, farming, and private ranching activities. The Luna County government reports on-going general maintenance on gravel and dirt surface roads. Hidalgo County reports that a chip-seal (road resurfacing) was completed on NM 338 south of Animas, New Mexico (Ellis 2006). NMDGF and Animal and Plant Health Inspection Service Wildlife Services are conducting predator control activities within Habitat Management Plan areas in the Hidalgo County.

The following assessment of potential cumulative impacts is based upon the information provided from the previously listed, past, ongoing and future projects.

#### **4.1 NO ACTION ALTERNATIVE**

The No Action Alternative would not result in direct cumulative impacts on any resource. Therefore, the No Action Alternative would not contribute directly to cumulative impacts of reasonably foreseeable projects in the region.

IA traffic and subsequent USBP activities would continue to impact the human and natural environment, especially in those areas that also lack TI. These additional impacts would occur within an environment that has been impacted by BLM grazing, farming, private ranching, and development in the region. Thus, the No Action Alternative would further contribute to past and ongoing degradation of soils, vegetation communities, and wildlife habitats. Cumulative impacts of IA activity and past and ongoing land use in the region would be moderate to significant depending upon the magnitude of future IA activity. As Luna County has had exceedances for PM-10 due to natural events, air quality has been impacted by projects in the region, and IA traffic is likely to have contributed to these impacts through disturbance of soils and creation of illegal trails. However, with the implementation of other proposed USBP projects in the region, (*i.e.*, fences, lights, and road improvements), IA traffic and their contribution to cumulative impacts would be reduced.

#### **4.2 PROPOSED ACTION ALTERNATIVE**

The Proposed Action Alternative would remove an additional 20 acres of common Chihuahuan desertscrub vegetation community from biological productivity. This development, in combination with past urban development near Columbus, Deming, and Hachita, and approximately 1,297 acres of future development proposed by CBP, would have a cumulative impact on land use, soils, and biological resources in the region. However, due to the limited area of past, present and reasonably foreseeable development in relation to the area of similar lands available, these cumulative impacts would be moderate. The Proposed Action Alternative would also contribute to the beneficial impacts of reducing IA activity within the region.

On April 1, 2008, the Secretary of the DHS, pursuant to his authority under Section 102(c) of IIRIRA, exercised his authority to waive over 30 environmental and other laws and regulations associated with construction of tactical infrastructure along the southwestern border. Although the Secretary's waiver means that CBP no longer has any specific legal obligations under these laws, the Secretary committed DHS to continue to protect valuable natural and cultural resources. CBP strongly supports this and remains committed to being a good steward of the environment. The waiver does not cover the construction of the FOB but does include TI along the U.S.-Mexico Border in New Mexico.

Any ground disturbing activities associated with USBP projects have the potential for impacts to cultural resources; however, relative to the No Action Alternative, only beneficial cumulative impacts to cultural resources would be realized. However, the construction of USBP facilities and infrastructure in the region would reduce IA traffic and allow for USBP enforcement actions to remain focused on the immediate border region. The reduction in IA traffic and subsequent USBP enforcement activities would reduce the likelihood of disturbing cultural resources in the region, providing beneficial cumulative effects on cultural resources.

The implementation of other USBP projects, as well as the Proposed Action Alternative, would have beneficial cumulative socioeconomic impacts on the region. Construction and maintenance activities associated with these projects would result in a minor cumulative economic benefit for the regional economy in terms of expenditures for supplies, and payments to private contractors to support these projects. Additionally, the anticipated increase in agents for the Deming Station's AOR would potentially have a substantial socioeconomic impact on the region.

Numerous projects which include lighting would have permanent cumulative impacts on the wildlife of the area. However, most mobile wildlife would either relocate to an adjacent area or habituate to the lighting (Carpenter and Grossberg 1984). Permanent lighting would be installed at the FOB, at the Lordsburg Station and for approximately

19 linear miles along the U.S.-Mexico Border in the Deming AOR. However, the construction of permanent lights in the region would aid USBP agents in spotting IA traffic and improve USBP enforcement actions in the U.S.-Mexico border region. The implementation of other USBP projects, as well as the Proposed Action Alternative, would have a moderate adverse cumulative impact on visual resources in the region. Additional fences, lights, roads, and the FOB would detract from the openness and underlying nature of Luna and Hidalgo Counties and could cumulatively impact BLM VRM Class I and II areas.

With the number of USBP projects being implemented in the region of potential cumulative impacts, IA traffic could shift to nearby areas. There could be cumulative indirect impacts from shifting of IA traffic into areas of Hidalgo County that lack TI, primarily between Border Monuments 40 and 59.

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**SECTION 5.0**  
**MITIGATION MEASURES**





## **5.0 MITIGATION MEASURES**

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This chapter describes those measures that will be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated as standard operating procedures by USBP on past projects. It is USBP policy to mitigate adverse impacts through the sequence of avoidance, minimization, and finally, compensation. Mitigation measures are presented below for each resource category that would be potentially affected.

### **5.1 GENERAL CONSTRUCTION ACTIVITIES**

BMPs will be implemented as standard operating procedures during all construction activities, such as proper handling, storage, and disposal of hazardous and 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 secondary containment systems that consist of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips.

All wastes will be disposed of in accordance with Federal, state, and local regulations, including proper waste manifesting procedures. Solid waste receptacles will be maintained at construction areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles, which will then be collected and disposed of by a local waste disposal contractor. Safety buffer zones will be designated around all construction sites to ensure public health and safety. No vehicle maintenance would occur on site during construction nor after the FOB is completed.

## **5.2 SOILS**

Suitable fencing will be installed around the perimeter of the facility to contain vehicles and people and prevent accidental impacts to soils on adjacent properties. Vehicular traffic associated with the construction activities and operational support activities will remain on established roads to the maximum extent practicable. The project area will be given special consideration when designing the proposed FOB to ensure incorporation of various BMPs, including weed free straw bales, aggregate materials, and wetting compounds, to decrease erosion. A Construction General Permit, under the NDPES process will be applied for, and a SWPPP will be implemented prior to construction activities. BMPs described in the SWPPP will be implemented during construction to reduce erosion. Furthermore, upon completion of the permanent phase of the FOB, disturbed but undeveloped areas will be surfaced with gravel to minimize erosion. Any undeveloped areas that are not surfaced will be reseeded with native vegetation.

## **5.3 BIOLOGICAL RESOURCES**

In order to comply with the MBTA, pre-construction surveys for migratory bird species during the nesting season (March 1 through September 1) will occur immediately prior to the start of any construction activity to identify active nests. Active nests will be avoided where possible. If construction activities will result in the “take” of a migratory bird, then coordination with the USFWS 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.

Prior to construction activities, an additional survey of the project area will occur to determine the presence of newly established state and BLM protected plants. Subsequently, if plants are located they will be flagged for relocation. As practicable, any newly discovered protected plants will be relocated to a similar habitat nearby.

Survey and relocation efforts will be conducted by qualified biologists (*i.e.*, professionals with a degree in plant biology or ecology).

If a BLM sensitive species or state listed wildlife species are observed in the project area during the construction phase of this project, coordination with BLM and state agencies will occur, as necessary, for the avoidance or relocation of state and BLM protected species. The Project Manager (Dallas Facility Center and U.S. Army Corps of Engineers) will collaborate to ensure representative photographs of BLM sensitive species and state sensitive species of concern are provided to the contractor prior to construction activities.

All equipment will be cleaned prior to entering or leaving the site to reduce the transportation of weedy non-native or invasive vegetative species. In order to limit impacts on surrounding vegetation and wildlife, lights will be backshielded and installed such that the direction of illumination is downward towards the FOB facilities. In accordance with the New Mexico WCA, all transmission poles will be designed so that potential electrocution impacts on raptors are minimized or eliminated. Since the highest period of movement for most wildlife species occurs during night time or low daylight hours, all construction activities will be limited to daylight hours to the extent practicable.

CBP will require the periodic, random inspection of construction operations by qualified biologists. Qualified biologists will conduct “tailgate meetings” (onsite meetings with construction crews) for the purposes of educating construction crew personnel on the identification of protected species and sensitive areas, and the importance of avoiding these species, as well as the importance of wildlife conservation in general. Construction crew personnel will be instructed how to conduct daily inspections of exposed post holes and trenches to further minimize lizard mortality.

## **5.4 CULTURAL RESOURCES**

Although no cultural resources are known to be present within the project area, unanticipated subsurface deposits are possible at any undertaking that disturbs the ground surface. If previously unknown cultural resources are exposed by construction activities associated with the proposed development, work will stop in the immediate vicinity, the resources will be protected, and the SHPO will be notified within 24 hours of discovery. If in consultation with the SHPO it is determined that the resource is significant and cannot be avoided by construction, then an archaeological data recovery plan will be prepared and implemented in consultation with the SHPO.

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 NAGPRA will be implemented, including consultation with Native American tribes.

## **5.5 AESTHETIC RESOURCES**

Coordination with BLM through the land withdrawal process will occur. Review and concurrence of the SF-299 application, "Plan of Development", and land withdrawal for the FOB site will occur so that final design plans limit impacts to visual resources on BLM land. The FOB project is located within a VRM Class II Area. The Class II objectives are to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. New projects would be approved if they blend in with the existing surroundings and do not attract attention.

## **5.6 AIR QUALITY**

Mitigation measures implemented during construction activities will include suitable fencing to restrict traffic within the project area to reduce soil disturbance. Soil watering will be utilized to minimize airborne particulate matter created during construction activities. Bare ground will be covered with weed-free hay or straw to lessen wind erosion between facility construction and landscaping. Once construction is completed or upon initiation of the permanent phase, all areas with vehicle traffic will be paved or graveled to reduce the potential for fugitive dust. Additionally, all construction equipment, vehicles and aircraft will be kept in good operating condition to minimize exhaust emissions.

Under New Mexico Administrative Code 20.2.72, a NOI in order to operate the onsite generator as a source of primary power to the FOB will be required. It is expected that the onsite generator will be utilized as the primary power source to the FOB for a period of 6 to 12 months during the temporary and permanent phases until permanent utilities connection is established.

## **5.7 WATER RESOURCES**

Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. Because the proposed project area is greater than 1 acre, as part of the NPDES permit process, a SWPPP will be prepared and a Notice of Intent will be submitted in order to obtain a Construction General Permit. CBP intends to submit a copy of the SWPPP to EPA for review prior to the start of construction. The SWPPP will be in place prior to the start of construction, and all personnel will be briefed on the implementation and responsibilities of this plan. Sedimentation and pollution of surface waters by fuels, oils and lubricants will be minimized through the implementation of the SWPPP.

Proposed construction activities, as identified in the proposed project, will alter the natural drainage patterns. Therefore, a hydrologic and hydraulic study, will be completed to determine adequate stormwater measures required for the site. If any stormwater structures are deemed necessary to eliminate adverse stormwater runoff impacts to adjacent properties, they will be incorporated into final design plans. Design, implementation, and operation of an on-site liquid waste system will comply with New Mexico liquid waste disposal and treatment regulations (20.7.3, NMAC). In order to conserve water use, facilities within the FOB will be equipped with water conservation measures, such as no flush urinals to reduce water usage further.

## **5.8 NOISE**

During the construction phase, minor short-term noise impacts are anticipated. All Occupational Safety and Health Administration requirements will be followed. To lessen noise impacts on the wildlife communities, construction will only occur during daylight hours, whenever practicable. All motor vehicles will be maintained to reduce the potential for vehicle-related noise.

Generators providing primary or backup power to the FOB would be soundproofed with barrier walls (of sufficient height and material) to substantially reduce the generator noise. To be effective, a barrier wall must at least block the line-of-sight from the source to the sensitive receptor.

USBP will review landing and take-off routes to determine what actions can be taken, such as limiting approach routes and timing the use of different routes depending on the time of day, to reduce potential adverse effects on wildlife. However, no changes in current flight altitudes, parameters, or surveillance routes are anticipated. USBP will continue to maintain and operate its aircraft within the parameters of “public aircraft” under Title 14, CFR, as administered by the Federal Aviation Administration.

## **5.9 SOLID, LIQUID, AND HAZARDOUS WASTES MATERIALS**

Measures will be taken to avoid impacting the project area with regulated substances (e.g., anti-freeze, gasoline, lubricants) associated with the construction efforts. Catch pans will be used when refueling, but accidental spills could occur as a result of maintenance procedures for construction equipment. However, the amount of fuel, lubricants, and oil will be limited, and equipment necessary to quickly contain any spills will be present when refueling.

There is potential for a spill from ASTs containing fuel. BMPs will be implemented as standard operating procedures during all operational activities, such as proper handling, storage, and disposal of hazardous and 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 vehicles will be completed following accepted 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 5 gallons or more 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. Any major spill of 5 gallons or more of a hazardous or regulated substance will be reported immediately to on-site environmental personnel who will notify appropriate Federal and state agencies. Pursuant to compliance with 40 *CFR*, Part 112, Oil Pollution Prevention, a SPCCP will be in place prior to the start of operations, and all personnel will be briefed on the implementation and responsibilities of this plan. The SPCCP will be submitted to the Dallas Facility Center Environmental Program Manager for review and comment prior to implementation or start of operations. An operational SPCCP is required due to storage and utilization of petroleum products and maintenance of ASTs. All spills, regardless of size will be contained, cleaned, and remediated as per the standard operating procedures detailed in the SPCCP.

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 Federal, state, and local regulations, including proper waste manifesting procedures. Solid waste will be collected and disposed of properly, in accordance with the Solid Waste Disposal Act, Public Law 89-272, 79 Statute 997, as amended by the Resource Conservation and Recovery Act, Public Law 94-580, 90 Statute 2795 (1976). No grey water would be discharged to the ground. All unregulated wastes (e.g., general trash, manure, and sewage) will be disposed of by a waste disposal contractor as required by state and local regulations.

*SECTION 6.0*  
*REFERENCES*





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## 6.0 REFERENCES

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- Anschuetz, K. F., W. H. Doleman, and R. C. Chapman 1990. "Landscape Archaeology in the Southern Tularosa Basin." In *Volume 1: Small Site Distributions and Geomorphology*. Office of Contract Archaeology. University of New Mexico. Albuquerque, New Mexico.
- Beckett, P. H. and T. L. Corbett. 1992. "Indian Cultural Diversity in Southern New Mexico, AD 1598-1988." In *Current Research on the Late Prehistory and Early History*. Bradley J. Vierra, ed. New Mexico Archaeological Council. Albuquerque, New Mexico.
- Bolton, H. E. 1964. *Coronado, Knight of Pueblo and Plains*. University of New Mexico Press, Albuquerque.
- Bowden, J. J. 1962. "The Magoffin Salt War." In *Password*. Volume 7, No. 3. El Paso County Historical Society. El Paso, Texas.
- Brown and Caldwell. (1984). Residential water conservation projects--summary report. U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Washington, DC.
- Brown, E.D. 1994. Chihuahuan Desertscrub. In: David E. Brown, ed. *Biotic Communities: Southwestern United States and Northwestern Mexico*. University of Utah Press, Salt Lake City, Utah.
- Bugliarello, G., A. Alexandre, J. Barnes, and C. Wakstein. 1976. *The Impact of Noise Pollution: A Socio-Technological Introduction*. New York: Pergamon Press.
- Bureau of Land Management (BLM). 1993. Mimbres Resource Management Plan. Las Cruces District Office Mimbres Resource Area. December 1993, 2004. BLM Facts. Internet Resource: <http://www.blm.gov/nhp/facts/index.htm>. Last accessed June 15, 2006.
- BLM. 1998 Visual Resource Management (VRM) Policy Restatement. Information Bulletin No. 98135. May 22, 1998.
- BLM. 2006. Visual Resource System. Internet Resource: BLM Handbook H-8410-1, Visual Resource Inventory. <http://www.blm.gov/nhp/facts/index.htm>. Last accessed June 15, 2006.
- Burt, W. H., and R. P. Grossenheider. 1976. *A field guide to the mammals*. Third edition. Houghton Mifflin Co., Boston. 289 pp.

- Busnel, R. G., and J. Fletcher. 1978. *Effect of noise on wildlife*. New York: Academic Press.
- Caltrans. 1998. *Technical Noise Supplement by the California Department of Transportation Environmental Program Environmental Engineering-Noise, Air Quality, and Hazardous Waste Management Office*. October 1998 Page 24-28
- Carmichael, D. L. 1986. *Archaeological Survey in the Southern Tularosa Basin, New Mexico*. Historic and Natural Resources Report No. 3. Environmental Management Office. Fort Bliss, Texas.
- Carpenter, Gail A. and S. Grossberg. 1984. *A Neural Theory of Circadian Rhythms: Aschoff's Rule in Diurnal and Nocturnal Animals*. *American Journal of Physiology*. 16:R1067-R1082.
- Couchman, D. H. 1990. *Cooke's Peak-Pasaron Por Aqui; A Focus on United States History in Southwestern New Mexico*. New Mexico Bureau of Land Management Cultural Resources Report No. 7. New Mexico Bureau of Land Management, Las Cruces.
- Degenhardt, W. G., Painter, C. W., and A. H. Price. 1996. *Amphibians and Reptiles of New Mexico*. UNM Press. Albuquerque, NM. 431 pp.
- Doleman, William H. 1988. *The Holloman Test Track Impact Area Archaeological Survey*. Project No. 185-366. Prepared for Holloman Air Force Base, HAFB Report No. 88-004. Office of Contract Archaeology. University of New Mexico. Albuquerque, New Mexico.
- Ellis, Roger. 2006. Personal communication via telephone between Mr. Roger Ellis (Hidalgo County) and Ms. Maria Reid (Gulf South Research Corporation) on February 15, 2006. Telephone number (505) 542-9428.
- Federal Highway Administration (FHWA) 2007. *Special Report: Highway construction Noise: Measurement, Prediction, and Mitigation, Appendix A Construction Equipment Noise Levels and Ranges*.
- Federal Aviation Administration.(FAA) 2007. *Final Rule for Noise Standards for Helicopters in the Normal, Transport and Restricted Categories*. Internet resource.  
[http://www.airweb.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgFinalRule.nsf/0/317998](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgFinalRule.nsf/0/317998).
- Findley, J.S., A.H. Harris, D.E. Wilson, and C. Jones. 1975. *Mammals of New Mexico*. University of New Mexico Press, Albuquerque, New Mexico. xxii + 360 pp.

- Frank, K. D. 1988. Impact of outdoor lighting on moths: An assessment. *Journal of the Lepidopterists' Society* 42(2): 63-93.
- Generac Power Systems, Inc. 2004. Technical Perspective: Sound Measurement and Attenuation. Bulletin 0170310SBY. Waukesha, Wisconsin.
- Geo Marine Incorporated (GMI). 2006. Draft Cultural Resource Survey of Approximately 10 Acres for the Proposed Construction of Two Border Patrol Facilities Near Lordsburg and Deming, Luna and Hidalgo Counties, New Mexico. August 10, 2006.
- Hall, L. B., and D. M. Coerver. 1990. *Revolution on the Border; The United States and Mexico, 1910-1920*. University of New Mexico Press, Albuquerque.
- Hall, T. Y. and R. K. Skaggs. 2003. New Mexico's Chile Pepper Industry: Chile Types and Product Sourcing, New Mexico Chile Task Force Report No. 8. New Mexico State University, College of Agriculture and Home Economics, Las Cruces, N.M.
- Hard, R. J. 1984. Ecological Relationships Affecting the Rise of Farming Economies: A Test from the American Southwest. Ph.D. dissertation, Department of Anthropology, University of New Mexico. Albuquerque, New Mexico.
- Harris, C. H., and L. R. Sadler 1993. *Bastion on the Border: Fort Bliss, 1854-1943*. Historic and Natural Resources Report No. 9. Cultural Resources Management Program, Directorate of Environment, United States Army Air Defense Artillery Center, Fort Bliss, Texas.
- Immigration and Naturalization Service (INS). 2001. Supplemental Programmatic Environmental Impact Statement, Immigration and Naturalization Service and Joint Task Force-Six Activities on the Southwest U.S.-Mexico Border, U.S. Army Corps of Engineers, Fort Worth District, Fort Worth, Texas. June 2001.
- Kirkpatrick, D. T., M. S. Duran, M. Sechrist, C. Browning, and P. Eidenbach. 1992. *Archaeological Resources Overview of the Joint Task Force 6 Project along the International Border, Southern New Mexico*. Human Systems Research Project No. HSR 9228. Human Systems Research, Inc., Tularosa.
- MacNeish, R. S. 1993. Preliminary Investigations of the Archaic in the Region of Las Cruces, New Mexico. Historic and Natural Resources Report No. 9. Cultural Resources Management Branch. Fort Bliss, Texas.
- Mid-Atlantic Regional Air Management Association (MARAMA) 2006. Fugitive Dust-Construction Calculation Sheet can be found online at: [http://www.marama.org/visibility/Calculation\\_Sheets/](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.
- Moore, J. L. 1996 Archaeological Investigations in the Southern Mesilla Bolson: Data Recovery at the Santa Teresa Port-of-Entry Facility. Archaeology Note 188. Office of Archaeological Studies, Museum of New Mexico. Santa Fe, New Mexico.
- Myrick, David F. 1970 *New Mexico Railroads*. Golden Colorado: Colorado Railroad Museum, pp 82-94.
- Natural Resource Conservation Service. (NRCS). 2007. NRCS Soil Data Mart website. Selected soil interpretations for major soil units Luna County, New Mexico. <http://soildatamart.nrcs.usda.gov/County.aspx?State=.NM> last accessed January 7, 2007.
- New Mexico Department of Game and Fish (NMDGF). 2000. Threatened and Endangered Species of New Mexico. Biennial Review and Recommendations. New Mexico Department of Game and Fish, Conservation Services Division. Santa Fe, NM.
- NMDGF. 2004. Biota Information System of New Mexico (BISON) Luna County Species Accounts Version: January 2004. Department of Game and Fish, Conservation Services Division. Santa Fe, New Mexico.
- New Mexico Department of Labor. 2006. Luna County Economic Condition. <http://dol.state.nm.us/wdc16a.htm#outlook>. Last accessed June 23, 2006.
- New Mexico Department of Labor's Labor Analysis Statistics and Economic Research (NMLASER), 2006. List of all employers registered on the Lasers website for Luna County, NM. <http://laser.state.nm.us/vlmi/analyzer>. Website last accessed. June 23, 2006.
- New Mexico Economic Development Department. 2006. Internet resource. Data Center, County Profiles. <http://www.edd.state.nm.us/profiles/county-comm.php>. Last accessed July 29, 2006.
- New Mexico Environment Department (NMED). 2000. New Mexico Air Quality Bureau. Natural Events Action Plan For High Wind Events, Doña Ana County. December 22, 2000.
- NMED. 2004. New Mexico Air Quality Bureau. Natural Events Action Plan For PM-10 Exceedances due to High Wind Events in Luna County , New Mexico. October 2004.

- New Mexico Rare Plant Technical Council (NMRPTC). 2006. New Mexico Rare Plants Website. Internet Resource: <http://nmrareplants.unm.edu/index.html>. Latest update: 6 December 2007.
- New Mexico Water Resources Research Institute (NMWRRI) 2000. Trans-International Boundary Aquifers in Southwestern New Mexico. Prepared by NMWRRI, New Mexico State University, and California State University. March 2000.
- New Mexico Wilderness Alliance (NMWA). 2006. Peloncello Mountains Complex. Internet resource: <http://www.nmwild.org/places/sky/peloncillo>. Accessed February 1 2006.
- Peterson, J. and Zimmer. 1998. Birds of the Trans Pecos. University of Texas Press: Austin. 216 pp.
- Pratt, B. C. and D. Scurlock. 1991. The Southwest New Mexico Regional Overview. Historic Preservation Division, Office of Cultural Affairs. Santa Fe, New Mexico.
- Schroeder, A. 1973. "The Mescalero Apaches." In *Technical Manual: 1973 Survey of the Tularosa Basin, The Research Design*. Human Systems Research, Inc. Albuquerque, New Mexico
- Stebbins, R. C. 2003. Petersons Field Guides, Western Reptiles and Amphibians. Houghton Mifflin, Boston pp 533.
- U.S. Bureau of Economic Analysis. 2007. BEARFACTS. Internet URL: <http://www.bea.gov/regional/bearfacts/>. Last accessed: December 20, 2007.
- U.S. Census Bureau. 2006. Internet resource: <http://www.census.gov/>. Last accessed: December 20, 2007.
- U.S. Customs Border Protection (CBP). 2004. National Border Patrol Strategy. Prepared by the Office of Border Patrol and the Office of Planning and Policy. Washington, DC. September 2004. 28pp.
- CBP. 2006a. Phase Project Management Plan For Construction of Forward Operating Base USBP Lordsburg Station, Deming Station. Office of Border Patrol, El Paso Sector, Logistics Center Dallas. February 24, 2006.
- CBP. 2006b. Phase I Environmental Site Assessment For Construction of a Forward Operating Base near Columbus, New Mexico, Deming Border Patrol Station. Office of Border Patrol, El Paso Sector, Luna County, New Mexico.
- CBP. 2006c. Programmatic Environmental Assessment for Proposed Tactical Infrastructure, Office of Border Patrol, El Paso sectors, New Mexico Stations July 2006.

- CBP 2007. Plan of Development for Office of Border Patrol, Deming Station Forward Operating Base. December 2007.
- U.S. Department of Agriculture (USDA). 1980. Soils Survey of Luna County, New Mexico. Soil Conservation Service. December 1980.
- U.S. Environmental Protection Agency (EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Report 550/9-74-004.
- EPA. 2007. Welcome to the Green Book Nonattainment Areas for Criteria Pollutants [www.epa.gov/oar/oaqps/greenbk](http://www.epa.gov/oar/oaqps/greenbk)
- Federal Emergency Management Agency. 2007. Map Service Center. <http://www.msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>
- U.S. Fish and Wildlife Service (USFWS) 2005a. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Internet resource: [http://www.fws.gov/ifw2es/NewMexico/documents/WIFL\\_final\\_9-30-05\\_Final\\_FR\\_corrected.pdf](http://www.fws.gov/ifw2es/NewMexico/documents/WIFL_final_9-30-05_Final_FR_corrected.pdf). Last accessed February 23, 2006.
- USFWS. 2005b. Draft Chiricahua Leopard Frog (*Rana chiricahuensis*) Recovery Plan. U.S. Fish and Wildlife Service, Southwest Region, Albuquerque, NM. 149 pp. + Appendices A-N.
- USFWS. 2006. Endangered Species List. Internet resource: <http://www.fws.gov/ifw2es/endangeredspecies/lists/>. Last accessed: July 13, 2006.
- U.S. Geological Survey (USGS). 1986. Albuquerque, 1:250,000. Earth Data Analysis Center, Albuquerque, NM. January 1, 1986.
- USGS. 2004. Provisional Digital Land Cover Map for the Southwestern United States. Version 1.0. RS/GIS Laboratory, College of Natural Resources, Utah State University.
- USGS. 2005. Southwest Exotics Plants Mapping Program. U.S. Department of the Interior, U.S. Geological Survey, Colorado Plateau Research Station, Flagstaff, AZ, USA. Internet resource: <http://www.usgs.nau.edu/swepic/>. Last modification:03/22/05 01:18 PM.
- Whalen, M. E. 1978. "Settlement Patterns of the Western Hueco Bolson." Publication in Anthropology. No. 6. El Paso Centennial Museum. University of Texas at El Paso. El Paso, Texas.

- White, C. M., N. J. Clum, T. J. Cade, and W. G. Hunt. (2002). Peregrine Falcon (*Falco peregrinus*). The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Laboratory of Ornithology; Retrieved from The Birds of North American Online database: [http://bna.birds.cornell.edu/BNA/account/Peregrine\\_Falcon/](http://bna.birds.cornell.edu/BNA/account/Peregrine_Falcon/).
- Wilson, J. P. 1975. *Historic Profile of Southwestern New Mexico*. Cultural Resources Management Division. Report No. 21. New Mexico State University, Las Cruces.
- Wilson, C., S. Hordes, and H. Walt. 1989. *The South Central New Mexico Regional Overview; History, Historic Archeology Architecture, and Historic Preservation*. Historic Preservation Division, Santa Fe.
- Wimberly, M. and A. Rogers. 1977. "Archaeological Survey of the Three Rivers Drainage, New Mexico." *The Artifact*. No. 15. El Paso Archaeological Society. El Paso, Texas.
- Wyle Research Corporation. 1992. *Noise Measurement and Assessment Methodologies*. Arlington Virginia.
- Young, K.E., B.C. Thompson, R. Valdez, W.R. Gould, and A. Lafón Terrazas. 2005. *Assessment of predictive values from the aplomado falcon habitat suitability model: validation information for conservation planning in the northern Chihuahuan Desert*. New Mexico Cooperative Fish and Wildlife Research Unit. Las Cruces, New Mexico, 63 pp. + appendices.

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**SECTION 7.0**  
**LIST OF PREPARERS**





## 7.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Draft Environmental Assessment (DEA).

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING DEA
Jeff Firebaugh	USACE, Albuquerque District	Engineering	15 years technical review of NEPA documents	USACE Project Manager, DEA review and coordination
Suna Adam Knaus	Gulf South Research Corporation	Forestry/Wildlife	17 years, natural resources	DEA review
Eric Webb, Ph.D.	Gulf South Research Corporation	Ecology/Wetlands	15 years experience in natural resources and NEPA studies	DEA technical review
Chris Ingram	Gulf South Research Corporation	Biology/ Ecology	30 years EA/EIS studies	Project Coordinator/DEA technical review
Greg Lacy	Gulf South Research Corporation	Biology/Environmental Science	10 years, natural resources and NEPA studies	Project Manager
Sharon Newman	Gulf South Research Corporation	GIS/graphics	11 years, GIS/graphics experience	GIS/graphics
Bretton Somers, Ph.D	Gulf South Research Corporation	Archaeology	6 years, Archaeology	Archaeology
Michael Hodson	Gulf South Research Corporation	Environmental Science	5 years natural resources	DEA preparation/Sociology
Steve Kolian	Gulf South Research Corporation	Environmental Science	10 years natural resources	DEA preparation/ Air, Water , and Noise
Joanna Cezniak	Gulf South Research Corporation	Wildlife	9 years natural resources	DEA preparation/Biological Resources

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*APPENDIX A*  
*CORRESPONDENCE*







DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

05 FEB 2008

Planning, Projects and Program Management Division  
Military and IAS Project Management Branch

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

Dear Ms. Slick,

On behalf of the Department of Homeland Security, Customs and Border Protection, U.S. Border Patrol (USBP), El Paso Sector, the U.S. Army Corps of Engineers, Albuquerque District is preparing an Environmental Assessment (EA) for construction of Forward Operating Base (FOB) in Luna County, New Mexico. At this time, and in accordance with Section 106 of the National Historic Preservation Act and its implementation regulations, 36 CFR Part 800, the USBP wishes to initiate its consultation process with your office.

The FOB would reduce time required to deploy USBP agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

The proposed FOB site is on land currently managed by Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (see enclosure). Office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, and portable fueling facilities are planned at the FOB site.

We will provide you with a copy of the cultural resources report and a copy of the draft EA for your review and comment. If you have any questions pertaining to this project, please do not hesitate to contact Dr. John Schelberg at 505-342-3359.

Sincerely,

A handwritten signature in black ink, appearing to read "Jorge R. Colberg", is written over the typed name.

for

Jorge R. Colberg  
Chief, Planning, Projects and  
Program Management Division

Enclosure

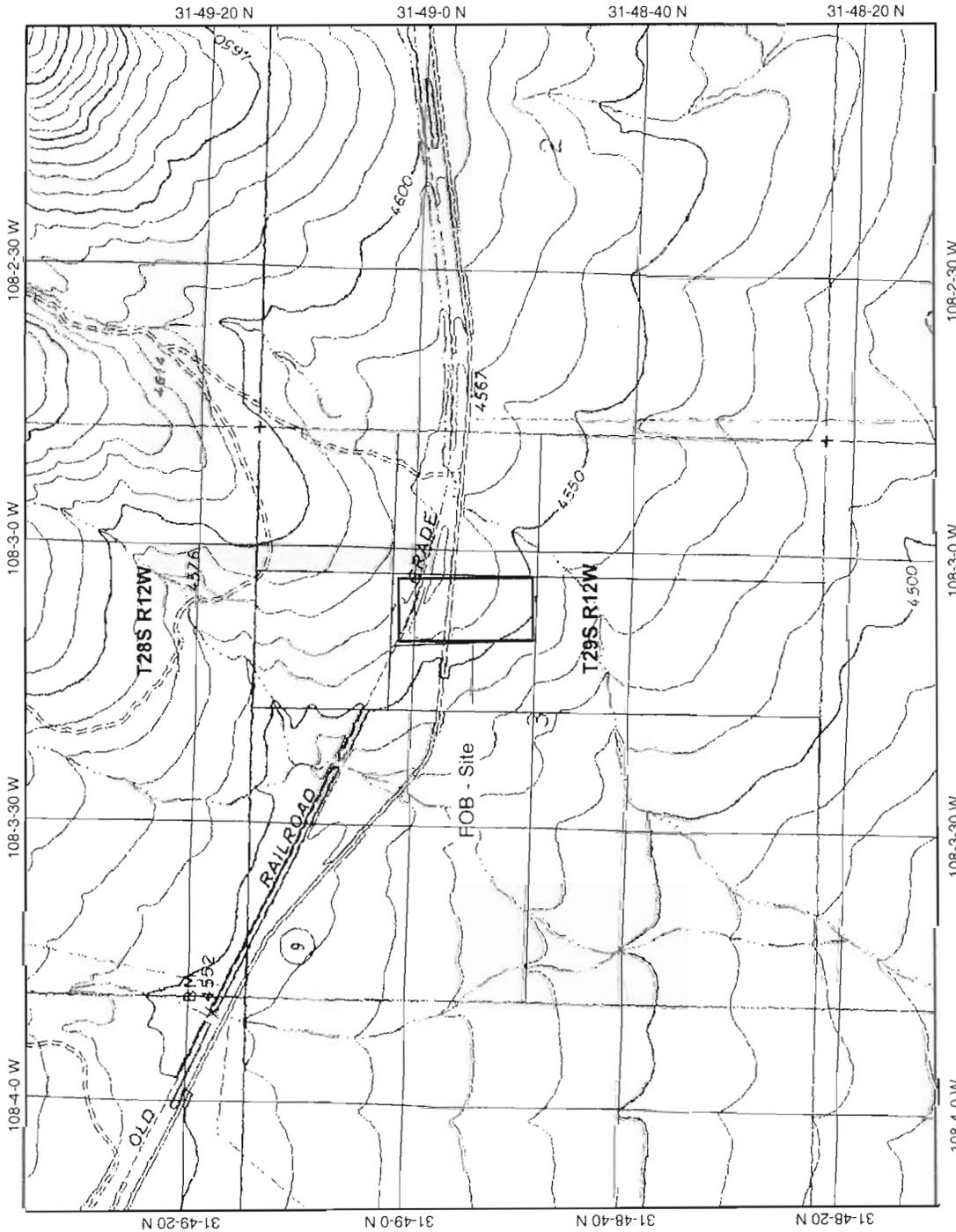
# Deming FOB Site



- Legend**
- SPA District Boundary
  - Counties
  - Township\_Range
  - Cities - Texas
  - Cities - New Mexico
  - Cities - Colorado
  - States



Scale: 1:18,112



108-2-30 W

108-3-0 W

108-3-30 W

108-4-0 W

31-49-20 N

31-49-0 N

31-48-40 N

31-48-20 N

Map center: 31° 48' 54" N, 108° 3' 7" W



This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

April 14, 2008

Planning, Project and Program Management Division  
Project Management Branch  
Military and IAS Project Management Branch

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

SUBJECT: Proposed Forward Operating Base for the Office of Border  
Patrol Deming Stations in Luna County, New Mexico

Dear Ms. Kirkpatrick:

The U.S. Army Corps of Engineers (USACE), Albuquerque District is acting on behalf of the Department of Homeland Security (DHS), United States Border Patrol (USBP) in preparing an Environmental Assessments (EA) for the construction of a Forward Operating Base (FOB) within the USBP Deming Station's Area of Operations (AOs). The purpose of the FOB is to reduce time required to deploy agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

Deming Station headquarters is a considerable distance from the U.S. - Mexico Border. The proposed FOB is planned to provide remote facilities closer to the border from which USBP agents can initiate their enforcement actions and, thus, reduce the time required to reach the border region.

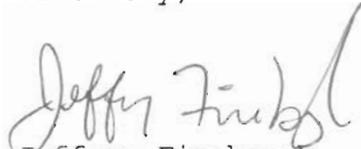
The proposed FOB site exists on land managed by the Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (See Figure 1). The FOB sites are planned to include office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, portable fueling facilities.

We are currently in the process of gathering the most current information available regarding Federally and state listed species potentially occurring within the project area. The USACE respectfully requests that your agency provide a list of the protected species of this county along with a description of the sensitive resources (e.g.,

rare or unique plant communities, threatened and endangered and candidate species, etc.), and a species location map for those species that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the Draft EA once completed. The Draft EA will document our determination of effect on protected species and unique or environmentally sensitive areas. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA. Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Jeff Firebaugh (505) 342-3490.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeffrey Firebaugh". The signature is written in dark ink on a light-colored background.

Jeffrey Firebaugh  
USACE  
Military and IAS PM Branch



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

05 FEB 2008

Planning, Projects and Program Management Division  
Military and IAS Project Management Branch

Mr. Wally Murphy  
U.S. Fish and Wildlife Service  
NM Ecological Services State Office  
2105 Osuna NE  
Albuquerque, NM 87113

RECEIVED

FEB 08 2008

USFWS-NMESFO

Dear Mr. Murphy:

The U.S. Army Corps of Engineers (Corps), Albuquerque District is acting on behalf of the Department of Homeland Security (DHS), United States Border Patrol (USBP) in preparing an Environmental Assessment (EA) for the construction of a Forward Operating Base (FOB) within the USBP Deming Station's Area of Operations (AOs) in Luna County, NM. The purpose of the FOB is to reduce time required to deploy agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

Deming Station headquarters is a considerable distance from the U.S. - Mexico Border. The proposed FOB is planned to provide remote facilities closer to the border from which USBP agents can initiate their enforcement actions and, thus, reduce the time required to reach the border region.

The proposed FOB site exists on land managed by the Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (See enclosure). Office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, and portable fueling facilities are planned for the FOB sites.

We are currently in the process of gathering the most current information available regarding federally and state listed species potentially occurring within the project area. The Corps respectfully requests that your agency provide a list of the protected species of this county along with a description of the sensitive resources (e.g., rare or unique plant species

-2-

etc.), and a species location map for those species that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the draft EA once completed. The draft EA will document our determination of effect on protected species and unique or environmentally sensitive areas. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the draft EA. Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Jeff Firebaugh (505) 342-3490.

Sincerely,



Jorge R. Colberg  
Chief, Planning, Project &  
Program Management Division

Enclosure

Copy furnished:

Mr. Matt Wunder  
Chief, Conservation Services Division  
New Mexico Department of Game and Fish  
P.O. Box 25112  
Santa Fe, NM 87504

Mr. Ed Seum  
Bureau of Land Management  
Las Cruces District Office  
1800 Marquess  
Las Cruces, NM 88005



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office  
2105 Osuna NE  
Albuquerque, New Mexico 87113  
Phone: (505) 346-2525 Fax: (505) 346-2542

MAR - 6 2008

Thank you for your recent request for information on threatened or endangered species or important wildlife habitats that may occur in your project area. The New Mexico Ecological Services Field Office has posted lists of the endangered, threatened, proposed, candidate and species of concern occurring in all New Mexico Counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: [http://www.fws.gov/southwest/es/NewMexico/SBC\\_intro.cfm](http://www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm). If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find New Mexico Listed and Sensitive Species Lists on the main page and click on the county of interest. Your project area may not necessarily include all or any of these species. This information should assist you in determining which species may or may not occur within your project area.

Under the Endangered Species Act, as amended (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. Similarly, it is their responsibility to determine if a proposed action has no effect to endangered, threatened, or proposed species, or designated critical habitat. If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included on the web site for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened. Therefore, actions that may contribute to their decline should be avoided. We recommend that candidates and species of concern be included in your surveys.

Also on the web site, we have included additional wildlife-related information that should be considered if your project is a specific type. These include communication towers, power line safety for raptors, road and highway improvements and/or construction, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. We recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands. These habitats should be conserved through avoidance, or mitigated to ensure no net loss of wetlands function and value.

The Migratory Bird Treaty Act (MBTA) prohibits the taking of migratory birds, nests, and eggs, except as permitted by the U.S. Fish and Wildlife Service. To minimize the likelihood of adverse impacts to all birds protected under the MBTA, we recommend construction activities occur outside the general migratory bird nesting season of March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until nesting is complete.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding fish, wildlife, and plants of State concern.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Sincerely,



Wally Murphy  
Field Supervisor



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

April 14, 2008

Planning, Project and Program Management Division  
Project Management Branch  
Military and IAS Project Management Branch

Mr. Ed Seum  
Bureau of Land Management  
Las Cruces District Office  
1800 Marquess  
Las Cruces, New Mexico 88005

SUBJECT: Proposed Forward Operating Base for the Office of  
Border Patrol Deming Stations in Luna County, New Mexico

Dear Mr. Seum:

The U.S. Army Corps of Engineers (USACE), Albuquerque District is acting on behalf of the Department of Homeland Security (DHS), United States Border Patrol (USBP) in preparing an Environmental Assessments (EA) for the construction of a Forward Operating Base (FOB) within the USBP Deming Station's Area of Operations (AOs). The purpose of the FOB is to reduce time required to deploy agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

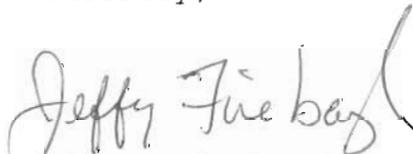
Deming Station headquarters is a considerable distance from the U.S. - Mexico Border. The proposed FOB is planned to provide remote facilities closer to the border from which USBP agents can initiate their enforcement actions and, thus, reduce the time required to reach the border region.

The proposed FOB site exists on land managed by the Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (See Figure 1). The FOB sites are planned to include office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, portable fueling facilities.

We are currently in the process of gathering the most current information available regarding BLM sensitive species potentially occurring in the project area. The USACE respectfully requests that your agency provide input regarding BLM sensitive species and unique or environmentally sensitive areas, and provide a location map for those sensitive species or areas that you believe may be affected by the proposed OBP activities.

We intend to provide your agency with a copy of the Draft EA once completed. The Draft EA will document our determination of effect on protected species and unique or environmentally sensitive areas. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA. Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Jeff Firebaugh (505) 342-3490.

Sincerely,

A handwritten signature in cursive script that reads "Jeffrey Firebaugh".

Jeffrey Firebaugh

USACE

Military and IAS PM Branch

Enclosure



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

05 FEB 2008

Planning, Projects and Program Management Division  
Military and IAS Project Management Branch

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

Dear Ms. Slick,

On behalf of the Department of Homeland Security, Customs and Border Protection, U.S. Border Patrol (USBP), El Paso Sector, the U.S. Army Corps of Engineers, Albuquerque District is preparing an Environmental Assessment (EA) for construction of Forward Operating Base (FOB) in Luna County, New Mexico. At this time, and in accordance with Section 106 of the National Historic Preservation Act and its implementation regulations, 36 CFR Part 800, the USBP wishes to initiate its consultation process with your office.

The FOB would reduce time required to deploy USBP agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

The proposed FOB site is on land currently managed by Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (see enclosure). Office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, and portable fueling facilities are planned at the FOB site.

We will provide you with a copy of the cultural resources report and a copy of the draft EA for your review and comment. If you have any questions pertaining to this project, please do not hesitate to contact Dr. John Schelberg at 505-342-3359.

Sincerely,

A handwritten signature in black ink, appearing to read "Jorge R. Colberg", is written over a horizontal line.

for

Jorge R. Colberg  
Chief, Planning, Projects and  
Program Management Division

Enclosure

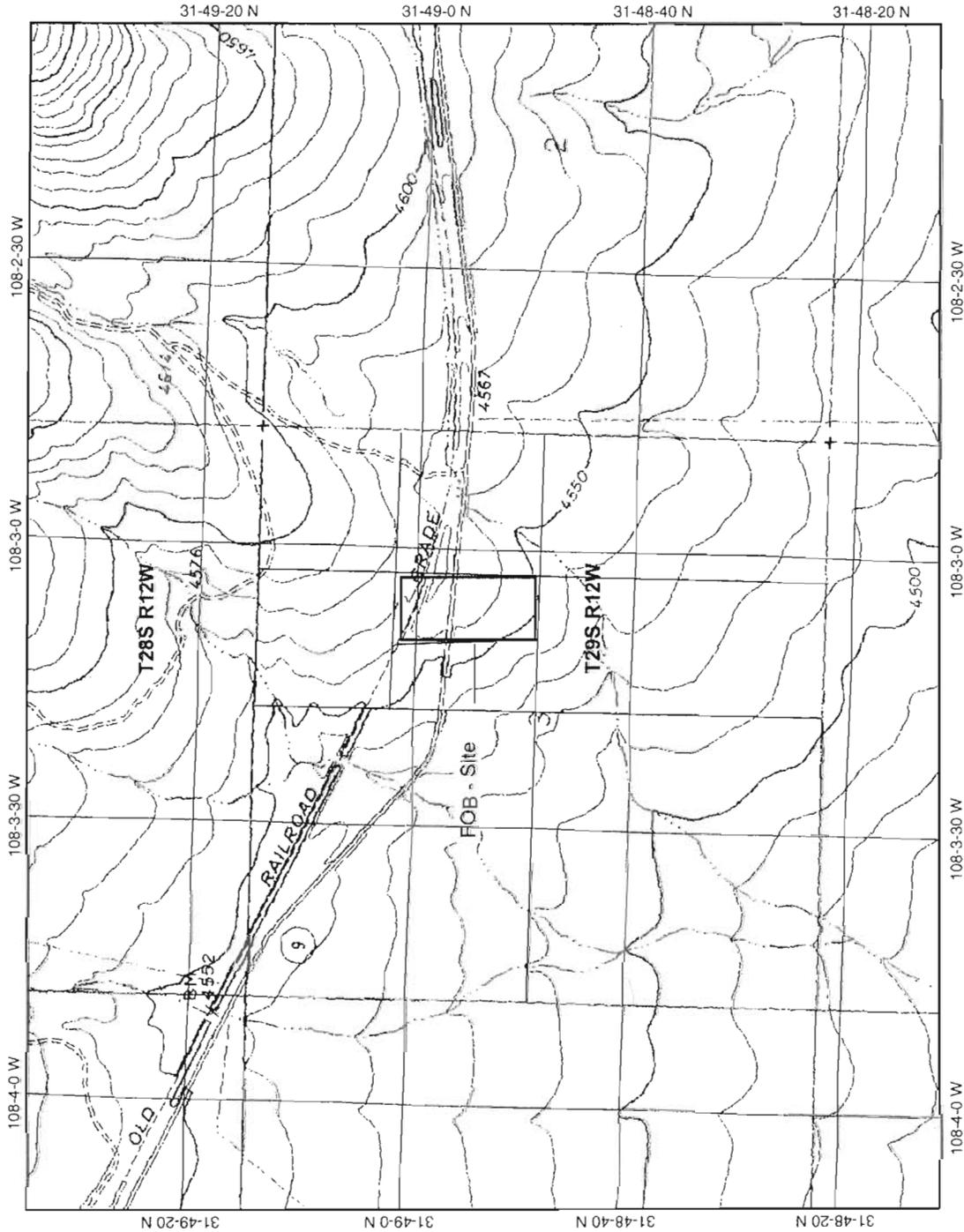
# Deming FOB Site



- Legend**
- SPA District Boundary
  - Counties
  - Township\_Range
  - Cities - Texas
  - Cities - New Mexico
  - Cities - Colorado
  - States



Scale: 1:18,112



Map center: 31° 48' 54" N, 108° 3' 7" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

05 FEB 2008

Planning, Projects and Program Management Division  
Military and IAS Project Management Branch

Mr. Wally Murphy  
U.S. Fish and Wildlife Service  
NM Ecological Services State Office  
2105 Osuna NE  
Albuquerque, NM 87113

Dear Mr. Murphy:

The U.S. Army Corps of Engineers (Corps), Albuquerque District is acting on behalf of the Department of Homeland Security (DHS), United States Border Patrol (USBP) in preparing an Environmental Assessment (EA) for the construction of a Forward Operating Base (FOB) within the USBP Deming Station's Area of Operations (AOs) in Luna County, NM. The purpose of the FOB is to reduce time required to deploy agents to the border region. The EA will address the impacts of operating and maintaining the property in support to the overall operations of the FOB.

Deming Station headquarters is a considerable distance from the U.S. - Mexico Border. The proposed FOB is planned to provide remote facilities closer to the border from which USBP agents can initiate their enforcement actions and, thus, reduce the time required to reach the border region.

The proposed FOB site exists on land managed by the Bureau of Land Management and encompasses approximately 15 acres. The site is located adjacent to New Mexico Highway 9 approximately 25 miles west of Columbus, New Mexico (See enclosure). Office and temporary detention facilities, locker rooms, parking lots, helipads, maintenance shops, and portable fueling facilities are planned for the FOB sites.

We are currently in the process of gathering the most current information available regarding federally and state listed species potentially occurring within the project area. The Corps respectfully requests that your agency provide a list of the protected species of this county along with a description of the sensitive resources (e.g., rare or unique plant species

etc.), and a species location map for those species that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the draft EA once completed. The draft EA will document our determination of effect on protected species and unique or environmentally sensitive areas. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the draft EA. Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Jeff Firebaugh (505) 342-3490.

Sincerely,



Jorge R. Colberg  
Chief, Planning, Project &  
Program Management Division

Enclosure

Copy furnished:

Mr. Matt Wunder  
Chief, Conservation Services Division  
New Mexico Department of Game and Fish  
P.O. Box 25112  
Santa Fe, NM 87504

Mr. Ed Seum  
Bureau of Land Management  
Las Cruces District Office  
1800 Marquess  
Las Cruces, NM 88005



DEPARTMENT OF THE ARMY  
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS  
4101 JEFFERSON PLAZA NE  
ALBUQUERQUE NM 87109-3435

05 FEB 2008

Planning, Projects and Program Management Division  
Military and IAS Project Management Branch

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U.S. Fish and Wildlife Service  
NM Ecological Services State Office  
2105 Osuna NE  
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Sincerely,



Jorge R. Colberg  
Chief, Planning, Project &  
Program Management Division

Enclosure

Copy furnished:

Mr. Matt Wunder  
Chief, Conservation Services Division  
New Mexico Department of Game and Fish  
P.O. Box 25112  
Santa Fe, NM 87504

Mr. Ed Seum  
Bureau of Land Management  
Las Cruces District Office  
1800 Marquess  
Las Cruces, NM 88005

GOVERNOR  
Bill Richardson



DIRECTOR AND SECRETARY  
TO THE COMMISSION  
Bruce C. Thompson, Ph.D.

Robert Jenks, Deputy Director

STATE OF NEW MEXICO  
DEPARTMENT OF GAME & FISH

One Wildlife Way  
Post Office Box 25112  
Santa Fe, NM 87504  
Phone: (505) 476-8101  
Fax: (505) 476-8128

Visit our website at [www.wildlife.state.nm.us](http://www.wildlife.state.nm.us)  
For basic information or to order free publications: 1-800-862-9310.

STATE GAME COMMISSION

Dr. Tom Arvas, Chairman  
Albuquerque, NM

M.H. "Dutch" Salmon, Vice-Chairman  
Silver City, NM

Sandy Buffett, Commissioner  
Santa Fe, NM

Jim McClintic, Commissioner  
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Alfredo Montoya, Commissioner  
Alcalde, NM

Oscar Simpson, Commissioner  
Albuquerque, NM

Leo V. Sims, II, Commissioner  
Hobbs, NM

February 25, 2008

Jeff Firebaugh  
Dept. of the Army  
Albuquerque District, Corps of Engineers  
4101 Jefferson Plaza NE  
Albuquerque, NM 87109-3435

Re: Construction of a Forward Operating Base within the USBP Deming Station's Area of Operations in Luna County.  
NMGF No. 12000

Dear Mr. Firebaugh,

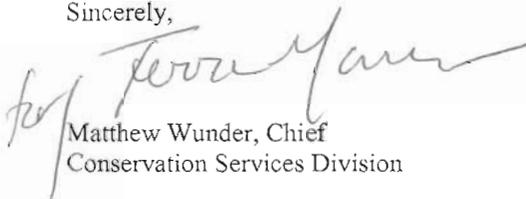
In response to your letter dated February 5, 2008, regarding the above referenced project, enclosed is a list of species of concern that occur in Luna County. Other sources of information are listed below.

For more information on listed and other species of concern, contact the following sources:

1. BISON-M Species Accounts, Searches, and County lists: <http://www.bison-m.org>
2. Habitat Handbook Project Guidelines:  
[http://wildlife.state.nm.us/conservation/habitat\\_handbook/index.htm](http://wildlife.state.nm.us/conservation/habitat_handbook/index.htm)
3. For custom, site-specific database searches on plants and wildlife. Go to Data then to Free On-Line Data and follow the directions go to: <http://nrmhp.unm.edu>
4. New Mexico State Forestry Division (505-827-5830) or <http://nmrareplants.unm.edu/index.html> for state-listed plants
5. For the most current listing of federally listed species **always** check the U.S. Fish and Wildlife Service at (505-346-2525) or <http://fws.gov/ifw2es/NewMexico/index.cfm>.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Terra Manasco at (505) 476-8101 or [terra.manasco@state.nm.us](mailto:terra.manasco@state.nm.us).

Sincerely,

  
Matthew Wunder, Chief  
Conservation Services Division

MW/ttd

xc: Wally Murphy, Ecological Services Field Supervisor, USFWS  
Luis Rios, SW Area Operations Chief, NMGF  
Pat Mathis, SW Area Habitat Specialist, NMGF

# NEW MEXICO WILDLIFE OF CONCERN LUNA COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at <http://www.fws.gov/ifw2es/NewMexico/SBC.cfm>. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to <http://nmrareplants.unm.edu/>. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information.

<u>Common Name</u>	<u>Scientific Name</u>	<u>NMGF</u>	<u>US FWS</u>	<u>critical habitat</u>
Great Plains Narrowmouth Toad	Gastrophryne olivacea	E		
Chiricahua Leopard Frog	Rana chiricahuensis	s	T	
Reticulate Gila Monster	Heloderma suspectum suspectum	E		
Brown Pelican	Pelecanus occidentalis	E		
Neotropic Cormorant	Phalacrocorax brasilianus	T		
Bald Eagle	Haliaeetus leucocephalus	T	T	
Common Black-Hawk	Buteogallus anthracinus	T	SOC	
Aplomado Falcon	Falco femoralis	E	E	
Peregrine Falcon	Falco peregrinus	T	SOC	
Mountain Plover	Charadrius montanus	s	SOC	
Common Ground-Dove	Columbina passerina	E		
Yellow-billed Cuckoo	Coccyzus americanus	s	C	
Mexican Spotted Owl	Strix occidentalis lucida	s	T	Y
Burrowing Owl	Athene cunicularia		SOC	
Violet-crowned Hummingbird	Amazilia violiceps	T		
Lucifer Hummingbird	Calothorax lucifer	T		
Southwestern Willow Flycatcher	Empidonax traillii extimus	E	E	Y
Loggerhead Shrike	Lanius ludovicianus	s		
Bell's Vireo	Vireo bellii	T	SOC	
Gray Vireo	Vireo vicinior	T		
Botteri's Sparrow	Aimophila botterii	s		
Baird's Sparrow	Ammodramus bairdii	T	SOC	
Varied Bunting	Passerina versicolor	T		
Long-legged Myotis Bat	Myotis volans interior	s		
Fringed Myotis Bat	Myotis thysanodes thysanodes	s		
Western Red Bat	Lasiurus blossewillii	s	SOC	
Pale Townsend's Big-eared Bat	Corynorhinus townsendii pallescens	s	SOC	
Desert Pocket Gopher	Geomys arenarius	s	SOC	
Western Spotted Skunk	Spilogale gracilis	s		
Hooded Skunk	Mephitis macroura milleri	s		
Cook's Peak Woodlandsnail	Ashmunella macromphala	T	SOC	
Fairy Shrimp	Streptocephalus moorei	s		

*APPENDIX B*  
*LIST OF STATE AND FEDERAL PROTECTED SPECIES FOR LUNA COUNTY*





**Table 1. New Mexico State Listed Species Potentially Occurring within Luna County**

Common Name Scientific Name	State Listing Status	Habitat	Potential to Occur in Project Area
<b>BIRDS</b>			
<b>Bald eagle</b> <i>Haliaeetus leucocephalus</i>	T	Associated with streams and lakes. Often winter visitor.	<b>No</b> - No streams and lakes located near the project area.
<b>Common black-hawk</b> <i>Buteogallus anthracinus anthracinus</i>	T	Uncommon but regular summer resident in the Mimbres drainages. Breeding birds require mature, well-developed riparian forest stands near permanent streams.	<b>No</b> – Suitable riparian forest habitat not present in project area.
<b>Northern aplomado falcon</b> <i>Falco femoralis septentriolis</i>	E	Open terrain with scattered trees, relatively low ground cover.	<b>No</b> – Marginal habitat within the project area does exist but lack of scattered trees or perches reduces habitat as unsuitable.
<b>American peregrine falcon</b> <i>Falco peregrinus anatum</i>	T	Breeds locally in mountains and river canyons and migrates statewide.	<b>Yes</b> – Potential foraging habitat but no nesting habitat present within the project area.
<b>Common ground-dove</b> <i>Columbina passerine pallescens</i>	E	Native shrublands at lower elevations, particularly riparian areas.	<b>Yes</b> – Potential habitat within the project area.
<b>Lucifer hummingbird</b> <i>Calothroax lucifer</i>	T	Prefers rugged canyons and slopes in dry mountain ranges.	<b>No</b> General habitat provided in Chihuahuan Desertscrub, yet suitable nesting habitat and foraging food plants not located within the project area.
<b>Southwestern willow flycatcher</b> <i>Empidonax traillii extimus</i>	E	Riparian habitats of dense of willows, tamarisk with overstory of cottonwood.	<b>No</b> – Suitable riparian not present in project area.
<b>Bell's vireo</b> <i>Vireo bellii</i>	T	Dense shrubby/woody riparian habitats.	<b>No</b> – Suitable riparian not present in project area.
<b>Gray vireo</b> <i>Vireo vicinior</i>	T	Prefers arid juniper woodlands on foothills and mesas, habitat usually has a well developed grass component.	<b>No</b> – Suitable woodland habitat not present in the project area.
<b>Baird's sparrow</b> <i>Ammodramus bairdii</i>	T	Mainly a migrant but will occasionally winter in NM. Observed in native grassland habitat.	<b>No</b> – Grasslands not present in the project area
<b>Varied bunting</b> <i>Passerina versicolor versicolor</i>	T	Prefer dense stands of mesquite ( <i>Prosopis</i> spp.) and associated growth in canyon bottoms.	<b>No</b> – While scrublands are present the project area is made up primarily of creosote with a low basal coverage.

**Table 1. New Mexico State Listed Species Potentially Occurring within Luna County**

Continued Table 1

Common Name Scientific Name	State Listing Status	Habitat	Potential to Occur in Project Area
<b>Neotropic cormorant</b> <i>Phalacrocorax brasilianus</i>	T	found on larger bodies of water such as reservoirs, where they prey on fish	<b>No-</b> Suitable riparian/aquatic habitat not present in project area.
<b>Whooping crane</b> <i>Grus americana</i>		Occupies the same habitats as sandhill cranes. Foraging areas are generally agricultural fields and valley pastures, particularly where there is waste grain or sprouting crops. Both species of cranes roost together, typically on sand bars in the Rio Grande	<b>No-</b> Suitable habitat not present in project area
<b>Violet-crowned hummingbird</b> <i>Amazilia violiceps</i>		Occurs in spring and early summer in Guadalupe Canyon, which is the key habitat area	<b>No-</b> Suitable habitat not present in project area
<b>Brown pelican</b>		usually found in marine habitats in warmer waters; except for the lower Colorado Basin and vicinity. Rarely occurs inland - feeds exclusively on fish	<b>No</b> – Suitable aquatic habitat not present in project area.
<b>REPTILES</b>			
<b>Reticulated Gila Monster</b> <i>Heloderma suspectum suspectum</i>	E	Occurs in desert scrub, most commonly associated with rocky regions of mountain foothills and canyons at elevation of 3,800 - 6,400 feet.	<b>Yes</b> - Potential habitat within the project area
<b>AMPHIBIANS</b>			
<b>Great Plains narrowmouth toad</b> <i>Gastrophryne cornutum</i>	E	Known to occur along NM Hwy 9 near Hermanas, NM. Collected in low-lying, flooded roadside ditches in desert scrub habitat.	<b>No-</b> No roadside ditches near the project area along NM Hwy 9.
<b>INVERTEBRATES</b>			
<b>Cook's Peak woodlandsnail</b> <i>Ashmunella macrophala</i>	T	Known only from the north slope of Cook's Peak in the Cook's Range, Luna County.	<b>No-</b> Cook's Peak is approximately 50 miles north of the project area.
<b>PLANTS</b>			

**Table 1. New Mexico State Listed Species Potentially Occurring within Luna County**

Continued Table 1

Common Name Scientific Name	State Listing Status	Habitat	Potential to Occur in Project Area
<b>Sand prickly pear</b> <i>Opuntia arenaria</i>	E	Sandy areas, particularly semi-stablized sand dunes among Chihuahuan desertscrub.	<b>Yes</b> – Suitable habitat occurs within the project area.
<b>Night blooming cereus</b> <i>Peniocereus greggii</i> var. <i>greggii</i>	E	Mostly in sandy to silty gravelly soils in gently broken to level terrain in desert grassland or Chihuahuan desertscrub.	<b>Yes</b> – Suitable habitat occurs within the project area.

Source: NMDGF 2003, 2004a-b; New Mexico Rare Plant Technical Council (NMRPTC) 2006; Young *et al.* 2005.



**Table 2. BLM Sensitive Species Potentially Occurring within Luna County**

Common Name Scientific Name	Habitat	Potential to Occur in Project Area
<b>BIRDS</b>		
<b>Baird's Sparrow</b> <i>Ammodramus bairdii</i>	Mainly a migrant but will occasionally winter in NM. Observed in native grassland habitat.	<b>No</b> – Grasslands not present in the project area
<b>Ferruginous Hawk</b> <i>Buteo regalis</i>	Winter visitors to southern NM. Associated with open habitat, such as grasslands.	<b>Yes</b> – Potential foraging habitat for wintering individuals, but not considered breeding habitat.
<b>Burrowing Owl</b> <i>Athene cunicularia hypugaea</i>	Occur in grasslands, prairies, or open areas near human habitation.	<b>No</b> – Suitable habitat not present.
<b>Loggerhead Shrike</b> <i>Lanius ludovicianus</i>	Prefers open stands of creosote and large succulents.	<b>Yes</b> – Suitable habitat present.
<b>FISH</b>		
<b>Longfin Dace</b> <i>Agosia chrysogaster</i>	Native to the Gila River system and introduced into Mimbres River system. Occupy small to medium size streams with sandy or gravelly bottoms, pools with overhanging banks or other cover.	<b>No</b> – No suitable aquatic habitat within the project area.
<b>MAMMALS</b>		
<b>Long-legged Myotis</b> <i>Myotis volans interior</i>	Primarily an inhabitant of forested areas, where it prefers high, open woods and mountainous terrain. Will occasionally roost in mines and caves.	<b>No</b> – Suitable habitat not present.
<b>Fringed Myotis</b> <i>Myotis thysanodes thysanodes</i>	Inhabits mid-elevation grasslands, deserts, and oak and pinyon pine woodlands. Will occasionally roost in mines and caves.	<b>No</b> – Suitable habitat not located within the project area.
<b>Pale Townsend's Big-eared Bat</b> <i>Plecotus townsendii pallescens</i>	Feeds in native oak and ironwood forests. Roosts almost exclusively in caves and abandoned mine shafts.	<b>No</b> – Suitable habitat not located within the project area.

**Table 2. BLM Sensitive Species Potentially Occurring within Luna County**

Continued Table 2

Common Name Scientific Name	Habitat	Potential to Occur in Project Area
<b>Desert Pocket Gopher</b> <i>Goemys arenarius arenarius</i>	Most common in soft alluvial soils of arroyo bottoms and flood plains.	<b>No</b> – Suitable habitat not located within the project area.
<b>REPTILES</b>		
<b>Texas Horned Lizard</b> <i>Phrynosoma cornutum</i>	Occupies arid and semiarid open country with loose soils that support bunchgrass, cactus, mesquite, juniper, or acacia.	<b>Yes</b> – Suitable habitat present.
<b>MOLLUSKS</b>		
<b>Cook's Peak Woodsnail</b> <i>Ashmunella macrophala</i>	Known only from the north slope of Cook's Peak in the Cook's Range, Luna County.	<b>No</b> – Cook's Peak is approximately 50 miles north of the project area.
<b>PLANTS</b>		
<b>Griffith's saltbush</b> <i>Atriplex griffithsii</i>	Saline playas where plants are not submerged for long periods.	<b>No</b> – Suitable habitat not located within the project area.
<b>Night blooming cereus</b> <i>Peniocereus greggii</i> var. <i>greggii</i>	Mostly in sandy to silty gravelly soils in gently broken to level terrain in desert grassland or Chihuahuan desertscrub.	<b>Yes</b> – Suitable habitat occurs within the project area.
<b>Contra Yerba (Chichuahuan scurf pea)</b> <i>Pediomelum pentaphyllum</i>	Desert grasslands or among creosote bush in sandy gravelly loam soils.	<b>Yes</b> – Suitable habitat occurs within the project area.

Source: Degenhardt *et al.* 1996; NMDFG 2004a, 2004 c-i; NMRPTC 2006.

USFWS Emblem

U.S. Fish & Wildlife Service

## Endangered Species List

[Back to Start](#)

**List of species by county for New Mexico:**

Counties Selected: Luna

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

Bernalillo	
Catron	
Chaves	
Cibola	
Colfax	

**Luna County**

<u>Common Name</u>	<u>Scientific Name</u>	<u>Species Group</u>	<u>Listing Status</u>	<u>Species Image</u>	<u>Species Distribution Map</u>	<u>Critical Habitat</u>	<u>More Info</u>
bald eagle	<i>Haliaeetus leucocephalus</i>	Birds	DM				<a href="#">P</a>
beautiful shiner	<i>Cyprinella formosa</i>	Fishes	T				<a href="#">P</a>
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	Amphibians	T				<a href="#">P</a>
gray wolf	<i>Canis lupus</i>	Mammals	DR, E, EXPN, T				<a href="#">P</a>
northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	Birds	E				<a href="#">P</a>
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Birds	E				<a href="#">P</a>
yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Birds	C				<a href="#">P</a>





## Listed and Sensitive Species in Hidalgo County

Total number of species: 51



Common Name	Scientific Name	Group	Status
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Bird	Candidate
Northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	Bird	Endangered
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Bird	Endangered
<b>Designated Critical Habitat</b>			
Gray Wolf (Mexican Gray Wolf)	<i>Canis lupus baileyi</i>	Mammal	Endangered
Jaguar	<i>Panthera onca</i>	Mammal	Endangered
Lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuena</i>	Mammal	Endangered
Mexican long-nosed bat	<i>Leptonycteris nivalis</i>	Mammal	Endangered
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	Amphibian	Threatened
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Bird	Threatened
<b>Designated Critical Habitat</b>			
Loach minnow	<i>Tiaroga cobitis</i>	Fish	Threatened
<b>Proposed Critical Habitat</b>			
Spikedace	<i>Meda fulgida</i>	Fish	Threatened
<b>Proposed Critical Habitat</b>			
New Mexico ridgenose rattlesnake	<i>Crotalus willardi obscurus</i>	Reptile	Threatened
<b>Designated Critical Habitat</b>			

### Species of Concern

**Species of Concern are included for planning purposes only.**

Common Name	Scientific Name	Group	Status
Lowland leopard frog	<i>Rana yavapaiensis</i>	Amphibian	Species of Concern
Animas minute moss beetle	<i>Limnebius aridus</i>	Arthropod - Invertebrate	Species of Concern
American peregrine falcon	<i>Falco peregrinus anatum</i>	Bird	Species of Concern

Arctic peregrine falcon	<i>Falco peregrinus tundrius</i>	Bird	Species of Concern
Baird's sparrow	<i>Ammodramus bairdii</i>	Bird	Species of Concern
Bell's vireo	<i>Vireo bellii</i>	Bird	Species of Concern
Common black hawk	<i>Buteogallus anthracinus</i>	Bird	Species of Concern
Gould's turkey	<i>Meleagris gallopavo mexicana</i>	Bird	Species of Concern
Mountain plover	<i>Charadrius montanus</i>	Bird	Species of Concern
Northern goshawk	<i>Accipiter gentilis</i>	Bird	Species of Concern
Northern gray hawk	<i>Buteo nitidus maxima</i>	Bird	Species of Concern
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	Bird	Species of Concern
Whiskered screech owl	<i>Otus trichopsis</i>	Bird	Species of Concern
Desert sucker	<i>Catostomus clarki</i>	Fish	Species of Concern
Roundtail chub	<i>Gila robusta</i>	Fish	Species of Concern
Sonora sucker	<i>Catostomus insignis</i>	Fish	Species of Concern
Arizona shrew	<i>Sorex arizonae</i>	Mammal	Species of Concern
Black-tailed prairie dog <sup>1</sup>	<i>Cynomys ludovicianus</i>	Mammal	Species of Concern
Mearns' southern pocket gopher	<i>Thomomys umbrinus mearnsi</i>	Mammal	Species of Concern
Mexican long-tongued bat	<i>Choenycteris mexicana</i>	Mammal	Species of Concern
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	Mammal	Species of Concern
Western red bat	<i>Lasiurus blossevillii</i>	Mammal	Species of Concern
White-sided jack rabbit	<i>Lepus callotis gaillardi</i>	Mammal	Species of Concern
Yellow-nosed cotton rat	<i>Sigmodon ochrognathus</i>	Mammal	Species of Concern
Hacheta Grande woodlandsnail	<i>Ashmunella hebardi</i>	Mollusc - Invertebrate	Species of Concern

Shortneck snaggletooth (snail)	<i>Gastrocopta dalliana dalliana</i>	Mollusc - Invertebrate	Species of Concern
Chiricahua mudwort	<i>Limosella publiflora</i>	Plant	Species of Concern
Contra yerba	<i>Pediomelum pentaphyllum</i>	Plant	Species of Concern
Coppermine milk-vetch	<i>Astragalus cobrensis var. maguirei</i>	Plant	Species of Concern
Desert night-blooming cereus	<i>Cereus greggii var. greggii</i>	Plant	Species of Concern
Griffith's saltbush	<i>Atriplex griffithsii</i>	Plant	Species of Concern
Gypsum hot spring aster	<i>Machaeranthera gypsitherma</i>	Plant	Species of Concern
Limestone rosewood	<i>Vauquelinia californica ssp. pauciflora</i>	Plant	Species of Concern
Ornate paintbrush	<i>Castilleja ornata</i>	Plant	Species of Concern
Parish's alkali grass	<i>Puccinellia parishii</i>	Plant	Species of Concern
San Carlos wild-buckwheat	<i>Eriogonum capillare</i>	Plant	Species of Concern
Gray-checkered whiptail	<i>Cnemidophorus dixonii</i>	Reptile	Species of Concern
Mexican garter snake	<i>Thamnophis eques</i>	Reptile	Species of Concern
Narrowhead garter snake	<i>Thamnophis rufipunctatus</i>	Reptile	Species of Concern

<b>Endangered</b>	Any species which is in danger of extinction throughout all or a significant portion of its range.	<b>Threatened</b>	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
<b>Candidate</b>	Candidate Species (taxa for which the Service has sufficient information to propose that they be added to list of endangered and threatened species, but the listing action has been precluded by other higher priority listing activities).	<b>Proposed</b>	Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under section 4 of the Act. This could be either proposed for endangered or threatened status.
<b>Species of Concern</b>	Taxa for which further biological research and field study are needed to resolve their conservation status OR are considered sensitive, rare, or declining on lists maintained by Natural Heritage Programs, State wildlife agencies, other Federal agencies, or professional/academic scientific societies. <b>Species of Concern are included for planning purposes only.</b>		

<b>Foot Notes:</b>	
<b>D</b> Designated Critical Habitat.	<b>P</b> Proposed Critical Habitat.
<b>1</b> Introduced population.	<b>3</b> Extirpated in this county.
<b>2</b> Survey should be conducted if project involves impacts to prairie dog towns or complexes of 200-acres or more	

for the Gunnison's prairie dog (*Cynomys gunnisoni*) and/or 80-acres or more for any subspecies of Black-tailed prairie dog (*Cynomys ludovicianus*). A complex consists of two or more neighboring prairie dog towns within 4.3 miles (7 kilometers) of each other.

*APPENDIX C*  
*AIR QUALITY CALCULATIONS*

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CALCULATION SHEET-COMBUSTABLE EMISSIONS

Assumptions for Combustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	10	240	720000
Diesel Road Compactors	1	100	10	240	240000
Diesel Dump Truck	1	300	10	240	720000
Diesel Excavator	1	300	10	240	720000
Diesel Hole Cleaners/Trenchers	1	175	10	240	420000
Diesel Bore/Drill Rigs	1	300	10	240	720000
Diesel Cement & Mortar Mixers	1	300	10	240	720000
Diesel Cranes	2	175	10	240	840000
Diesel Graders	1	300	10	240	720000
Diesel Tractors/Loaders/Backhoes	2	100	10	240	480000
Diesel Bull Dozers	0	300	10	240	0
Diesel Front End Loaders	1	300	10	240	720000
Diesel Fork Lifts	2	100	10	240	480000
Diesel Generator Set	3	40	10	240	288000

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

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	0.349	1.642	4.356	0.325	0.317	0.587	425.284
Diesel Road Paver	0.098	0.391	1.296	0.090	0.087	0.196	141.814
Diesel Dump Truck	0.349	1.642	4.356	0.325	0.317	0.587	425.284
Diesel Excavator	0.270	1.031	3.650	0.254	0.246	0.587	425.522
Diesel Hole Cleaners\Trenchers	0.236	1.129	2.689	0.213	0.204	0.343	247.990
Diesel Bore/Drill Rigs	0.476	1.817	5.673	0.397	0.389	0.579	420.285
Diesel Cement & Mortar Mixers	0.484	1.841	5.776	0.381	0.373	0.579	420.285
Diesel Cranes	0.407	1.203	5.295	0.315	0.305	0.676	490.796
Diesel Graders	0.278	1.079	3.753	0.262	0.254	0.587	425.522
Diesel Tractors/Loaders/Backhoes	0.979	4.343	3.819	0.725	0.704	0.503	365.564
Diesel Bull Dozers	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Front End Loaders	0.302	1.230	3.967	0.278	0.270	0.587	425.443
Diesel Aerial Lifts	1.047	4.105	4.528	0.735	0.714	0.503	365.406
Diesel Generator Set	0.384	1.193	1.895	0.232	0.225	0.257	186.395
<b>Total Emissions</b>	<b>5.658</b>	<b>22.648</b>	<b>51.053</b>	<b>4.531</b>	<b>4.405</b>	<b>6.570</b>	<b>4765.588</b>

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-SUMMARY OF EMISSIONS

<b>Proposed Action Construction Emissions for Criteria Pollutants (tons per year)</b>						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO <sub>2</sub>
Combustible Emissions	5.66	22.65	51.05	4.53	4.41	6.57
Construction Site-fugitive PM-10	NA	NA	NA	19.80	3.96	NA
Construction Workers Commuter & Trucking	1.44	13.52	1.59	0.02	0.02	NA
OBP Staff Commute	1.29	12.21	0.94	0.01	0.00	NA
<b>Total emissions</b>	<b>8.39</b>	<b>48.38</b>	<b>53.59</b>	<b>24.36</b>	<b>8.39</b>	<b>6.57</b>
De minimis threshold	NA	NA	NA	NA	NA	NA

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS

Construction Worker Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	240	15	15	0.65	0.77	1.41
CO	12.4	15.7	120	240	15	15	5.90	7.47	13.38
NOx	0.95	1.22	120	240	15	15	0.45	0.58	1.03
PM-10	0.0052	0.0065	120	240	15	15	0.00	0.00	0.01
PM 2.5	0.0049	0.006	120	240	15	15	0.00	0.00	0.01

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	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 Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02

OBP Commute to New Site									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	365	18	18	0.59	0.70	1.29
CO	12.4	15.7	60	365	18	18	5.39	6.82	12.21
NOx	0.95	1.22	60	365	18	18	0.41	0.53	0.94
PM-10	0.0052	0.0065	60	365	18	18	0.00	0.00	0.01
PM 2.5	0.0049	0.006	60	365	18	18	0.00	0.00	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 Characterization: 30 and 36 Personal Operated Vehicles (POVs) commuting to work were 50% are pick up trucks and 50% passenger cars.

CALCULATION SHEET-FUGITIVE DUST

<b>Fugitive Dust Emissions at New Construction Site.</b>					
<b>Construction Site</b>	<b>Emission Factor tons/acre/month (1)</b>	<b>Total Area- Construction Site/month</b>	<b>Months/yr</b>	<b>Total PM-10 Emissions tns/yr</b>	<b>Total PM-2.5 (2)</b>
Fugitive Dust Emissions	0.11	15.00	12	19.80	3.96

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/](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 1996)

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



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NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMAC	New Mexico Administrative Code
NM 9	New Mexico Highway 9
NMDGF	New Mexico Department Of Game And Fish
NMED	New Mexico Environmental Division
NMRPTC	New Mexico Rare Plant Technical Council
NMWRI	New Mexico Water Resources Research Institute
NO <sub>2</sub>	Nitrogen Dioxide
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
O <sub>3</sub>	Ozone
Pb	Lead
PCPI	per capita personal income
PEIS	Programmatic Environmental Impact Statement
PM-2.5	Particulate < 2.5 micrometers
PM-10	Particulate < 10 micrometers
PVB	permanent vehicle barriers
ROI	region of influence
ROW	Right-of-Way
SHPO	State Historic Preservation Officers
SO <sub>2</sub>	Sulfur Dioxide
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SRT	Special Response Teams
SWPPP	Stormwater Pollution Prevention Plan
TI	Tactical Infrastructure
TPI	Total Personal Income
TVB	temporary vehicle barriers
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USFWS	U.S. Fish and Wildlife Service's
USGS	U.S. Geological Survey
VRM	Visual Resource Management
WCA	Wildlife Conservation Act

