ENVIRONMENTAL STEWARDSHIP PLAN
FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE, SEGMENTS HV-1 THROUGH HV-3
U.S. Border Patrol El Paso Sector, Lordsburg Station, New Mexico

U.S. Department of Homeland Security
U.S. Customs and Border Protection
U.S. Border Patrol

December 2008

ACRONYMS AND ABBREVIATIONS

AO	Areas of Operation
BLM	Bureau of Land Management
BMP	Best Management Practices
BP	years before present
BRP	Biological Resources Plan
CAA	Clean Air Act
CBP	U.S. Customs and Border Protection
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CM&R	Construction Mitigation and Restoration
CRS	Congressional Research Service
CWA	Clean Water Act
dBA	decibel – A weighted scale
DHS	U.S. Department of Homeland Security
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESP	Environmental Stewardship Plan
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
IA	illegal alien
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
LASER	Labor Analysis Statistics and Economic Research
LWC	low water crossing
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMDGF	New Mexico Department of Game and Fish
NMDOT	New Mexico Department of Transportation
NRCS	Natural Resources Conservation Service
PCPI	per capita personal income
PEA	Programmatic Environmental Assessment
PM-10	Particulate <10 micrometers
POE	Port of Entry
POL	petroleum, oil, and lubricants
ROI	region of influence
SBI	Secure Border Initiative
SHPO	State Historic Preservation Officer
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SWPPP	Storm Water Pollution Prevention Plan
TI	Tactical Infrastructure

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COVER SHEET

ENVIRONMENTAL STEWARDSHIP PLAN FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE, SEGMENTS HV-1 THROUGH HV-3, U.S. BORDER PATROL EL PASO SECTOR, LORDSBURG STATION, NEW MEXICO

Responsible Agencies: United States (U.S.) Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP).

Coordinating Agencies: U.S. Army Corps of Engineers (USACE)-Albuquerque District; U.S. Fish and Wildlife Service (USFWS); U.S. Bureau of Land Management (BLM)–Las Cruces Field Office; and U.S. Section, International Boundary and Water Commission (USIBWC).

Affected Location: U.S./Mexico International border, west of the Antelope Wells Port of Entry (POE), Hidalgo County, New Mexico.

Project Description: The Project includes the construction, operation, and maintenance of 36 miles of tactical infrastructure (TI) to include vehicle fence and access and construction roads near and along the U.S./Mexico border within the USBP El Paso Sector, Lordsburg Station, New Mexico. In order to facilitate the construction activities four staging areas will also be used. The Project will be implemented in two discrete sections (HV1-2 and HV-3).

Report Designation: Environmental Stewardship Plan (ESP).

Abstract: CBP plans to construct, operate, and maintain approximately 36 miles of tactical infrastructure, which includes two discrete sections of vehicle fence, construction road, and access roads along the U.S./Mexico International border in the USBP El Paso Sector, Lordsburg Station, New Mexico. The HV-1 and HV-2 section begins approximately 1 mile west of Border Monument 69 and extends east 10.45 miles. The HV-3 segment begins approximately 1.5 miles west of Border Monument 64 and extends east 5.80 miles to Border Monument 62. The Normandy-style vehicle fence will be installed 3 to 6 feet north of the U.S./Mexico border. The vehicle fence will be comprised of steel and the construction roads will be 28 feet wide. This ESP analyzes and documents environmental consequences associated with the Project.

EXECUTIVE SUMMARY

INTRODUCTION

In Section 102(b) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), Congress mandated the United States (U.S.) Department of Homeland Security (DHS) to install fencing, barriers, roads, lighting, cameras, and sensors on not less than 700 miles of the southwest border. This total includes 370 miles of primary pedestrian fencing to be completed in 2008, in areas most practical and effective in deterring smugglers and aliens attempting to gain illegal entry into the U.S. In addition, DHS has committed to completing a total of 300 miles of vehicle fence along the southwest border by the end of 2008. As of March 21, 2008, 201 miles of primary pedestrian fence and 140 miles of vehicle fence remained to be constructed by December 2008.

On April 1, 2008, the Secretary of the DHS, pursuant to his authority under Section 102(c) of IIRIRA, exercised his authority to waive certain environmental and other laws in order to ensure the expeditious construction of tactical infrastructure along the U.S./Mexico border. The tactical infrastructure described in this Environmental Stewardship Plan (ESP) is covered by the Secretary's April 1, 2008, waiver (73 Federal Register [FR] 65, pp. 18293-24, Appendix A). Although the Secretary's waiver means that U.S. Customs and Border Protection (CBP) no longer has any specific legal obligations under the laws that are included in the waiver, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP strongly supports this objective and remains committed to being a good steward of the environment. CBP will continue to work in a collaborative manner with local government, state and Federal land managers, and the interested public to identify environmentally sensitive resources and develop appropriate Best Management Practices (BMPs) to avoid or minimize adverse impacts resulting from the installation of tactical infrastructure.

To that end, CBP has prepared the following ESP, which analyzes the potential environmental impacts associated with construction of tactical infrastructure in the U.S. Border Patrol's (USBP) El Paso Sector, Lordsburg Station area of operation. The ESP also discusses CBP plans to mitigate potential environmental impacts. The ESP further details the BMPs associated with the tactical infrastructure that CBP will implement during and after construction.

GOALS AND OBJECTIVES OF THE PROJECT

The goal of the Project is to increase border security within the USBP El Paso Sector with the ultimate objective of achieving effective control of our Nation's borders. The Project further meets the objectives of the Congressional direction in the Fiscal Year (FY) 2007 DHS Appropriations Act (Public Law [P.L.] 109-295), Border Security Fencing, Infrastructure, and Technology appropriation to install fencing, infrastructure, and technology along the border.

The USBP El Paso Sector identified a distinct area along the U.S./Mexico border that experiences high levels of illegal cross-border activity. This activity occurs in areas near Ports of Entry (POEs) where concentrated populations might live on either side of the border, contain thick vegetation that can provide concealment, is fairly remote and not easily accessed by USBP agents or have quick access to U.S. transportation routes. The Project will help to deter illegal entries within the USBP, Lordsburg Station area of operation, El Paso Sector by improving enforcement efficiency, thus preventing terrorists and terrorist weapons, illegal aliens, drugs, and other cross border violators and contraband from entering the U.S., while providing a safer work environment for USBP agents.

PUBLIC OUTREACH AND COORDINATION

CBP held meetings with the public and resource agencies and posted Project descriptions on www.BorderFencePlanning.com to elicit information on sensitive resources that may be present and/or potentially affected in the Project area. Information obtained has been included in the analysis of effects and presented in this ESP.

In addition to the public outreach program, CBP has continued to coordinate with various Federal and state agencies during the development of this ESP. These agencies are described in the following paragraphs.

U.S. Section, International Boundary and Water Commission (USIBWC) - CBP has coordinated with USIBWC to ensure that any construction along the international border does not adversely affect International Boundary Monuments or substantially impede floodwater conveyance within international drainages.

U.S. Army Corps of Engineers (USACE), Albuquerque District - CBP has coordinated activities with USACE to identify potential jurisdictional Waters of the U.S. (WUS), including wetlands, and to develop measures to avoid, minimize or compensate for losses to these resources.

U.S. Department of the Interior (DOI) - CBP has coordinated extensively with two resource managing agencies (U.S. Fish and Wildlife Service [USFWS] and U.S. Bureau of Land Management [BLM]) within DOI throughout the development of this ESP. The USFWS has assisted in identifying listed species that have the potential to occur in the Project area as well as preparation of the Biological Resources Plan (BRP). The BRP presents the analysis of potential effects to listed species and the BMPs proposed to reduce or off-set any adverse impacts. A copy of the BRP is contained in Appendix B. CBP has also continued to coordinate with BLM, since portions of other fence segments are planned for construction within or adjacent to BLM lands.

DESCRIPTION OF THE PROJECT

CBP will construct and maintain approximately 36 miles of tactical infrastructure (TI), which includes vehicle fence, access roads, and associated construction roads along the U.S./Mexico border in Hidalgo County, New Mexico. The TI is comprised of two discrete sections and will extend approximately from 1 mile west of Border Monument 69 east to 1.5 miles east of Border Monument 66 and from 1.5 miles west of Border Monument 64 eastward to Border Monument 62 (see Figures 1-1 and 1-2). The vehicle fence will be placed approximately 3 to 6 feet north of the U.S./Mexico International border, within the Roosevelt Reservation.

Upon the completion of construction, CBP will be responsible for repair and maintenance of the fence and construction and access roads. Such activities will include replacement or repair of fence segments that are vandalized, removal of debris that becomes entrapped along the fence or within any drainage structures, and grading of the road surface. These activities will occur on an as-needed basis; however, routine road maintenance will be expected to occur at least annually.

In order to facilitate operation of equipment, staging of materials, and construction access to the Project corridor, four temporary staging areas, totaling approximately 7 acres will be used. Vegetation will be cleared and grading may occur where needed in the staging areas. Upon completion of construction activities, the temporary staging areas will be rehabilitated.

Two access roads will be used as part of this Project. These roads will be up to 28 feet wide, will only be graded on an as needed basis, and will be used to access the fence construction area. The 60-foot wide Roosevelt Reservation will be used to provide construction vehicles and equipment access along the U.S./Mexico border.

SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION, AND BMPs

Table ES-1 provides an overview of potential environmental impacts by specific resource areas. Chapters 3 through 5 of this ESP address these impacts in more detail. CBP followed specially developed design criteria to reduce adverse environmental impacts and will implement BMPs and mitigation measures to further reduce or offset adverse environmental impacts. Design criteria to reduce adverse environmental impacts include selecting a route that will minimize impacts, consulting with Federal and state agencies and other stakeholders to avoid or minimize adverse environmental impacts, and developing appropriate BMPs to protect natural and cultural resources. Potential effects, including physical disturbance and construction of solid barriers on wetlands, riparian areas, streambeds, and floodplains, will be avoided or mitigated, as appropriate. BMPs will include implementation of a Storm Water Pollution Prevention Plan (SWPPP), Construction Mitigation and Restoration (CM&R) Plan, Spill Prevention Control and Countermeasures Plan (SPCCP), Dust Control Plan, Fire Prevention and Suppression Plan, and Unanticipated Discovery Plan to protect natural and cultural resources.

Table ES-1. Summary of Anticipated Environmental Impacts

Resource Area	Effects of the Project	Best Management Practices/Mitigation
Air Quality	Minor and temporary impact on air quality will occur during construction; air emissions will remain below *de minimis* levels.	Dust Control Plan. Fire Prevention and Suppression Plan. Maintain equipment according to specifications.
Land Use and Aesthetics	Approximately 9 acres of private lands will be impacted temporarily through the use of staging areas and passing zones There are no land use impacts within the 60-foot Roosevelt Reservation because TI implementation there is consistent with the intention of the Roosevelt Reservation. There will be a minor permanent impact on visual resources. Beneficial effects, such as reduced habitat degradation will be expected.	No mitigation neccesary.
Soils	Minor impacts to soils from a loss of biological production are expected as a result of new road construction. Construction of vehicle fence will result in minimal impacts.	Dust Control Plan.
Hydrology and Groundwater	A temporary and one-time water usage will require 22 acre-feet of water, creating a negligible to minor impact on the availability of water in the region. Grading and contouring will result in short-term minor adverse impacts.	SPCCP and CM&R plans.
Surface Waters and Waters of the United States	Minor and temporary impacts on surface water resources from sedimentation and erosion caused by construction are expected. Impacts will be minimized through mitigation measures, as appropriate. Direct impact on approximately 22 potentially jurisdictional Waters of the U.S. (WUS) (0.67 acre total) and 0.3 acres of potential jurisdictional wetlands are also expected. Minor and temporary impacts on surface water resources from sedimentation and erosion are expected as a result of construction. Surface runoff potential will result in short-term minor adverse impacts on wetlands.	Mitigation for 0.3 acres potential jurisdiction wetlands, SWPPP.
Vegetation Resources	Permanent loss of 186 acres of vegetation communities due to construction of TI. Approximately 9 acres of vegetation will be temporarily impacted via the use of staging areas but will be rehabilitated upon completion of the construction activities.	Fire Suppression and Prevention Plan. Biological monitor on site during construction to ensure all BMPs and mitigation plans are followed.
Wildlife and Aquatic Resources	Negligible impact on wildlife expected. Some permanent loss of habitat. Potential loss of small mammals and reptiles during construction. There are no aquatic resources in the Project corridor.	No mitigation necessary.

Table ES-1, continued

Resource Area	Effects of the Project	Best Management Practices/Mitigation
Threatened and Endangered Species	May effect, but not likely to adversely affect five Federally listed species (Northern aplomado falcon [*Falco femoralis septentrionalis],* jaguar [*Panthera onca*], Mexican long-nosed bat [*Leptonycteris nivalis*], lesser long-nosed bat [*Leptonycteris cuasoae yerbabuenae*], and New Mexico ridge-nosed rattlesnake [*Crotalus willardi obscurus*]). Likely to adversely affect the Chiricahua leopard frog (*Rana chiricahuensis*).	Disease prevention protocols will be employed if the Project is in areas known or likely to harbor chytridiomycosis.
Cultural Resources	Cultural resources surveys were completed within the Project footprint.	CBP will mitigate for impacts to cultural resources, as appropriate, in coordination with the land managers.

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SECTION 1.0
GENERAL PROJECT DESCRIPTION

1.0 GENERAL PROJECT DESCRIPTION

1.1 INTRODUCTION TO THE ENVIRONMENTAL STEWARDSHIP PLAN (ESP)

In Section 102(b) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), Congress mandated that the United States (U.S.) Department of Homeland Security (DHS) install fencing, barriers, roads, lighting, cameras, and sensors on not less than 700 miles of the southwest border. This total includes certain priority miles of fencing in areas most practical and effective in deterring illegal entry and smuggling into the U.S. Congress has mandated that these priority miles be completed by December 2008. To that end, DHS plans to complete 370 miles of pedestrian fencing and 300 miles of vehicle fencing along the southwest border by the end of 2008. As of March 21, 2008, 201 miles of primary pedestrian fence and 140 miles of vehicle fence remained to be constructed by December 2008. These efforts support the U.S. Customs and Border Protection (CBP) mission to prevent terrorists and terrorist weapons from entering the U.S., while also facilitating the flow of legitimate trade and travel.

On April 1, 2008, the Secretary of the DHS, pursuant to his authority under Section 102(c) of IIRIRA, exercised his authority to waive certain environmental and other laws in order to ensure the expeditious construction of tactical infrastructure along the U.S./Mexico border. The tactical infrastructure (TI) described in this Environmental Stewardship Plan (ESP) is covered by the Secretary's April 1, 2008, waiver (73 Federal Register [FR] 65, pp. 18293-24, Appendix A). Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the laws that are included in the waiver, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP strongly supports this objective and remains committed to being a good steward of the environment. CBP will continue to work in a collaborative manner with local government, state and Federal land managers, and the interested public to identify environmentally sensitive resources and develop appropriate Best Management Practices (BMPs) to avoid or minimize adverse impacts resulting from the installation of tactical infrastructure.

To that end, CBP has prepared the following ESP, which analyzes the potential environmental impacts associated with construction of tactical infrastructure in the U.S. Border Patrol's (USBP) El Paso Sector, Lordsburg Station area of operation (AO). The ESP also discusses CBP's plans to mitigate unavoidable environmental impacts. The ESP further details the BMPs associated with the tactical infrastructure that CBP will implement during, and after construction.

The Project area covered by this ESP has been determined to be an area of high illegal entry into the U.S. As such, the Project area is designated as an area where completion of border TI must be accomplished in an expeditious manner, and the Secretary of DHS has waived compliance with Federal regulations and legal requirements necessary for the completion of the TI (i.e., the Project). This ESP is

prepared in order to evaluate impacts of the Project on natural and human resources in the Project corridor, and to assist CBP in protecting critical resources during construction and operation of the TI being installed for the Project. This ESP is designed in a format that identifies each affected resource and evaluates all potential impacts to each resource, with the intent to minimize resource impacts to the extent practicable. This ESP was not prepared to comply with specific laws or regulations; rather it is a planning and guidance tool to assist CBP to accomplish construction in a manner that will minimize adverse impacts to the extent practicable.

CBP will construct, operate, and maintain approximately 36 miles of TI, which includes vehicle fence, construction road, and access roads along the U.S./Mexico border in Hidalgo County, New Mexico. This action is in support of the USBP El Paso Sector mission and will occur within the Lordsburg Station's AO. The vehicle fence and associated roads will extend approximately 1 mile west of Border Monument 69 to 1.5 miles east of Border Monument 66 and from 1.5 miles west of Border Monument 64 to Border Monument 62. All fence construction activities will occur within the Roosevelt Reservation. The vehicle fence will be installed approximately 3 to 6 feet north of the U.S./Mexico border. Figure 1-1 is a vicinity map while Figure 1-2 illustrates the Project location of the planned TI.

In 2006, CBP and the Office of Border Patrol released the *Programmatic Environmental Assessment (PEA) for Proposed Tactical Infrastructure, Office of Border Patrol, El Paso Sectors, New Mexico Stations, July 2006*. This PEA and Finding of No Significant Impact are herein referred to as the 2006 PEA (CBP 2006). The purpose of the 2006 PEA was to address the potential effects, beneficial and adverse, of the proposed installation, operation, and maintenance of various existing and proposed TI throughout the El Paso Sector, New Mexico stations' AO on a programmatic level. Data from this document has been incorporated by reference, as appropriate, during the preparation of this ESP.

Figure 1-1: Vicinity Map

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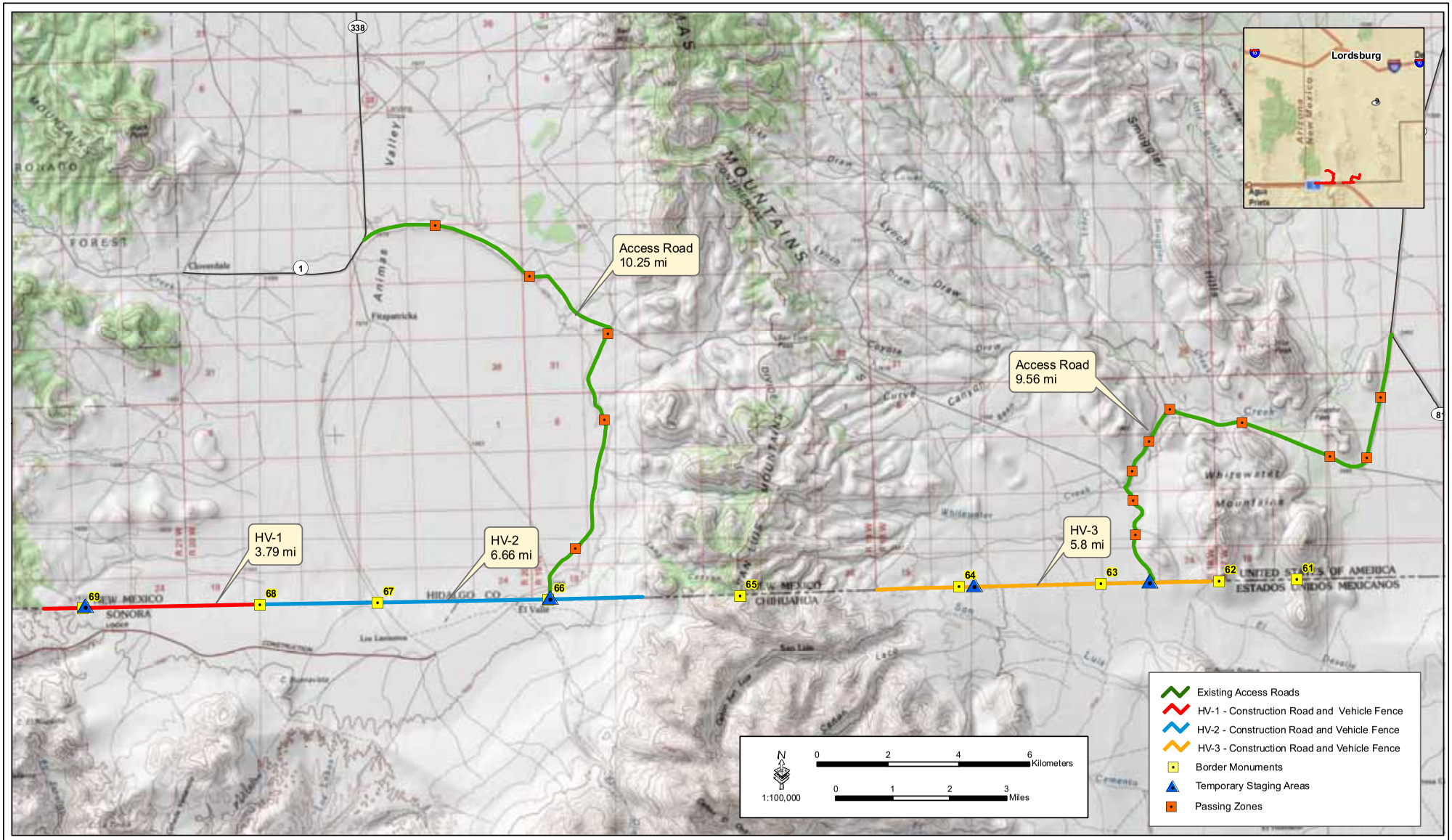

Figure 1-2: Project Corridor

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1.2 USBP BACKGROUND

The mission of CBP is to prevent terrorists and terrorist weapons from entering the U.S., while also facilitating the flow of legitimate trade and travel. In supporting CBP's mission, USBP is charged with establishing and maintaining effective control of the U.S. border. USBP's mission strategy consists of five main objectives:

- Establish substantial probability of apprehending terrorists and their weapons as they attempt to enter illegally between the Ports of Entry (POEs).
- Deter illegal entries through improved enforcement.
- Detect, apprehend, and deter smugglers of humans, drugs, and other contraband.
- Leverage "smart border" technology to multiply the effect of enforcement personnel.
- Reduce crime in border communities and consequently improve quality of life and economic vitality of targeted areas.

USBP has nine administrative sectors along the U.S./Mexico International border. Each sector is responsible for implementing an optimal combination of personnel, technology, and infrastructure appropriate for its operational requirements. The El Paso Sector is responsible for Luna, Hidalgo, and Doña Ana counties, New Mexico, and El Paso and Hudspeth counties, Texas. The area affected by the Project includes the southernmost portion of Hidalgo County, New Mexico.

1.3 GOALS AND OBJECTIVES OF THE PROJECT

The goal of the Project is to increase border security within the USBP El Paso Sector with the ultimate objective of achieving effective control of our Nation's borders. The Project further meets the objectives of the Congressional direction in the Fiscal Year (FY) 2007 DHS Appropriations Act (Public Law [P.L.] 109-295), Border Security Fencing, Infrastructure, and Technology appropriation to install fencing, infrastructure, and technology along the border.

The USBP El Paso Sector identified a distinct area along the border that experiences high levels of illegal cross-border activity. This activity typically occurs in areas near POEs where concentrated populations might live on either side of the border, contain thick vegetation that can provide concealment, is fairly remote and not easily accessed by USBP agents, or have quick access to U.S. transportation routes. The Project will help to deter illegal entries within the USBP El Paso Sector by improving enforcement efficiency, thus preventing terrorists and terrorist weapons, illegal aliens, drugs, and other cross border violators and contraband from entering the U.S., while providing a safer work environment for USBP agents.

1.4 STAKEHOLDER AND PUBLIC OUTREACH

CBP held meetings with the public and resource agencies and posted Project descriptions on www.BorderFencePlanning.com to elicit information on sensitive resources that may be present and/or potentially affected in the Project area. Information obtained has been included in the analysis of effects and presented in this ESP.

In addition to the public outreach program, CBP has continued to coordinate with various Federal and state agencies during the development of this ESP. These agencies are described in the following paragraphs.

U.S. Section, International Boundary and Water Commission (USIBWC) - CBP has coordinated with USIBWC to ensure that any construction along the international border does not adversely affect International Boundary Monuments or substantially impede floodwater conveyance within international drainages.

U.S. Army Corps of Engineers (USACE), Albuquerque District - CBP has coordinated activities with USACE to identify potential jurisdictional Waters of the U.S. (WUS), including wetlands, and to develop measures to avoid, minimize or compensate for losses to these resources.

U.S. Department of the Interior (DOI) - CBP has coordinated extensively with two resource managing agencies (U.S. Fish and Wildlife Service [USFWS] and U.S. Bureau of Land Management [BLM]) within DOI throughout the development of this ESP. The USFWS has assisted in identifying listed species that have the potential to occur in the Project area as well as preparation of the Biological Resources Plan (BRP). The BRP presents the analysis of potential effects to listed species and the BMPs proposed to reduce or off-set any adverse impacts. A copy of the BRP is contained in Appendix B. CBP has also continued to coordinate with BLM, since portions of other fence segments are planned for construction within or adjacent to BLM lands.

1.5 SUMMARY OF MITIGATION AND BMPs

It is CBP's policy to reduce impacts through the sequence of avoidance, minimization, mitigation, and if appropriate, compensation. Mitigation efforts vary and include activities such as restoration of habitat in other areas, and implementation of appropriate BMPs. CBP coordinates its mitigation measures with the appropriate Federal and state resource agencies, as appropriate.

This section 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 by CBP as standard operating procedures on past Projects. A summary of mitigation measures is presented for each resource category that will be potentially affected. It should be emphasized that these are general mitigation measures; development of specific mitigation measures have been on-going

for certain activities implemented under the Project and are in included in the BRP (see Appendix B). The mitigation measures will be coordinated through the appropriate agencies and land managers or administrators, as appropriate.

1.5.1 General Construction Activities

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted industry guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although a major spill is unlikely to occur, any spill of 5 gallons or more will be contained immediately within an earthen dike, and an absorbent (e.g., granular, pillow, sock, etc.) will be applied to contain the spill. Furthermore, a spill of any regulated substance in a reportable quantity will be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of regulated substances will be included as part of a Project-specific Spill Prevention, Control and Countermeasures Plan (SPCCP). An SPCCP will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan.

All equipment maintenance, laydown, and dispensing of fuel, oil, or any other such activities, will occur in staging areas identified for use in this ESP. The designated staging areas will be located in such a manner as to prevent any runoff from entering WUS, including wetlands. All used oil and solvents will be recycled if possible. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed in manners consistent with U.S. Environmental Protection Agency (EPA) standards.

Solid waste receptacles will be maintained at staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Waste materials and other discarded materials contained in these receptacles will be removed from the site as quickly as possible. Solid waste will be collected and disposed of properly.

Once activities in any given construction segment of the Project corridor are completed, active measures will be implemented to rehabilitate the staging areas. CBP will coordinate with the appropriate land managers to determine the most suitable and cost-effective measures for successful rehabilitation.

For successful rehabilitation, all or some of the following measures may be conducted on the part of CBP:

- Site preparation through ripping and disking to loosen compacted soils.

- Hydromulch with native grasses and forbs in order to control soil erosion and ensure adequate re-vegetation.
- Planting of native shrubs as needed.
- Temporary irrigation (i.e., truck watering) for seedlings.
- Periodic monitoring to determine if additional actions are necessary to successfully rehabilitate disturbed areas.

1.5.2 Air Quality

Mitigation measures will be incorporated to ensure that particulate matter less than 10 microns in size (PM-10) emission levels remain minimal. Measures will include dust suppression methods to minimize airborne particulate matter created during construction activities. Standard construction BMPs, such as routine watering of the construction site and access roads, will be used to control fugitive dust during the construction phases of the Project. Additionally, all construction equipment and vehicles will need to be kept in good operating condition to minimize exhaust emissions.

1.5.3 Soils

Proper site-specific BMPs are designed and utilized to reduce the impact of non-point source pollution during construction activities. BMPs include such things as buffers around washes to reduce the risk of siltation, installation of waterbars to slow the flow of water down hill, and placement of culverts, low-water crossings, or bridges where washes need to be traversed. These BMPs will greatly reduce the amount of soil lost to runoff during heavy rain events and ensure the integrity of the construction site. Soil erosion BMPs can also beneficially impact air quality by reducing the amount of fugitive dust.

Areas with highly erodible soils will be given special consideration to ensure incorporation of various and effective compaction techniques, aggregate materials, wetting compounds, and rehabilitation to reduce potential soil erosion. Erosion control measures such as waterbars, gabions, straw bales, and re-vegetation will be implemented during and after construction activities. Re-vegetation efforts will be implemented to ensure long-term recovery of the area and to prevent significant soil erosion problems.

1.5.4 Water Resources

CBP will require its contractor(s) to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) to avoid or reduce erosion and sedimentation outside the construction footprint. Coordination with the Regulatory Functions Branch of USACE, Albuquerque District will continue in order to avoid or reduce construction-related impacts to washes and arroyos that are potentially jurisdictional WUS. Compensatory mitigation will be implemented, as appropriate.

All engineering designs and subsequent hydrology reports will be provided to USIBWC prior to start of construction activities for recommendations of measures to avoid an increase, concentration, or relocation of overland surface flows into either the U.S. or

Mexico. Furthermore, CBP will routinely check and maintain drainage structures, including low water crossings, and vehicle fence installed within drainages. Such activities may include, but are not limited to, removal of debris that would impede proper conveyance, repair and maintenance of erosional features, installation of energy dissipation measures, and re-vegetation of temporarily disturbed areas.

1.5.5 Biological Resources

Construction equipment will be cleaned using a high-pressure water system prior to entering and departing the Project corridor to minimize the spread and establishment of non-native invasive plant species. Soil disturbances in temporary impact areas will be rehabilitated. Rehabilitation includes re-vegetation or the distribution of organic and geological materials over the disturbed area to reduce erosion while allowing the area to naturally revegetate. Rehabilitation methods will be outlined in a rehabilitation plan. At a minimum, the rehabilitation plan will include: the plant species to be used, a planting schedule, measures to control non-native species, specific success criteria, and the party responsible for maintaining and meeting the success criteria. Seeds or plants native to Hidalgo County will be used to the extent practicable.

Disturbed and restored areas will be monitored for the spread and eventual eradication of non-native invasive plant species as part of periodic maintenance activities as appropriate.

A qualified biologist (i.e., professional biologist with education and training in wildlife biology or ecology) will monitor construction operations to ensure adherence with the BMPs and provide advice to the construction contractor as needed.

Disease prevention protocols will be employed if the Project is in areas known or likely to harbor chytridiomycosis. CBP is coordinating with land owners and USFWS to identify these areas. In such cases, if construction vehicle/equipment use will occur in more than one suitable Chiricahua leopard frog (*Rana chiricahuensis*) habitat, all equipment will be cleaned and dried or disinfected before it moves to another location with suitable habitat.

1.5.6 Cultural Resources

Surveys were conducted to identify sites within the Project corridor. CBP will avoid or mitigate impacts to sites, as appropriate, in coordination with the land manager.

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SECTION 2.0
DESCRIPTION OF THE PROJECT

2.0 DESCRIPTION OF THE PROJECT

The Project consists of constructing, operating, and maintaining approximately 36 miles of TI, which consists of vehicle fence, two access roads, 14 passing zones, and associated construction roads. In order to facilitate construction four staging areas will be used. The vehicle fence will be placed approximately 3 to 6 feet north of the U.S./Mexico border, within the Roosevelt Reservation. The TI will extend 1.5 miles west of Border Monument 69 eastward to 1.5 miles east of Border Monument 66 (HV-1 and HV-2) and from 1.5 miles west of Border Monument 64 eastward to Border Monument 62 (HV-3) in southern Hidalgo County, New Mexico (see Figure 1-2).

Photograph 2-1. Vehicle Fence (Normandy-style).

As the name implies, vehicle fences are structures designed to prevent illegal vehicle traffic; however, they are not designed to preclude pedestrian or wildlife movement. The vehicle fence (Normandy-style) to be constructed and installed as part of the Project (Photograph 2-1) will be placed along the border and result in negligible permanent ground disturbance. The Normandy-style vehicle fence is typically constructed of welded metal similar to railroad rail. This type of vehicle fence cannot be rolled or moved manually, and must be lifted using a forklift or front-end loader. The barriers will be constructed within the staging areas or Roosevelt Reservation, transported throughout the Project corridor, placed on the ground, anchored to the ground every 24-feet using a concrete or steel anchor only on slopes greater than 20 percent and near washes, and then welded together. A typical section of Normandy-style vehicle fence is 24 feet long and stands 4 to 6 feet high. Additionally, the vehicle fence will be outfitted with pipe, tubing, or a similar material that will parallel the horizontal rail no lower than 16 inches from the ground and no higher than 48 inches for the purposes of preventing livestock from crossing. Big game panels will also be installed every 1,300 feet to allow large ungulates (i.e., mule deer [*Odocoileus hemionus*]) to easily cross the fence. The panels will consist of steel tubing approximately 12 to 16 feet long placed at the same height as the rail on the vehicle fence. The panels will be similar in appearance to a gate.

Construction roads are needed to construct the TI and provide a safe driving surface along the border. These are located adjacent to the vehicle fence and will be 28 feet wide including adequate drainage ditches. Aggregate will be added to the surface of the road as part of the construction activities to reduce erosion and future maintenance activities. Water bars will be installed at various locations along the road to direct storm water into parallel ditches or down slope to reduce erosion of the road surface. Upon

completion of the construction activities the construction roads will be used for patrolling, dragging, and maintenance of the vehicle fence.

The new construction roads will also include the construction of low water crossings (LWC). LWCs will consist of concrete slabs designed with suitable approach angles. Culverts may also be incorporated into the design of LWCs, as appropriate. The size and number of culverts required will depend upon the width of the drainage and the expected flood flow volumes and velocities at each of the drainage crossings. Each drainage structure will be designed to ensure that flows are not impeded, thus avoiding creation of backwater areas. The designs will also ensure that water velocity is not significantly changed at the outfall. Stilling basins, rip rap, gabion baskets, and other designs will be used on both ends of the drainage structure to dissipate the water flow energy. Head, tail, and cut-off walls will be constructed, as appropriate, to reduce scouring and ensure the stability of the drainage structure.

Access roads provide access to the border fence itself, as well as the border fence construction road. Within the Project corridor, approximately 19.8 miles of existing access roads will be used. Two north-south oriented roads provide direct access to the border from State Routes 1 and 81 in Hidalgo County. These access roads will not exceed 28-feet in width but will have aggregate placed on them. The aggregate and any other improvements made to these access roads will be removed to the greatest extent practicable within a year of completion of the construction activities. As part of the Project, 14 passing zones will be developed to allow for safe passage of transport vehicles and equipment. These passing zones will be approximately 60 feet wide by 200 feet long and will encompass the access road (Figure 2-1). Aggregate will be placed in these passing zones; however, the aggregate will be removed to the extent practicable within a year of completing construction activities and brought back to preconstruction condition.

In order to facilitate operation of equipment, staging of materials, and construction access to the Project corridor, four temporary staging areas, totaling approximately 7 acres will be used. Vegetation will be cleared and grading may occur where needed in the staging areas. Upon completion of construction activities, the temporary staging areas will be rehabilitated.

To account for heat restrictions for adequate concrete drying and curing processes, most concrete pours for low water crossings, other drainage structures, and fencing will need to take place during the pre-dawn hours. However, the possibility exists that work will have to occur on a 24-hour basis. A 24-hour schedule will be implemented only when additional efforts are needed in order to maintain the work task schedule as Federally mandated. In order to facilitate construction activities during these work

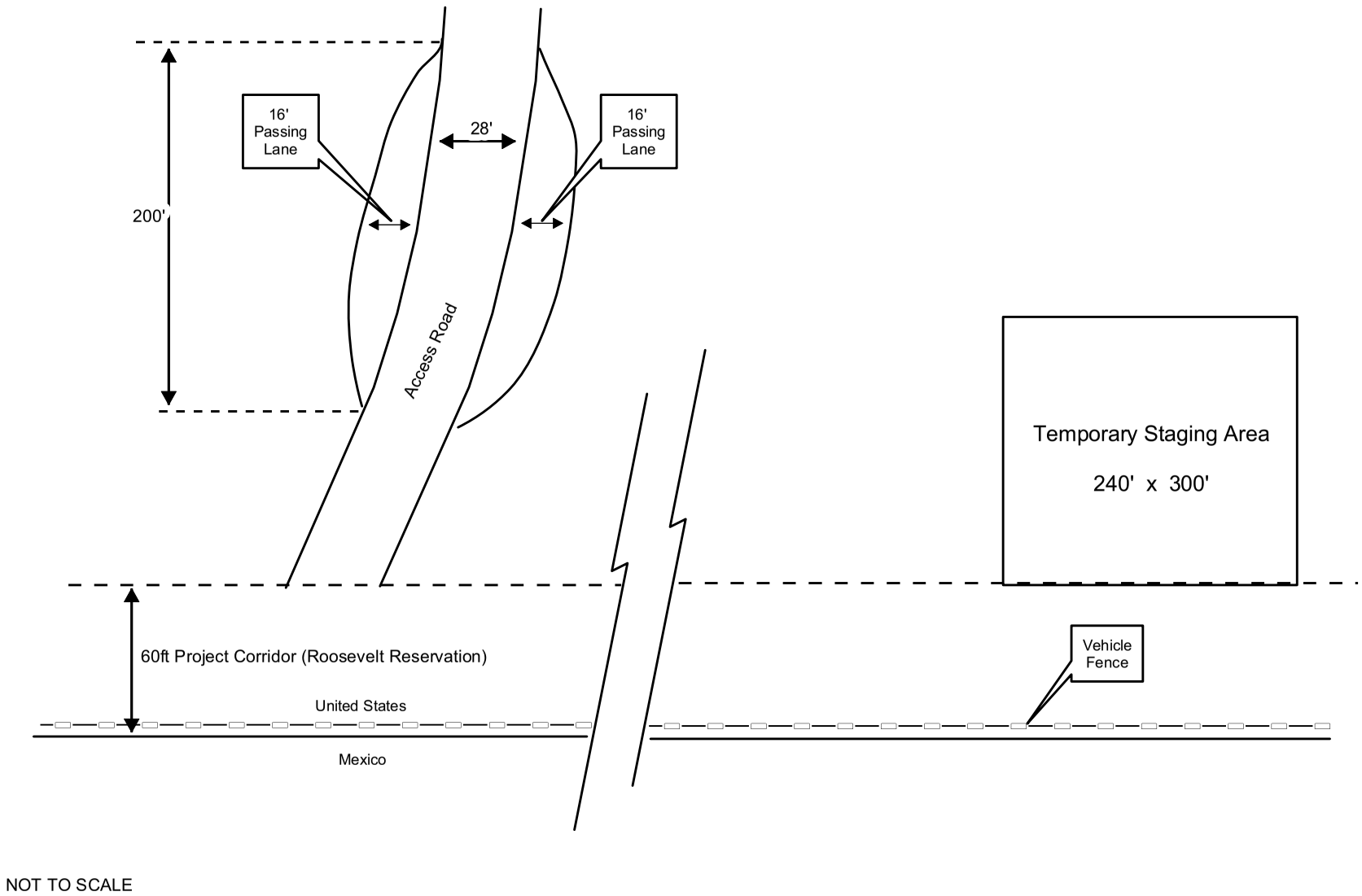

Figure 2-1 Schematics of Project Corridor

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hours, portable lights will be used (Photograph 2-2). It is estimated that no more than 12 lights will be in operation at any one time at each Project site.

Photograph 2-2. Portable lights

A 6-kilowatt self-contained diesel generator powers these lights. Each unit typically has four 400- to 1000-watt lamps. The portable light systems can be towed to the desired construction location as needed and removed upon completion of construction activities. If construction or maintenance activities continue at night, all lights will be shielded to direct light only onto the area required for worker safety and productivity. The minimum wattage needed will be used and the number of lights will be minimized.

The construction footprint of the Project will be contained primarily within the 60-foot wide Roosevelt Reservation (except for the staging areas), which was set aside in 1907 by President Roosevelt as a border enforcement zone. Additionally, all materials and equipment that will be stored onsite will be done so within the designated staging areas. The Project will be constructed by private contractors, though some military units could be used to assist in road construction. The anticipated completion date for the construction is December 2008.

SECTION 3.0
ENVIRONMENTAL BASELINE AND EVALUATION

3.0 ENVIRONMENTAL BASELINE AND EVALUATION

3.1 INTRODUCTION

CBP has compiled extensive information about the environmental resources that will be affected by the construction, operation and maintenance of TI along the U.S/Mexico border. CBP used this information to establish the baseline against which it evaluated the impacts of the construction, maintenance and operation of the vehicle fence and supporting infrastructure. CBP obtained baseline regulatory information from many sources, including the Clean Air Act (CAA), Endangered Species Act (ESA), Clean Water Act (CWA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), National Historic Preservation Act (NHPA), Executive Order (EO) 12898, and EO 13045.

Some resources within the Project's region of influence (ROI) are not addressed in this ESP because they are not relevant to the analyses. Resources that are not addressed, and the reasons for eliminating them, are:

- Utilities: The Project will not affect any public utilities because none are located in the Project corridor.
- Communications: The Project will not affect communications systems because there are not any in the Project corridor.
- Geology: The Project will result in minor, localized effects on surficial geological features. Topography will be slightly altered within the Project footprint; however, physiography of the Project region will not be affected.
- Climate: The Project will not affect nor be affected by the climate.
- Wild and Scenic Rivers: The Project will not affect any designated Wild and Scenic Rivers because no rivers designated as such are located within or near the Project corridor.
- Transportation: The Project corridor is located in a remote region of New Mexico and no activities will take place on public roadways, other than normal transport of goods and personnel on an intermittent basis during construction activities. Therefore, impacts to roadways and traffic will not be discussed further.
- Prime farmlands: No impact will occur to soils protected by the Farmland Protection Policy Act since none are located within the Project corridor.
- Human Health and Safety: The Occupational Safety and Health Administration and EPA issue standards that specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits with respect to workplace stressors. Contractors will be required to establish and maintain safety programs at the construction site, consistent with these standards. All vehicle traffic will be on public and private roads with

very little traffic and in an area of New Mexico with an extremely low population density. All contractors will adhere to existing traffic laws. Therefore, the Project will not expose members of the general public to increased safety risks.

- Environmental Justice and Protection of Children: The Project corridor is located in a remote region of New Mexico. No residences or businesses are located near or within the Project corridor. No children will be impacted as a result of the Project.
- Noise: Due to the remote location of the Project site, the type of construction planned, and the lack of sensitive noise receptors in the area, a noise impacts discussion is not warranted for this Project. Noise impacts to wildlife will be discussed in the biological resources section.
- Recreation: The Project will be built in the Roosevelt Reservation and is not part of any dedicated recreation area; the Roosevelt Reservation is bordered by private land to the north, and there are no significant recreational opportunities on public land in the Project area. Therefore, recreation impacts will not be discussed further.

For those resources that will be impacted, Table 3-1 shows the individual segments and the associated TI and the acreage impacted within each segment of the Project. Through out Section 3 of this ESP, permanent impacts are attributed to the construction and access roads while temporary impacts relate to the use of the staging areas and passing zones. These temporarily impacted areas will be rehabilitated upon completion of the construction activities. The access roads will be up to 28 feet wide; therefore, impacts related to construction activities on the access roads will use this width as the standard. The footprint of the construction roads are 28 feet; however, the Project allows for use of the entire 60-foot wide Roosevelt Reservation. Thus, impacts related to the construction road and vehicle fence are based on a 60-foot wide footprint.

Table 3-1. TI and Impacts in each Segment of the Project

TI Segment	Construction Road / Vehicle Fence (Acreage)	Access Roads (Acreage)	Passing Zone (Acreage)	Staging Areas (Acreage)
HV-1	28	0	0	1.65
HV-2	49	35	0.7	1.65
HV-3	42	32	1.3	3.3
Total	119	67	2	6.6

3.2 AIR QUALITY

3.2.1 Environmental Setting

Information on air quality within the Project corridor was discussed and described in the 2006 PEA, and is incorporated herein by reference. Hidalgo County is currently in attainment of all criteria pollutants (CBP 2006; EPA 2008).

3.2.2 Effects of the Project

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the CAA for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the CAA as the basis for evaluating potential environmental impacts and appropriate mitigations.

A minimal increase in local air pollution will be expected from vehicle fence and road construction. Temporary increases in air pollution will result from the use of construction equipment, portable lights, and fugitive dust. Due to the short duration of the Project, any impacts on ambient air quality during construction activities are expected to be short-term, and can be reduced through the use of standard dust control techniques such as roadway watering. During construction, proper and routine maintenance of all vehicles and other construction equipment will ensure that emissions are within the equipment's design standards. Air emissions from the Project will be temporary and will result in negligible impacts on air quality in the region.

EPA's NONROAD 2005 Model was used, as recommended by EPA's *Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999* (EPA 2001), to calculate emissions from construction equipment such as bulldozers, and cranes. Assumptions were made regarding the type of equipment, the total number of days each piece of equipment will be used, and the number of hours per day each type of equipment will be used.

Similarly, emissions from delivery trucks and commuters traveling to the job site, were calculated using the EPA MOBILE6.2 Model (EPA 2001). Construction workers will temporarily increase the combustible emissions in the airshed during their commute to and from the Project area. These emissions were calculated in the air emission analysis and included in the total emission estimates.

Furthermore, large amounts of dust (i.e., fugitive dust) can arise from the mechanical disturbance of surface soils, including grading, driving, and road and fence construction. Fugitive dust emissions were calculated using the emission factor of 0.11 ton per acre per month, which is a more current standard than EPA's 1985 *Compilation of Air Pollutant Emission Factors*, also known as AP-42 (EPA 2001). The total air quality emissions were calculated for the construction activities occurring in Hidalgo County to compare to the General Conformity Rule. Results of these calculations are presented in Table 3-2 and Appendix C.

Table 3-2. Total Air Emissions (tons/year) from Construction Activities vs. *de minimis* Levels

Pollutant	Total (tons/year)	*de minimis* Thresholds (tons/year)
Carbon Monoxide	28.19	Not applicable
Volatile Organic Compounds	5.67	Not applicable
Nitrogen Oxides	45.90	Not applicable
PM-10	27.41	Not applicable
Particulate <2.5 micrometers	8.37	Not applicable
Sulfur Dioxide	5.92	Not applicable

Source: 40 Code of Federal Regulations 51.853 and GSRC air emission model Projections.

The *de minimis* thresholds for all criteria pollutants in Hidalgo County are not applicable because the county is in attainment for all pollutants. However, 100 tons per year emissions is the average *de minimis* threshold for the pollutants listed in Table 3-2. The Project emissions will be below these average thresholds. Therefore, negligible impacts on air quality from the implementation of the Project will occur.

Impacts from combustible air emissions from USBP traffic are expected to be the same before and after the construction activities. Construction workers will temporarily increase the combustible emissions in the air shed during their commute to and from the Project area.

Diesel generators will be used to power the portable lights, and these generators will cause low amounts of air emissions. Since amounts will be below the *de minimis* threshold (i.e., 100 tons per year), emissions will not violate National or state standards. If a 24-hour work schedule is needed, then the portable lights will operate throughout the night; however, this will be temporary, and as construction activities are completed within a particular area the lights will be relocated to a new area. Furthermore, a 24-hour schedule will only occur due to unforeseen circumstances or if Federally mandated schedules dictate it to be necessary. Regardless, the impacts from the operation of the light generators will be temporary; thus, they will have negligible effects on air quality in the region.

Construction and operation of TI will increase border security in the Project corridor and may result in a change to illegal traffic patterns. However, changes to illegal alien (IA) traffic patterns result from a myriad of factors and, therefore, are considered unpredictable and beyond the scope of this ESP.

3.3 LAND USE AND AESTHETICS

3.3.1 Environmental Setting

3.3.1.1 Land Use

The Project will remain within the Roosevelt Reservation with the exception of the use of and improvements to four staging areas, passing zones, and access roads. The staging areas and passing zones will temporarily impact approximately 9 acres while

the access roads will permanently impact 67 acres of private lands outside the Roosevelt Reservation. CBP operations and TI construction within the 60-foot Roosevelt Reservation is consistent with the purpose of the Roosevelt Reservation, and any CBP activity within this area is outside the oversight or control of Federal land managers. Therefore, the majority of the lands along the U.S./Mexico border in New Mexico provide a border security function. The private lands within and near the Project corridor is ranch lands and probably will remain undeveloped in the foreseeable future.

3.3.1.2 Aesthetics

Aesthetic and visual resources within the Project corridor and region were discussed in the 2006 PEA (CBP 2006); those discussions are incorporated herein by reference. In summary, aesthetic and visual resources within the Project corridor include the characteristic features of the natural vegetation of the Chihuahuan Desert landscapes. These typically include the rugged topography of mountain ranges such as the Peloncillo, Whitewater, and Animas Mountains near the Project corridor. The rural agricultural communities, historic missions, and characteristic architecture contribute to the visual quality of the region.

3.3.2 Effects of the Project

3.3.2.1 Land Use

With the implementation of the Project, the land use within the Roosevelt Reservation will remain a Federal law enforcement zone. Privately-owned land is currently open and undeveloped. The land use in the Project corridor on private lands will temporarily change from open and undeveloped to staging area and passing zones, which will impact land use opportunities. However, open space is common within this area and the Project will not pose a major long-term change to the land use opportunities regionally. The staging areas and passing zones, which are needed to store and stockpile materials and safely transport materials, will temporarily affect approximately 9 acres. These areas will be rehabilitated upon completion of construction activities and the current land use restored; therefore, impacts associated with the staging areas are considered temporary and minimal. The access roads are existing roads; therefore, land use along these roads will not change. Negotiations are ongoing with private land owners, and they will be compensated at fair market value for any lands acquired or used by USBP for the Project.

3.3.2.2 Aesthetics

The construction of vehicle fence and roads will have adverse impacts on the appearance of the Project corridor. However, the majority of the Project occurs within the Roosevelt Reservation which currently has unimproved roads and barbed-wire fence that have already degraded the aesthetic value of the Project area. The presence of construction equipment and use of portable lighting will have a minimal impact on appearance during construction due to its temporary nature. The Project will not substantially degrade the existing visual character of the region; thus, impacts will be considered minimal.

Construction and operation of TI will increase border security in the Project corridor and may result in a change to illegal traffic patterns. However, changes to illegal alien (IA) traffic patterns result from a myriad of factors and, therefore, are considered unpredictable and beyond the scope of this ESP. Beneficial indirect impacts will be expected, as the vehicle fence will substantially reduce or eliminate IA vehicle traffic and associated trash and illegal roads in the Project corridor.

3.4 SOILS

3.4.1 Environmental Setting

General soil associations within the Project corridor are comprised of soils discussed in the 2006 PEA (CBP 2006) and are incorporated herein by reference. The study corridor encompasses two general soil associations including, Eba-Cloverdale-Eicks and Rough broken land-Rock Land-Lehmans (United States Department of Agriculture [USDA] 1973, CBP 2006).

Eba-Cloverdale-Eicks are deep, fine textured soils located in alluvial fans primarily found only in the in the Upper Animas valley (USDA 1973). This valley fill is typically composed of a short to mid mixed grasses and mesquite.

Rough broken land-Rock Land-Lehmans are shallow to very shallow and medium to very stony textured soils. These soils exist in very thin layers on bedrock and are located primarily on hills and mountains. The underlying bedrock is primarily igneous rock with some limestone and basalt (USDA 1980).

3.4.2 Environmental Consequences

The Project will have a direct, permanent impact on approximately 186 acres and temporary impacts to 9 acres of Eba-Cloverdale-Eicks and Rough broken land-Rock Land-Lehmans soils. The soils are common locally and regionally and have received some previous disturbance from the existing border and access roads; therefore, negligible impacts are expected.

Short-term impacts on soils, such as increased erosion, can be expected from the construction of roads; however, these impacts will be alleviated once construction is finished. Long-term effects on soils will result from the compaction of the soils from construction of the new construction road, erosion during storm events and loss of biological production. Pre- and post-construction BMPs will be developed and implemented to reduce or eliminate erosion and potential downstream sedimentation. Compaction techniques and erosion control measures, such as waterbars, gabions, straw bales, and the use of rip-rap or sediment traps, will be some of the BMPs implemented, as needed.

The temporary operation of portable lights within the construction footprint will have no effect on soils. The potential exists for petroleum, oil, and lubricants (POLs) to be spilled during refueling of the portable lights' generators, adversely impacting soils; however, drip pans will be provided for the power generators to capture any POLs

accidentally spilled during maintenance activities or leaks from the equipment; thus, the operation of the portable lights will have negligible impacts.

3.5 WATER RESOURCES

3.5.1 Environmental Setting

3.5.1.1 Groundwater

The region's groundwater conditions were discussed in detail in the 2006 PEA; therefore, this information is incorporated herein by reference (CBP 2006). The Project corridor is located in the Cloverdale and Playas Lake, New Mexico Hydrologic Basin (New Mexico Department of Environmental Quality 2008). The occurrence of groundwater in the region is highly varied, and is controlled to a large extent by the geologic province.

In general, the Playas Lake Basin is moderately to highly permeable with a water table located within 200 feet of the ground surface. Valleys within this basin form closed basins that are not connected to the Rio Grande through surface flows. Streams in this basin are ephemeral, and little if any xeroriparian vegetation develops along their banks. However, groundwater moves from these basins toward the Rio Grande through an interconnected system of aquifers which historically contributed to surface flows of the Rio Grande through upward seepage.

The majority of water withdrawals within the Playas Lake Basin near the Project corridor is in support of cattle grazing. Alkali and salinity hazards are generally quite variable in the Basin. Inflow to the Playas Lake Basin occurs through recharge, and mining and irrigation return flow, while estimated outflows are due to groundwater pumping from municipal, domestic, irrigation, and mining wells and to sub-flow out of the Basin. The irrigation return flow estimate is based on an irrigation efficiency of 55 percent. The total estimated outflow from documented sources is about 2,800 arcre-feet per year less than the estimated inflows (Southwest New Mexico Regional Water Plan 2005).

The Cloverdale Basin is a Sub-basin of the Animas Basin. The general groundwater flow in the Animas Basin is towards the northwestern corner; however, in the Cloverdale Basin the underflow is towards the north and south. The Cloverdale Basin is the smallest of the Animas Sub-basins.

The majority of water withdrawals within the Cloverdale Basin are agriculture related in support of cattle grazing. Withdrawal and recharge amounts were not readily available for just the Cloverdale Basin due to its remote nature; however, within the Animas Basin it is estimated that 38.5 million acre-feet are in storage in Hidalgo County with an estimated annual recharge rate of approximately 16,500 acre-feet per year (Southwest New Mexico Regional Water Plan 2005).

3.5.1.2 Waters of the U.S. and Surface Waters

The region's surface waters and WUS were discussed in detail in the 2006 PEA, and that information is incorporated herein by reference (CBP 2006). The Playas Lake and Cloverdale Basins have no surface waters listed as having impaired water quality.

Recent surveys within the Project corridor identified one potential wetland (totaling 0.3 acres) and 22 drainages bisecting the Project corridor that would be defined as WUS under Section 404 of the Clean Water Act (CWA). Due to the climate of the Project area, these surface drainage channels are dry much of the year and are considered ephemeral. The locations of the WUS, including the wetland within the Project corridor are identified in Figure 3-1.

3.5.1.3 Floodplains

A floodplain is the area adjacent to a river, creek, lake, stream, or other open waterway that is subject to flooding when there is a significant rain. Floodplains are further defined by the likelihood of a flood event. If an area is in the 100-year floodplain, there is a 1 in 100 (1 percent) chance in any given year that the area will flood. Federal Emergency Management Agency (FEMA) floodplain maps were reviewed to identify Project locations within mapped floodplains (FEMA 2008). At this time, no mapped floodplains exist within the Project corridor.

3.5.2 Effects of the Project

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the CWA, for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the CWA as the basis for evaluating potential environmental impacts and appropriate mitigations.

3.5.2.1 Groundwater

Water will be needed for road construction and improvement and possibly concrete anchors. Workable soil moisture content must be obtained in order to properly compact soils for road construction and to reduce fugitive dust emissions during construction. Water for construction and maintenance will be hauled into the Project corridor from existing wells located either near the Project corridor or from municipal supplies in other towns in Hidalgo, Grant, or Luna Counties.

It is assumed that for road construction approximately 0.5 acre-foot per mile of water will be needed for dust suppression and compaction. The potential water needed to install concrete anchors is also captured in the anticipated road construction volumes. Therefore, the total amount of water that will be required to facilitate construction of the Project will be approximately 22 acre-feet. This quantity will be consumed during the construction activities, which will be completed by December 2008. Although groundwater could be used from near the Project corridor, the area is adequately recharged via rains and irrigation return flow each year. As mentioned previously, the recharge potential of the Playas Lake Basin exceeds 2,800 acre-feet annually while the

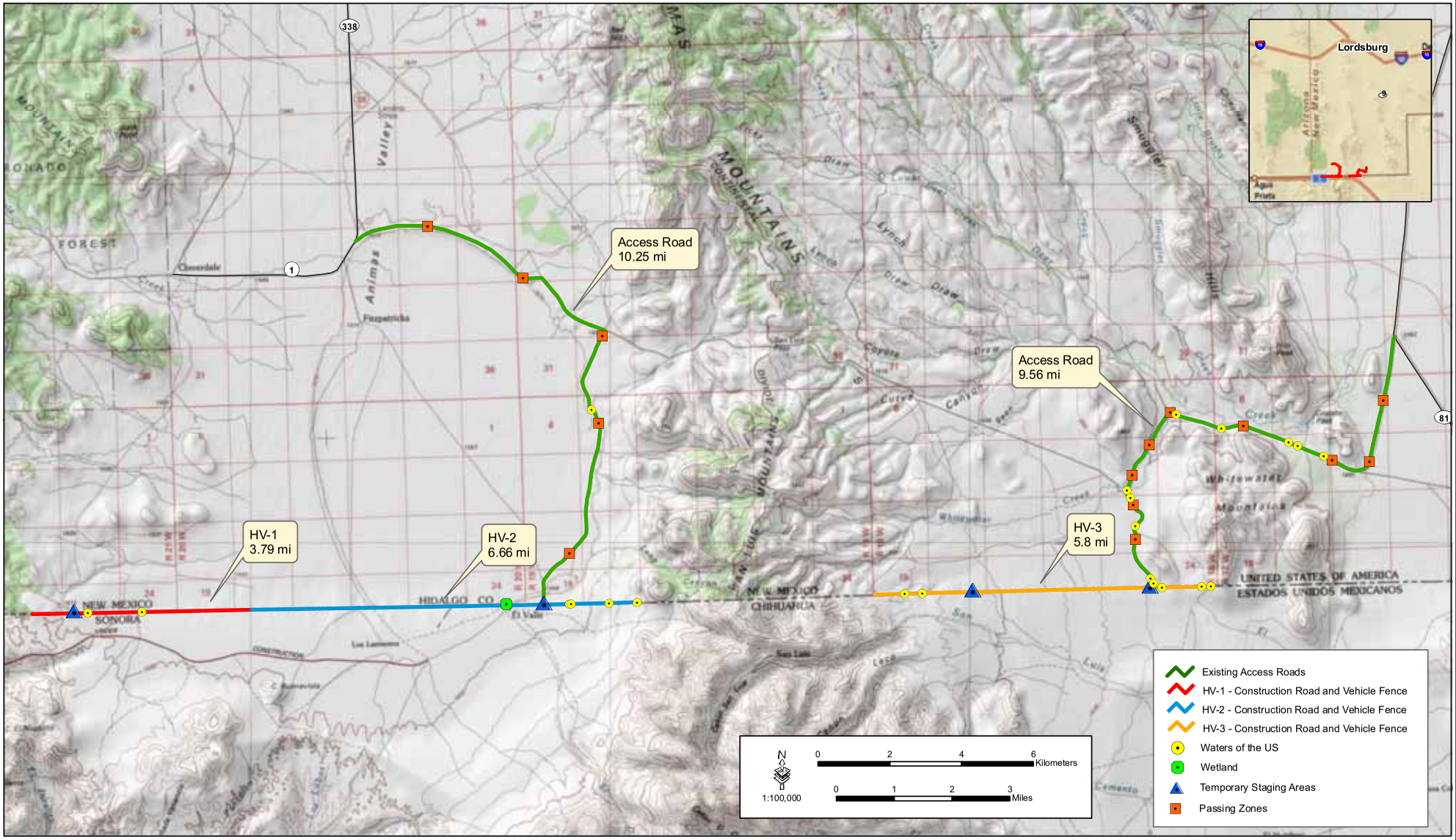

Figure 3-1: Waters of the US

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Animas Basin recharges at approximately 16,500 acre-feet per year. The amount of water needed for the Project (22 acre-feet) will be negligible when compared to the excess recharge in the basins. If water for the Project is purchased commercially from sources outside the Animas or Playas Lake Basin it will still be a negligible volume of water use compared to typical municipal uses. Therefore, water usage will not cause a net deficit in aquifer volume or lower the groundwater table; thus, a minor, short-term impact is expected.

3.5.2.2 Waters of the U.S. and Surface Waters

The Project will not have a permanent impact on any perennial or intermittent streams, as none are present within the Project corridor. As mentioned previously, 22 ephemeral streams meeting the definition of jurisdictional WUS were identified during field surveys within the Project corridor. The WUS will be traversed using some type of drainage structure, which could include concrete low water crossings, reinforced concrete pipes, or box culverts.

Existing drainage patterns of transboundary runoff will not be changed as a result of the Project. In addition, rip-rap, rock, or other energy dissipating materials will be placed downstream of the drainage structures to alleviate flow velocity, long-term erosion, and downstream sedimentation.

One jurisdictional wetland was also delineated within the Project corridor, and is located in the HV-1 TI segment along the U.S./Mexico border (see Figure 3-1). This wetland totals approximately 0.3 acres in size and will be filled as part of the Project. CBP will seek advice from USACE Albuquerque District regarding appropriate potential mitigation or compensation for the loss of 0.3 acres of wetland.

Existing drainage patterns of transboundary runoff will not be changed as a result of the Project. In addition, rip-rap, rock, or other energy dissipating materials will be placed downstream of the drainage structures to alleviate flow velocity, long-term erosion, and downstream sedimentation.

During construction activities, water quality within the ephemeral drains will be protected through the implementation of BMPs (e.g., silt fences). General BMPs routinely employed as part of CBP construction Projects were previously described in Section 1.5. Additionally, the vehicle fence (Normandy-style) has been designed to ensure that proper conveyance of floodwaters is achieved and that floodwaters are not backed up on either side of the border; and that routine maintenance activities will remove debris that collects on the vehicle fence during flood events.

No impacts are expected to surface waters or WUS from the placement of portable lights. To reduce the potential of surface water contamination, lights will not be placed in or adjacent to drainages. As a precaution, catch pans will be placed under the portable light generators to contain any accidental POL spills that may occur during refueling (at the staging areas) or while in operation.

During the construction period, erosion, downstream sedimentation, and accidental spills or leaks could have temporary and minor effects on surface water quality. However, with proper implementation of BMPs, as identified in the current SWPPP and SPCCP for the ongoing construction, these effects will be substantially reduced or eliminated.

The Project will not substantially alter existing drainage patterns, result in a permanent loss of wetlands or wetland function, or substantially affect water quality. Thus, the Project will have minimal impact on the region's water resources, and the effects will be mitigated, as appropriate.

3.5.2.3 Floodplains

No impacts to floodplains are anticipated as none are mapped near or within the Project corridor. Furthermore, the planned TI will not be damaged by flood events, nor will the planned TI increase the risk of flooding.

3.6 BIOLOGICAL RESOURCES

3.6.1 Environmental Setting

3.6.1.1 Vegetation

Existing vegetation communities adjacent to the Project corridor were described in the 2006 PEA; therefore, this information is incorporated herein by reference. In summary, two plant communities exist within the Project corridor: Chihuahuan Semi-desert Grassland and Madrean Evergreen Woodland.

The dominant species in the Chihuahuan Semi-desert Grassland plant community are tobosa (*Hilaria mutica*), black grama (*Bouteloua eriopoda*), red three-awn (*Aristida longistea*), and burrograss (*Scleropogon brevifolius*). Other common grasses include slender grama (*B. filiformis*), chino grama (*B. brevista*), spruce top grama (*B. chondrosioides*), bush muhly (*Muhlenbergia porteri*), three-awns (*Aristida divaricata*, *A. wrightii, A. purpurea*, and others), hairy tridens (*Tridens pilosus*) and fluffgrass (*T. pulchellus*). One of the most common leaf succulents is lechuguilla (*Agave lechuguilla*). Other stem and leaf succulents include the yuccas (*Yucca elata*, and others), sotols (*Dasylirion leiophyllum*, *D. wheeleri*), agaves (*Agave scabra, A. falcata, A. neomexicana, A. parryi, A. striata*, and others), and beargrasses (*Nolina microcarpa*, *N. erumpens, N. texana*). Common shrubs include: catclaw acacia (*Acacia greggii*), Mormon tea (*Ephedra trifurca*), mesquite (*Prosopsis juliflora*), whitethorn acacia (*Acacia neovernicosa*), and allthorn (*Koeberlinia spinosa*).

Within the lower elevations of the Madrean Evergreen Woodland plant community the alligator juniper (*Juniperus deppeana*), one-seed juniper (*Juniperus monosperma*), and Mexican pinyon (*Pinus cembroides*) are the dominant trees. Many of the widely distributed grasses, cacti, and leaf succulents of the grasslands as well as many of the shrubs can also be scattered or dominant within this plant community. In the higher elevations, the community is comprised of Mexican oak (*Quercus carmensis*), emory oak (*Quercus emoryi*), and gray oak (*Q.* grisea). Pines common in this community

include Apache pine (*Pinus engelmannii*), Chihuahua pine (*P. leiophylla*), Arizona pine (*P. ponderosa* var. *arizonica*), and Durango pine (*P. drangensis*). Herbaceous components include bunchgrasses such as the muhlys (*Muhlenbergia emersleyi*, *M. torreyi*, and *M. porteri*), woolspike (*Elyonurus barbiculmis*), cane bluestem (*Bothriochloa barbinodis*), and small ballmoss (*Tillandsia recurvata*).

The majority of the species discussed within the above plant communities were observed within the Project corridor during March and June 2008 biological surveys conducted by GSRC. The most common included tobosa, slender gramma, yucca, mormon tea, mesquite, one-seed juniper, alligator juniper, Mexican oak, Apache pine, bunchgrasses, and acacia.

3.6.1.2 Wildlife

Wildlife resources potentially found within the Project corridor were discussed in the 2006 PEA; this information is incorporated herein by reference (CBP 2006). Mammals typically associated with the Chihuahuan Desert range from large hoofed mammals to small ground-dwelling animals. Mammal species observed during recent surveys include the following species: black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), kit fox (*Vulpes velox*), collared peccary (*Tayassu tajacu*), mule deer, American bison (*Bison bison*), and American pronghorn (*Antilocapra americana*).

Many common species of amphibians and reptiles associated with western arid regions can be found in southern Hidalgo County. Examples of reptiles and amphibians observed during surveys include collared lizard (*Crotaphytus collaris*), greater earless lizard (*Cophosaurus texanus*), lesser earless lizard (*Holbrookia maculata*), side-blotched lizard (*Uta stansburiana*), and western diamondback rattlesnake (*Crotalus atrox*).

A total of 46 species of birds were identified during the survey and are listed in Table 3-3.

Table 3-3. Avian species identified during survey

Group	Common Name	Scientific Name
Dove	**Inca dove**	*Columbina inca*
	Mourning dove	*Zenaida maroura*
Falcon	**Prairie falcon**	*Falco mexicanus*
	American kestrel	*Falco sparverius*
Flycatcher	**Black phoebe**	*Sayornis nigricans*
	Say's phoebe	*Sayornis saya*
	Ash-throated flycatcher	*Myiarchus cinerascens*
Gnatcatcher	**Black-tailed gnatcatcher**	*Polioptila melanura*
	Blue-gray gnatcatcher	*Polioptila caerulea*
Quail	**Gambel's quail**	*Callipepla gambelii*
	Scaled quail	*Callipepla squamata*

Table 3-3, continued

Group	Common Name	Scientific Name
Raptor	Cooper's hawk	*Accipter cooperi*
	Golden eagle	*Aquila chrysaetos*
	Northern harrier	*Circus cyaneus*
	Zone-tailed hawk	*Buteo albonotatus*
	Red-tailed hawk	*Buteao jamaicenisis*
Raven	Common raven	*Corvus corvax*
	Chihuahan raven	*Corvus cryptoleucas*
Thrasher	Bendires thrasher	*Toxostoma bendirei*
	Curve-billed thrasher	*Toxostoma curvirostre*
	Crissal thrasher	*Toxostoma crissale*
Waterfowl	Northern shoveler	*Anas clypeta*
	Mallard	*Anas platyrhynchos*
	Bufflehead	*Bucephala albeola*
Woodpecker	Northern flicker	*Colaptes auratus*
	Ladder-backed flicker	*Picoides scalaris*
Various	Turkey vulture	*Cathartes aura*
	Greater roadrunner	*Geococcyx californianus*
	Burrowing owl	*Athena cunicularia*
	Cactus wren	*Campylorhyncus brunneicapillus*
	Loggershead strike	*Lanius ludoviscianus*
	White throated-swift	*Aeronautes saxatalis*
	Horned lark	*Eremophila alpestris*
	House finch	*Carpodacus mexicanus*
	Yellow rumped warbler	*Dendroica coronata*
	Verdin	*Auriparus flaviceps*

3.6.1.3 Protected Species

Federally protected species and designated critical habitat were discussed in the 2006 PEA, and those discussions are incorporated herein by reference (CBP 2006). USFWS currently lists 11 Federally endangered or threatened species and one candidate species within Hidalgo County (USFWS 2008). Table 3-4 lists these species and describes their potential to occur within in the Project corridor.

Table 3-4. Federally endangered or threatened species, Hidalgo County

Common/Scientific Name	Federal Status	Potential to occur within Project Area
Mexican gray wolf *Canis lupus baileyi*	Endangered*	No – No suitable habitat occurs within or near the Project corridor.
Northern aplomado falcon *Falco femoralis septentrionalis*	Endangered*	Yes – Grassland habitat exist within the Project corridor.
Jaguar *Panthera onca*	Endangered	Yes – Suitable habitat occurs within or near the Project corridor.
Southwestern willow flycatcher *Empidonax traillii extimus*	Endangered	No – No suitable habitat occurs within or near the Project corridor.

Table 3-4, continued

Common/Scientific Name	Federal Status	Potential to occur within Project Area
Lesser long-nosed Bat *Leptonycteris curasoae yerbabuenae*	Endangered	Yes – Suitable foraging habitat occurs within or near the Project corridor.
Mexican long-nosed bat *Leptonycteris nivalis*	Endangered	Yes – Suitable foraging habitat occurs within or near the Project corridor.
Spike dace *Meda fulgida*	Threatened	No – No suitable habitat occurs within or near the Project corridor.
Mexican spotted owl *Strix occidentalis lucida*	Threatened	No – No suitable habitat occurs within or near the Project corridor.
New Mexico ridge-nosed rattlesnake *Crotalus willardi obscurus*	Threatened	Yes – Suitable habitat occurs within or near the Project corridor.
Loach minnow *Tiaroga cobitis*	Threatened	No – No suitable habitat occurs within or near the Project corridor.
Chiricahua leopard frog *Rana chiricahuensis*	Threatened	Yes – Suitable habitat occurs within or near the Project corridor.
Yellow-billed cuckoo *Coccyzus americanus*	Candidate	No – No suitable habitat occurs within or near the Project corridor.

*non-essential experimental population

Of these 11 protected species, four currently have designated critical habitat within Hidalgo County; however, no critical habitat is located near the Project corridor. As can be seen from Table 3-4, CBP has made the determination that the northern aplomado falcon, Chiricahua leopard frog, Mexican long-nosed bat, lesser long-nosed bat, New Mexico ridge-nosed rattlesnake, and jaguar are the only Federally-listed species that have the potential to occur within or near the Project corridor. This determination is due to suitable habitat occurring near or within the Project corridor.

Of the species potentially impacted as a result of the Project only the Chiricahua leopard frog may be adversely affected. Additionally, the Project may affect, but is not likely to adversely affect the jaguar, Mexican long-nosed bat, lesser long-nosed bat, New Mexico ridge-nosed rattlesnake, and northern aplomado falcon.

In 2006, USFWS announced a final rule to reintroduce the northern aplomado falcon in historical habitats in southern New Mexico and Arizona (*Federal Register* Volume 71, No. 143). Under this ruling, the northern aplomado falcon is classified as a nonessential experimental population. This designation requires Federal land mangers to incorporate the following actions in a release under 10(j): (1) a geographic area is designated where all falcons within the area would be considered “experimental.” (2) Federal agencies would treat the release of birds as “proposed threatened” versus “endangered.” This requires the Federal agency to conference instead of consult, as required by Section 7 of the ESA; and (3) Federal agencies would conference with USFWS if the actions may adversely affect the aplomado falcon, but no authorization for incidental take would be required as with consultation.

On January 12, 1998 the USFWS announced the final rule for the Establishment of a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico. Therefore, the same designation and implications as discussed for the northern aplomado falcon also applies to the wolf.

The potential for New Mexico state protected species to occur within the Project corridor was discussed in the 2006 PEA and that discussion is incorporated herein by reference (CBP 2006). In summary, a total of 52 New Mexico threatened and endangered species are considered to inhabit Hidalgo County. A total of 12 species other than those on the Federal list have the potential to occur within the Project corridor. Table 3-5 depicts those species potentially occurring in the Project corridor. The complete list of state protected species found in Hidalgo County is provided in Appendix E of this ESP.

Table 3-5. State listed species with potential to occur in the Project corridor

Common Name	Scientific Name
Slevin's bunchgrass lizard	*Sceloporus slevini*
Sonoran desert toad	*Bufo alvarius*
Common black hawk	*Buteogallus anthracinus anthracinus*
Common ground dove	*Columbina passerina*
Broad billed hummingbird	*Cynanthus latirostris*
Costa's hummingbird	*Calypte costae*
Baird's sparrow	*Ammodramus bairdii*
Arizona grasshopper sparrow	*Ammodramus savannarum ammolegus*
Southern long-nosed bat	*Leptonycteris curasoae yerbabuenae*
Western yellow bat	*Lasiurus xanthinus*
White-sided jack rabbit	*Lepus callotis gaillardi*
Southern pocket gopher	*Thomomys umbrinus emotus*

Source: Biota Information System of New Mexico 2008.

3.6.2 Effects of the Project

3.6.2.1 Vegetation

The Project will permanently alter approximately 186 acres of Chiihuahuan Semi-desert Grassland and Madrean Evergreen Woodland vegetation. These plant communities are both locally and regionally common, and the permanent loss of 186 acres of vegetation will not adversely affect the population viability or fecundity of any floral species. Additionally, some of the impacts considered permanent will occur within current road footprints and are lacking vegetation. Therefore, impacts are expected to be negligible.

The use of staging areas and passing zones will temporarily impact 9 acres outside the Roosevelt Reservation for the duration of the construction activities. Upon completion of the construction activities these temporary staging areas will be rehabilitated using methods discussed in Section 1.5; therefore, impacts will be negligible.

The Project will also have temporary indirect impacts on vegetation. Fugitive dust emissions resulting from construction will affect photosynthesis and respiration of plants adjacent to the Project corridor. The magnitude of these effects will depend upon

several biotic and abiotic factors, including the speed and type of vehicles, climatic conditions, success of wetting measures during construction, and the general health and density of nearby vegetation.

The use of portable lighting could affect plant growth, but these effects will be temporary. As construction activities are completed within a particular area, the lights will be moved to the new construction area. It is anticipated that the temporary lights will not operate any longer than 4 weeks in one location, and no more than 12 light units will be used at once at each project location. Also, all lights will be removed from the Project corridor upon completion of construction activities, and the lights will be fitted with backlighting shields to minimize any stray light escaping to areas outside of the project area. Therefore, minor temporary impacts on vegetation from the use of portable lights are expected.

Construction and operation of TI will increase border security in the Project corridor and may result in a change to illegal traffic patterns. However, changes to IA traffic patterns result from a myriad of factors and, therefore, are considered unpredictable and beyond the scope of this ESP. Beneficial indirect impacts will be expected from the protection afforded to areas north of the Project corridor.

3.6.2.2 Wildlife

The Project will permanently impact approximately 186 acres of wildlife habitat. These impacts are considered negligible, as some of the Project components occur near and within previously disturbed areas (e.g., existing border and access roads), TI will be constructed near existing fence (barbed-wire cattle fence), and the wildlife habitat is locally and regionally common. The same impacts as discussed in Section 3.6.2.1 regarding the use of the temporary staging areas and passing zones are expected for this section.

The Project will not have direct impacts on fish and other aquatic species, because the construction activities will not take place in naturally flowing or standing water. Mitigation measures will be implemented for construction in or near washes, as stated in Section 1.5, to reduce potential impacts to riparian areas from erosion or sedimentation.

Mobile animals (e.g., birds) will escape to areas of similar habitat, while other slow or sedentary species of reptiles, amphibians, and small mammals could potentially be lost. As a result, direct minor adverse impacts on wildlife species in the vicinity of the Project corridor are expected. Although some animals may be lost, this Project will not result in any substantial reduction of the breeding opportunities for birds and other animals on a regional scale due to the suitable, similar habitat adjacent to the Project corridor.

Increased noise during construction activities could have short-term impacts on wildlife species (e.g., mule deer, red-tailed hawk, and desert cottontail). Physiological responses from noise range from minor responses, such as an increase in heart rate, to more damaging effects on metabolism and hormone balance. Long-term exposure to noise can cause excessive stimulation to the nervous system and chronic stress that is

harmful to the health of wildlife species and their reproductive fitness (Fletcher 1990). Behavioral responses vary 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). Since the highest period of movement for most wildlife species occurs during nighttime or low daylight hours, and construction activities will be conducted during daylight hours to the maximum extent practicable, short-term impacts of noise on wildlife species are expected to be minimal to moderate.

The operation of portable lights could potentially affect wildlife. Some species, such as insectivorous bats, may benefit from the concentration of insects that will be attracted to the lights. However, the portable lights will only illuminate a minimal amount of area (200 feet per light), will be fitted with backlighting shields, will not shine into riparian areas (because none are present in the Project corridor), and will be temporary. The adverse and beneficial effects of lighting on reptiles and amphibians are currently unknown (Rich and Longcore 2006). However, the temporary exposure to light as a result of the Project will not significantly alter circadian rhythms in mammals and birds. This artificial lighting may cause activity levels of diurnal animals to increase; however, any increase will not create major impacts (Rich and Longcore 2006). It is anticipated that the temporary lights will not operate any longer that 4 weeks in one location and no more than 12 lights will be used at once at each Project location. The generators used for these lights produce noise levels as high as 75 decibel – A weighted scale (dBA) within 20 feet of the generators, but attenuate to acceptable levels of 65 dBA at 75 feet (California Transportation Department 1998). Noise emissions from the generators will create minimal temporary impacts. No long term exposure from nighttime lighting sources post construction because all construction lighting will be removed upon completion of the Project. Therefore, impacts on wildlife are expected to be negligible and temporary a result of the operation of portable lights.

Construction and operation of TI will increase border security in the Project corridor and may result in a change to illegal traffic patterns. However, changes to IA traffic patterns result from a myriad of factors and, therefore, are considered unpredictable and beyond the scope of this ESP. Beneficial indirect impacts will be expected from the protection afforded to areas north of the Project corridor.

3.6.2.3 Protected Species

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the ESA, for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the ESA as the basis for evaluating potential environmental impacts and appropriate mitigations.

3.6.2.3.1 Chiricahua leopard frog

The disturbance of soils during construction and road improvement could result in erosion of soils. If substantial soil loss occurs, downstream aquatic habitats could be substantially impacted. Some of these potential impacts to aquatic habitats include: decreased water quality, alteration of stream substrates, and burial or disturbance of riparian/aquatic vegetation. Erosion features such as rills and gullies can substantially alter local hydrology and can result in stream bank erosion; therefore increasing sedimentation. During and following construction activities, the erosion of soils into aquatic habitats could affect water quality, cover eggs, and affect egg buoyancy.

Any spill of gasoline or petroleum product within 0.3 mile of potentially occupied habitats could affect groundwater and subsequently degrade water quality. The operation of heavy equipment and construction vehicles within 0.3 mile of potentially occupied habitat could result in the take of individuals either directly or indirectly through the introduction of disease (i.e., chytridiomycosis). Additionally, the increased ability for patrol activities to occur as a result of the improved access and construction roads will increase the potential adverse effects to the Chiricahua leopard frog.

The Project will remove approximately 0.3 acre of potential jurisdictional wetlands and result in a direct impact to suitable frog habitat. Because of the limited available suitable habitat for the frog, this reduction of habitat constitutes a moderate to major impact on the frog. Therefore, although the implementation of BMPs described in the BRP (see Appendix B) will help minimize or avoid additional adverse impacts to the frog and its suitable habitat to the greatest extent practicable, CBP has made the determination that the Project may adversely impact the frog.

Construction and operation of TI will increase border security in the Project corridor and may result in a change to illegal traffic patterns. However, changes to illegal alien (IA) traffic patterns result from a myriad of factors and, therefore, are considered unpredictable and beyond the scope of this ESP. Beneficial indirect impacts will be expected from the protection afforded to areas north of the Project corridor.

3.6.2.3.2 Jaguar

The Project may affect, but is not likely to adversely affect the jaguar. Human presence and construction related disturbance could result in temporary avoidance of the area and affect forage opportunities for this species. The loss of potential habitat will be minimal in comparison to the vast amounts of similar habitat in the region. However, the construction of roads could lead indirectly to the expansion of invasive species and increased accessibility to illegal hunting of both prey species and jaguar. Once completed, the TI could reduce the suitability of these areas as migratory corridors between southern breeding areas and northern foraging areas. However, this likelihood of this occurring is limited because fragmentation has occurred in the region in the form of the existing border road, cattle fence, and roads located south of the project corridor in Mexico (i.e., Mexico Highway 15). Additionally, some areas of potential movement corridors will be unaffected to the west and east of the Project corridor.

It is assumed that all portions of the Project corridor are located within the known habitat range of the jaguar. Therefore, approximately 186 acres of habitat will be permanently disturbed due to construction and maintenance of the border construction road, vehicle fence and access roads.

BMPs as discussed in the BRP (see Appendix B) will be implemented during the activities discussed in the Project and it is anticipated that there will be little to no effect on the regional abundance of the jaguar. Additionally, jaguar migration routes which are already bisected by nearby Mexico Highway 15 will not be interrupted as gaps between the rails or other structures of the vehicle fence will be wide enough to allow the jaguar to pass through the fence. Indirect impacts potentially occurring will be the same as those discussed in Section 3.6.2.3.1.

3.6.2.3.3 Mexican and Lesser Long-Nosed Bat

The Animas and Peloncillo Mountains are known to have active Mexican and lesser long-nosed bat roost. Therefore, because the locations of potential roosts are unknown in relation to the Project corridor, it is assumed that they could occur within 5 miles of construction activities. Construction activities occurring when roosts are occupied could disturb female bats and their young. However, the planned construction dates for TI segments HV-1 through HV-3 are on the fringes of the known occupancy season of the bats. The Mexican and lesser long-nosed bats occupy roost sites in areas near the Project corridor from April though early September. Construction activities are scheduled to begin in middle September to early October and conclude in December 2008 at which time bats are not occupying roost sites near the Project corridor. Therefore, negligible impacts as a result of potential roost disturbance are expected as a result of the Project.

Construction activities will result in the removal of bat foraging habitat. As many as 86 individual agaves will be removed as a result of the Project. The removal of vegetation will result in a loss of foraging habitat for these bat species. However, the loss of this minimal amount of foraging habitat will not constitute an adverse impact. Additionally, with the implementation of BMPs discussed in the BRP (see Appendix B), particularly those referring to the no net loss of agave, there will be no substantial loss of foraging habitat and the spread of invasive species which could potentially out-compete native vegetation utilized by the Mexican and lesser long-nosed bats will be minimized. Therefore, CBP has determined that the Project may affect, but is not likely to adversely affect the bats. Indirect impacts potentially occurring from the Project will be the same as those discussed in Section 3.6.2.3.1.

3.6.2.3.4 New Mexico Ridge-Nosed Rattlesnake

The ridge-nosed rattlesnake is thought to be limited in distribution to a small section of the Animas Mountains (i.e., Critical Habitat) located approximately 5 miles to the northeast of the Project's western access road. Vehicle strikes may occur along the access and construction roads; however, the likelihood of this happening is extremely low as impacted areas are relatively distant (i.e., 5 miles) from known areas of rattlesnake populations and habitat forage materials would be considered rare within the

Project footprint. Additionally, the implementation of BMPs discussed in the BRP (see Appendix B) will avoid and minimize potential impacts to New Mexico ridge-nosed rattlesnake and associated rattlesnake foraging habitat. Therefore, CBP has determined that the Project may affect but is not likely to adversely affect the New Mexico ridge-nosed rattlesnake. Indirect impacts potentially occurring from the Project will be the same as those discussed in Section 3.6.2.3.1.

3.6.2.3.5 Northern Aplomado Falcon

Impacts to the northern aplomado falcon could occur through the removal of potential foraging and nesting habitat. However, the aplomado falcon is a non-essential experimental population that was reintroduced to New Mexico and neither the falcon nor any signs of nesting activity were observed during recent biological surveys. Also, the preferred habitat of the falcon, grassland communities, is regionally and locally common. Therefore, although the Project corridor consists of suitable foraging habitat, impacts due to a permanent loss of 186 acres of foraging habitat are considered negligible. CBP has determined that the Project may affect but is not likely to adversely affect the northern aplomado falcon. Additionally, the temporary loss of 9 acres through the use of staging areas and passing zones is also considered to be a negligible impact. Indirect impacts potentially occurring will be the same as those discussed in Section 3.6.2.3.1.

3.6.2.3.6 State Listed Species

As seen in Table 3-4, state listed species could be impacted. Individuals could be harmed or lost during construction activities; however, the likelihood of the loss of any individuals is minimal because most of the species with the potential to occur are highly mobile species. The greatest impact is the removal of habitat through the construction of the TI. However, an abundance of similar habitat both locally and regionally exists and the removal of 186 acres is considered minimal. Additionally, the Project corridor has existing disturbance within the Project corridor (border and access roads). Therefore, any potential impacts to individuals or habitat as a result of the construction of the TI is expected to be minor. Indirect impacts potentially occurring will be the same as those discussed in Section 3.6.2.3.1

3.7 CULTURAL RESOURCES

3.7.1 Environmental Settings

3.7.1.1 Cultural Overview

A cultural resources overview of the Project region was given in the 2006 PEA; the descriptions are incorporated herein by reference (CBP 2006). In summary, the cultural setting of the region is generally divided into five different periods: Paleo-Indian, Archaic, Formative, Protohistoric and Historic. These periods are commonly subdivided into smaller temporal phases based on particular characteristics of the artifact assemblages encountered in archaeological regions within the southwest.

3.7.1.1.1 Previous Investigations

Compared with elsewhere in New Mexico, the southern Hidalgo County is a largely understudied area. Some academic and museum-based research in the area has investigated a possible connection between the ceramic producing cultures in the region with their contemporaries across the border in Mexico (DeAtley 1980; DeAtley and Findlow 1982; Findlow 1979; Findlow and Bolognese 1980; Kidder et al. 1949). Only two archaeological investigations occurred within 1 mile of the current Project corridor. In 1993 Human Systems Research (Sechrist 1994) investigated 198 miles of right of way associated with the international border fence and access roads for Joint Task Force Six. This survey found 92 sites and 523 isolated occurrences, and revisited seven previously recorded sites. These sites indicate human activity in the area spans several millennia from the Early Archaic to the Historic New Mexico Territorial and Statehood period. In 2004, Logan Simpson Design, Inc. (Breen 2004) surveyed a 2.4 acre parcel around the current Antelope Wells POE on CBP land. The survey discovered no cultural resources in the survey area.

3.7.1.1.2 Current Investigations

Cultural resource surveys were conducted in support of the Project.

3.7.2 Effects of the Project

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the NHPA, for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the NHPA as the basis for evaluating potential cultural effects and appropriate measures for avoidance or mitigation.

Any sites identified will be avoided or mitigated for appropriately in coordination with the land manager.

3.8 SOCIOECONOMICS

3.8.1 Environmental Setting

Section 3.13 of the 2006 PEA provided an in-depth description of socioeconomics of the ROI, which is considered Hidalgo County, New Mexico. The discussion from this document is incorporated herein by reference (CBP 2006). This section summarizes socioeconomic factors affecting the ROI.

According to the New Mexico Economic Development Department (2005), the 2005 population of Hidalgo County was estimated to be 5,875. It is projected to decrease to 5,799 by 2010 and to 5,515 by 2025. According to New Mexico Department of Labor's Labor Analysis Statistics and Economic Research (LASER), there are 287 potential registered employers in Hidalgo County (LASER 2007). The unemployment rate in 2005 was 4.9 percent (LASER 2008), below the state and National average of 5.2 and 5.1 percent (Bureau of Labor Statistics 2005a and b), respectively. Per Capita Personal Income (PCPI) is the personal income of the residents of a given area divided by the

resident population of that same area. Hidalgo County's 2005 PCPI was $20,589. The PCPI is well below the 2005 National and state averages, which were $34,471 and $27,889 respectively (Bureau of Economic Analysis 2005).

The percentage of people of all ages in poverty for Hidalgo County in 2005 was 26.9, greater than both the percentage of people in poverty for the state of New Mexico (18.4 percent) and the U.S. (13.3 percent, U.S. Census Bureau [USCB] 2005). Median household income was $25,039 for Hidalgo County in 2005, which was 46 and 33 percent less than the National and state household incomes, respectively (USCB 2005).

3.8.2 Effects of the Project

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under Executive Order (EO) 12898 and EO 13045 for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the EOs as the basis for evaluating potential environmental impacts and appropriate mitigations.

3.8.2.1 Socioeconomics

The Project will have a negligible impact on local or regional socioeconomics. The Project will not cause a permanent population increase or reduction in local income, or cause the vacancy rate for temporary housing to change. The Project will not displace residences or businesses; nor will it substantially affect the local employment or income status of the region. Any potential benefits to the region from purchase of materials, sales taxes, and additional employment will be temporary and will last only until December 2008, when the vehicle fence and roads are scheduled to be completed.

3.9 HAZARDOUS MATERIALS AND WASTE

3.9.1 Environmental Setting

EPA maintains a list of hazardous waste sites, particularly waste storage/treatment facilities or former industrial manufacturing sites in the U.S. EPA databases, Environmental and Compliance History Online and Envirofacts Data Warehouse, were reviewed for the locations of hazardous waste sites within or near the Project corridor (EPA 2007a, 2007b). According to both of these databases, no hazardous waste sites are located near or within the Project corridor. In addition, during biological surveys, no visual evidence of hazardous materials was discovered within the Project corridor.

3.9.2 Effects of the Project

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with CERCLA as the basis for evaluating potential environmental impacts and appropriate mitigations.

No hazardous materials or waste have been observed or are expected to occur within the Project corridor. Petroleum, oils, and lubricants will be stored properly and within designated containers, which will include primary and secondary containment measures. Clean-up materials (e.g., oil mops), in accordance with the Project's SPCCP, will also be maintained at the site to allow immediate action in case an accidental spill occurs. Drip pans will be provided for the power generators and other stationary equipment to capture any POL that is accidentally spilled during maintenance activities or leaks from the equipment.

Sanitary facilities will be provided during construction activities, and waste products will be collected and disposed of by licensed contractors. No gray water will be discharged to the ground. Disposal contractors will use only established roads to transport equipment and supplies; all waste will be disposed of in strict compliance in accordance with the contractor's permits. Because the proper permits will be obtained by the licensed contractor tasked to handle any unregulated solid waste, and because all of the unregulated solid waste will be handled in the proper manner, no hazards to the public are expected through the transport, use, or disposal of unregulated solid waste.

SECTION 4.0
BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

4.0 BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

It is CBP's policy to reduce impacts through the sequence of avoidance, minimization, mitigation, and finally, compensation. Mitigation efforts vary and include activities such as restoration of habitat in other areas and implementation of appropriate BMPs. CBP coordinates its environmental design measures with the appropriate Federal and state resource agencies, as appropriate. Both general BMPs and species-specific BMPs have been developed during the preparation of this ESP.

This section describes those measures that may be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated by CBP as standard operating procedures on past projects. Appendix B contains the BRP, which includes the full list of environmental design measures and BMPs that will be incorporated as part of the Project. Below is a summary of BMPs for each resource category that will be potentially affected. The mitigation measures will be coordinated with the appropriate agencies and land managers or administrators, as appropriate. Table 4-1 provides an overview of BMPs and mitigation measures by specific resource areas.

Table 4-1. Specific Resource Area BMPs and Mitigation

Resource Area	Best Management Practices/Mitigation
Air Quality	Dust Control Plan. Fire Prevention and Suppression Plan. Maintain equipment according to specifications.
Land Use and Aesthetics	No mitigation necessary.
Soils	Dust Control Plan.
Hydrology and Groundwater	SPCCP and CM&R plans.
Surface Waters and Waters of the United States	Mitigation for 0.3 acres of wetlands as appropriate, SWPPP.
Vegetation Resources	Fire Suppression and Prevention Plan. Biological monitor on site during construction to ensure all BMPs and mitigation plans are followed.
Wildlife and Aquatic Resources	No mitigation necessary.
Threatened and Endangered Species	Disease prevention protocols will be employed if the Project is in areas known or likely to harbor chytridiomycosis.
Cultural Resources	Avoidance of sites and mitigation of impacts, as necessary, will be conducted in coordination with the land manager.

4.1 GENERAL CONSTRUCTION ACTIVITIES

BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted industry guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although a major spill is unlikely to occur, any spill of 5 gallons or more will be contained immediately within an earthen dike, and an absorbent (e.g., granular, pillow, sock, etc.) will be applied to contain the spill. Furthermore, a spill of any regulated substance in a reportable quantity will be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities regulated substances will be included as part of a project-specific SPCCP. An SPCCP will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan.

All equipment maintenance, laydown, and dispensing of fuel, oil, or any other such activities, will occur in staging areas identified for use in this ESP. The designated staging areas will be located in such a manner as to prevent any runoff from entering WUS, including wetlands. All used oil and solvents will be recycled if possible. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed in manners consistent with EPA standards.

Solid waste receptacles will be maintained at staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Waste materials and other discarded materials contained in these receptacles will be removed from the site as quickly as possible. Solid waste will be collected and disposed of properly.

Once activities in any given construction segment of the Project corridor is completed, active measures will be implemented to rehabilitate the staging areas. CBP will coordinate with the appropriate land managers to determine the most suitable and cost-effective measures for successful rehabilitation.

For successful rehabilitation, all or some of the following measures may be conducted on the part of CBP:

- Site preparation through ripping and disking to loosen compacted soils.
- Hydromulch with native grasses and forbs in order to control soil erosion and ensure adequate re-vegetation.
- Planting of native shrubs as needed.
- Temporary irrigation (i.e., truck watering) for seedlings.

- Periodic monitoring to determine if additional actions are necessary to successfully rehabilitate disturbed areas.

4.2 AIR QUALITY

Mitigation measures will be incorporated to ensure that particulate matter less than 10 microns in size (PM-10) emission levels remain minimal. Measures will include dust suppression methods to minimize airborne particulate matter created during construction activities. Standard construction BMPs, such as routine watering of the construction site and access roads, will be used to control fugitive dust during the construction phases of the Project. Additionally, all construction equipment and vehicles will need to be kept in good operating condition to minimize exhaust emissions.

4.3 SOILS

Proper site-specific BMPs are designed and utilized to reduce the impact of non-point source pollution during construction activities. BMPs include such things as buffers around washes to reduce the risk of siltation, installation of waterbars to slow the flow of water down hill, and placement of culverts, low-water crossings, or bridges where washes need to be traversed. These BMPs will greatly reduce the amount of soil lost to runoff during heavy rain events and ensure the integrity of the construction site. Soil erosion BMPs can also beneficially impact air quality by reducing the amount of fugitive dust.

Areas with highly erodible soils will be given special consideration to ensure incorporation of various and effective compaction techniques, aggregate materials, wetting compounds, and rehabilitation to reduce potential soil erosion. Erosion control measures such as waterbars, gabions, straw bales, and re-vegetation will be implemented during and after construction activities. Re-vegetation efforts will be implemented to ensure long-term recovery of the area and to prevent significant soil erosion problems.

4.4 WATER RESOURCES

Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the CWA, for the TI segments addressed in this ESP, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP supports this objective and has applied the appropriate standards and guidelines associated with the CWA as the basis for evaluating potential environmental impacts and appropriate mitigations.

CBP will require its contractor(s) to prepare and implement a SWPPP to avoid or reduce erosion and sedimentation outside the construction footprint. Coordination with the Regulatory Functions Branch of USACE, Albuquerque District will continue in order to avoid or reduce construction-related impacts to washes and arroyos that are potentially jurisdictional WUS. Compensatory mitigation will be implemented, as appropriate.

All engineering designs and subsequent hydrology reports will be provided to USIBWC prior to start of construction activities for recommendations of measures to avoid an increase, concentration, or relocation of overland surface flows into either the U.S. or Mexico. Furthermore, CBP will routinely check and maintain drainage structures, including low water crossings, and vehicle fence installed within drainages. Such activities may include, but are not limited to, removal of debris that would impede proper conveyance, repair/maintenance of erosional features, installation of energy dissipation measures, and re-vegetation of temporarily disturbed areas.

4.5 BIOLOGICAL RESOURCES

Construction equipment will be cleaned using a high-pressure water system prior to entering and departing the Project corridor to minimize the spread and establishment of non-native invasive plant species. Soil disturbances in temporary impact areas will be rehabilitated. Rehabilitation includes re-vegetation or the distribution of organic and geological materials over the disturbed area to reduce erosion while allowing the area to naturally revegetate. Rehabilitation methods will be outlined in a rehabilitation plan. At a minimum, the rehabilitation plan will include: the plant species to be used, a planting schedule, measures to control non-native species, specific success criteria, and the party responsible for maintaining and meeting the success criteria. Seeds or plants native to Hidalgo County will be used to the extent practicable.

Disturbed and restored areas will be monitored for the spread and eventual eradication of non-native invasive plant species as part of periodic maintenance activities as appropriate.

A qualified biologist (i.e., professional biologist with education and training in wildlife biology or ecology and experience with regional ecology) will monitor construction operations to ensure adherence with the BMPs and provide advice to the construction contractor as needed.

Disease prevention protocols will be employed if the Project is in areas known or likely to harbor chytridiomycosis. CBP is coordinating with land owners and USFWS to identify these areas. In such cases, if construction vehicle/equipment use will occur in more than one Chiricahua leopard frog suitable habitat, that equipment will be cleaned and dried or disinfected before it moves to another location with suitable habitat.

4.6 CULTURAL RESOURCES

Avoidance of sites and mitigation of impacts as appropriate will be conducted in coordination with the land manager.

SECTION 5.0
RELATED PROJECTS AND POTENTIAL EFFECTS

5.0 RELATED PROJECTS AND POTENTIAL EFFECTS

This section of the ESP addresses the potential cumulative impacts associated with the implementation of the Project and other projects/programs that are planned for the region.

USBP has been conducting law enforcement actions along the border since its inception in 1924, and has continually 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 affected thousands of acres, with synergistic and cumulative impacts to soil, wildlife habitats, water quality, and noise. Beneficial effects have resulted from the construction and use of these roads and fences, including, but not limited to: increased employment and income for border regions and surrounding communities; protection and enhancement of sensitive resources north of the border; reduction in crime within urban areas near the border; increased land value in areas where border security has increased; and increased knowledge of the biological communities and pre-history of the region through numerous biological and cultural resources surveys and studies.

With continued funding and implementation of CBP's environmental conservation measures, including use of biological and archaeological monitors, and restoration activities, adverse impacts of future and ongoing projects will be prevented or minimized. However, recent, ongoing, and reasonably foreseeable proposed projects will result in cumulative impacts. General descriptions of these types of activities are discussed in the following paragraphs.

Cumulative Fencing along Southwest Border. There are currently 62 miles of landing mat pedestrian fence at various locations along the U.S./Mexico International border (Congressional Research Service [CRS] 2006); approximately 30 miles of single, double, and triple pedestrian fence in San Diego, California and Yuma, Arizona; 70 miles of new primary pedestrian fence at various locations along the U.S./Mexico border; vehicle fence along much of the Deming Station's AO, vehicle fence in Arizona along the Organ Pipe Cactus National Monument; and pedestrian fences at POE facilities throughout the southern border. In addition, 225 miles of fence are currently being planned and built for Texas, New Mexico, Arizona, and California.

Past Actions. Past actions are those within the cumulative effects analysis areas that have occurred prior to the development of this ESP. The effects of these past actions are generally described throughout Section 3 of this ESP. For example, extensive cattle grazing and farming use in the area has contributed to the existing environmental conditions of the area.

Present Actions. Present actions include current or funded construction projects; CBP or other agency actions in close proximity to the planned vehicle fence locations; and current resource management programs and land use activities within the cumulative effects analysis areas. Ongoing actions considered in the cumulative effects analysis include the following:

Construction of Primary Fence. The FY 2007 DHS Appropriations Act provided $1.2 billion for the installation of fencing, infrastructure, and technology along the border (CRS 2006). By the December 31, 2008 CBP will have constructed up to 225 miles of primary fence and up to 300 miles of vehicle fence in all southwest border sectors except Laredo.

Reasonably Foreseeable Future Actions. Reasonably foreseeable future actions consist of activities that have been approved and can be evaluated with respect to their effects. The following activities are reasonably foreseeable future actions:

CBP's Secure Border Initiative (SBI*net*) The Secure Border Initiative (SBI) is a comprehensive multi-year plan established by the DHS to secure America's borders and reduce illegal migration. SBI*net* is responsible for the development, installation and integration of technology solutions, and SBI TI develops and installs physical components designed to secure the border consisting of the following major components: pedestrian fence, vehicle fence, roads, lights and vegetation control. SBI*net* will improve deterrence, detection, and apprehension of illegal aliens into the U.S. When fully implemented, SBI*net* and SBI TI will improve ability of CBP personnel to rapidly and effectively respond to illegal cross border activity and help DHS and CBP to manage, control, and secure the Nation's borders.

SBI*net* program is currently in the very early planning stages of identifying potential locations for surveillance and communication towers within New Mexico. These towers typically require a 100-foot x 100-foot area and are usually located near an established, but sometimes unimproved road. The towers are generally less than 200 feet tall and can be powered by batteries, solar panels, wind turbines, natural gas generators, or from existing electrical grids. The towers would be used as a force multiplier to assist USBP in the detection of illegal cross-border activity. Currently, there are 35 radar/camera towers and 20 communication tower sites being investigated within 25 miles of the U.S./Mexico border in New Mexico. For a Project of this size, it would be expected that no more than 50 acres, including construction/improvement of access roads would be impacted. Typical of all CBP Projects, sites are surveyed for the presence of sensitive resources and, where practicable, such resources are avoided.

CBP also intends to construct approximately 48 miles of vehicle fence and associated construction roads along the U.S./Mexico border from Border Monuments 62 to 40 in southeast New Mexico. The construction of these TI components would encompass the entire 60 foot Roosevelt Reservation and account for 349 acres of disturbance. In order to construct the TI along the border, access roads would also have to be improved. Approximately 84 miles of access roads would be improved. These roads currently

range from two-track trails to 28-foot wide all-weather roads. Therefore, the amount of work to be completed to improve these roads is not known at this time but will be established via engineering and analyzed in an appropriate environmental document.

A list of other recently completed or reasonable foreseeable CBP Projects within the region surrounding the Lordsburg Station's AO is presented in Table 5-1. In addition, CBP might be required to implement other activities and operations that are currently not foreseen or mentioned in this document. These actions could be in response to National emergencies or security events like the terrorist attacks on September 11, 2001, or to changes in the mode of operations of the potential IAs.

Table 5-1. Recently Completed or Reasonably Foreseeable CBP Projects in and near the Lordsburg Station's AO

Project	Approximate Distance from Project Corridor (miles)	Approximate Acres Permanently Impacted
New construction of the Lordsburg Station, Hidalgo County, New Mexico	71	25
USBP, Forward Operating Base, Luna County, New Mexico	75	10
USBP, Temporary Camp Detail, Coronado National Forest	40	1
TI within the Deming Station's AO (construction roads, access roads, vehicle fence, primary fences, and lighting)	30	382
VF 300 HV-4 Project	1	42
	Total	**460 acres**

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

Due to the remote nature of Hidalgo County and unpopulated areas of southern New Mexico, there are very few ongoing or future Projects other than those conducted by CBP, BLM, NMDOT, and private ranching activities.

In addition, projects are currently being planned by other Federal entities which could affect areas in use by USBP. CBP/USBP maintain close coordination with these agencies so that CBP/USBP activities do not conflict with other agencies' policies or management plans to the extent practicable. CBP typically coordinates with applicable state and Federal agencies prior to performing any construction activities so that USBP operations do not substantially impact the mission of other agencies. The following paragraphs list projects that other Federal and state agencies are conducting or have completed within the region.

Many habitat improvement projects are slated over the next 5 years for bighorn sheep (*Ovis canadensis nelsoni*) and other species in the Bootheel area of New Mexico; these are cooperatively planned by New Mexico Department of Game and Fish (NMDGF), the Sikes Act Habitat Stamp Program, Natural Resources Conservation Service (NRCS), Environmental Quality Incentive Program, and BLM challenge cost share program (Lister 2006). BLM has communicated with USBP on the location of water development Projects in the Hatchets and Peloncillo mountains. The U.S. Geological Survey, BLM, and NMDGF are conducting nectar feeding bat surveys in the Hatchets, Animas, and Peloncillo mountains (Lister 2006). Additional BLM Las Cruces District Office projects were described and listed in the 2006 PEA and are incorporated herein by reference. In summary, BLM proposes the following:

- grazing permit issuances, transfers, and renewals;
- free use mineral material permits;
- transportation and utility ROW easements;
- oil and gas ROW easements;
- mineral exploration permits;
- resource management plans;
- scenic trails; and
- competitive land sales.

A summary of the anticipated cumulative impacts of the Project (i.e., construction of 36 miles of vehicle fence and associated roads in Hidalgo County) in conjunction with other projects in the area are presented in the following sections. Discussions are presented for each of the resources described previously.

5.1 AIR QUALITY

The emissions generated during and after the construction of the vehicle fence will be short-term and minor. Although maintenance of the fence and construction road will result in cumulative impacts on the region's airshed, these impacts will be considered negligible, even when combined with the other proposed developments in the border region. BMPs designed to reduce fugitive dust have been and will continue to be standard operating procedure for CBP construction projects. Deterrence of and improved response time to cross border violators due to the construction of the fence and road has reduced the need for off-road enforcement actions by USBP agents.

5.2 LAND USE AND AESTHETICS

The Project described herein will occur within the Roosevelt Reservation, which was set aside specifically for border control actions. This action, therefore, is consistent with the authorized land use and, when considered with other potential alterations of land use, will have negligible cumulative impacts. Recent activities that have most affected land use near the TI are the farming and grazing operations on BLM and private lands.

The construction of TI from Border Monuments 69 to 40 will contribute to a degradation of visual resources; however, these areas currently have an existing border road and cattle fence located within or nearby most of the Project corridor. Additionally, areas north and west of the border within the construction corridors will be expected to experience beneficial, indirect cumulative impacts through the reduction of trash, soil erosion, and creation of roads by illegal vehicle traffic. Therefore, moderate cumulative impacts to visual resources are expected from implementing the Project, when considered with existing and proposed developments in the surrounding areas.

5.3 SOILS

The Project and other USBP actions will not reduce prime farmland soils or agricultural production. Pre- and post-construction SWPPP measures for this and other Planned and Proposed Actions will be implemented to control erosion. The loss of biological production from 846 acres of regionally abundant soils as a result of the Project, when combined with past and proposed projects in the region, will result in moderate cumulative impacts to soils, primarily through the loss of biological production.

5.4 WATER RESOURCES

As a result of the Project when combined with other USBP Projects, increased temporary erosion during construction will occur; however, increased sediment and turbidity will have minimal cumulative impacts on water quality. Pre- and post-construction SWPPP measures for this and other Planned and Proposed Actions will be implemented to control erosion. Limited and short-term withdrawal from the regional groundwater basins will not affect long-term water supplies or groundwater quality. The volume of water withdrawn will not affect the public drinking water supplies, but could indirectly contribute to aquifer contamination from surface runoff. The indirect effects of altered surface drainage and potential consequent erosion will have minimal beneficial and adverse cumulative impacts to surface water quality.

5.5 BIOLOGICAL RESOURCES

Equipment used during the improvement of roads will cause the degradation or loss of up to 846 acres of natural vegetation (CBP 2006). The TI currently planned as well as future TI will permanently impact up to 846 acres of vegetation communities consisting of Chihuahuan desertscrub, desert grasslands and prairies, and woodland communities. These impacts are considered moderate to major cumulative impacts; however, BMPs will be developed, which include the restoration of temporarily impacted areas to offset these potential impacts. Additionally, the reduction of illegal traffic north of the planned and proposed TI will have beneficial cumulative impacts on vegetation communities in the region.

The planned and proposed TI will have negligible cumulative impacts on fish or other aquatic species because the construction activities will not take place in flowing or standing water. Construction in or near drainage crossings will use BMPs and follow

the SWPPP to reduce potential impacts downstream. Adverse cumulative impacts will occur to wildlife species through the permanent reduction of 846 acres of habitat. However, due to the presence of similar habitat adjacent to the study corridor (over 1.5 million acres), these impacts are considered minor to moderate (PEA 2006). Additionally, because vehicle fence is planned for 96 percent of the ROI rather than primary pedestrian fence, negligible cumulative impacts will occur regarding opportunities for transboundary migration.

CBP has maintained close coordination with USFWS and NMDGF regarding impacts to special status species, and USFWS has provided valuable guidance to CBP regarding these species. Through the use of BMPs developed in coordination with USFWS, the potential impacts as a result of the Project, as well as other past, present, and future actions, no major cumulative impacts on protected species will occur.

5.6 CULTURAL RESOURCES

Cultural resource surveys were completed and sites will be avoided or mitigated as appropriate in coordination with the land manager. Beneficial cumulative effects will occur from the protection afforded to previously discovered and any undiscovered cultural resources within the border lands in the vicinity of the planned and proposed TI components.

5.7 SOCIOECONOMICS

The planned and proposed TI in the ROI will have negligible cumulative impacts on the local employment or income, will not induce a permanent in-migration of people nor will there be additional permanent employees. Therefore, there will be no cumulative increase in demand for housing. However, TI will benefit socioeconomics of the ROI by reducing the costs associated with illegal activity through the USBP's increased deterrence and apprehension capabilities.

5.8 HAZARDOUS MATERIALS

Only minor increases in the use of hazardous substances (e.g., POL) will occur as a result of the construction and maintenance of the vehicle fence. No health or safety risks will be created by the Project. When combined with other ongoing and proposed Projects in the region, the Project will have a negligible cumulative impact.

SECTION 6.0
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6.0 REFERENCES

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APPENDIX A
DHS April 2008 Border Waiver

FOR FURTHER INFORMATION CONTACT: Ken Hunt, Executive Director, 245 Murray Lane, Mail Stop 0550, Washington, DC 20528, 703–235–0780 and 703–235–0442, *privacycommittee@dhs.gov*.

Purpose and Objective: Under the authority of 6 U.S.C. section 451, this charter establishes the Data Privacy and Integrity Advisory Committee, which shall operate in accordance with the provisions of the Federal Advisory Committee Act (FACA) (5 U.S.C. App).

The Committee will provide advice at the request of the Secretary of DHS and the Chief Privacy Officer of DHS on programmatic, policy, operational, administrative, and technological issues within the DHS that relate to personally identifiable information (PII), as well as data integrity and other privacy-related matters.

Duration: The committee's charter is effective March 25, 2008, and expires March 25, 2010.

Responsible DHS Officials: Hugo Teufel III, Chief Privacy Officer and Ken Hunt, Executive Director, 245 Murray Drive, Mail Stop 0550, Washington, DC 20528, *privacycommittee@dhs.gov*, 703–235–0780.

Dated: April 1, 2008.

Hugo Teufel III,

Chief Privacy Officer.

[FR Doc. E8–7277 Filed 4–7–08; 8:45 am]

BILLING CODE 4410–10–P

DEPARTMENT OF HOMELAND SECURITY

Office of the Secretary

Determination Pursuant to Section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as Amended

AGENCY: Office of the Secretary, Department of Homeland Security.

ACTION: Notice of determination; correction.

SUMMARY: The Secretary of Homeland Security has determined, pursuant to law, that it is necessary to waive certain laws, regulations and other legal requirements in order to ensure the expeditious construction of barriers and roads in the vicinity of the international land border of the United States. The notice of determination was published in the **Federal Register** on April 3, 2008. Due to a publication error, the Project Area description was inadvertently omitted from the April 3 publication. For clarification purposes, this document is a republication of the April 3 document including the omitted Project Area description.

DATES: This Notice is effective on April 8, 2008.

Determination and Waiver

The Department of Homeland Security has a mandate to achieve and maintain operational control of the borders of the United States. Public Law 109–367, 2, 120 Stat. 2638, 8 U.S.C. 1701 note. Congress has provided the Secretary of Homeland Security with a number of authorities necessary to accomplish this mandate. One of these authorities is found at section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (''IIRIRA''). Public Law 104–208, Div. C, 110 Stat. 3009–546, 3009–554 (Sept. 30, 1996) (8 U.S.C 1103 note), as amended by the REAL ID Act of 2005, Public Law 109–13, Div. B, 119 Stat. 231, 302, 306 (May 11, 2005) (8 U.S.C. 1103 note), as amended by the Secure Fence Act of 2006, Public Law 109–367, 3, 120 Stat. 2638 (Oct. 26, 2006) (8 U.S.C. 1103 note), as amended by the Department of Homeland Security Appropriations Act, 2008, Public Law 110–161, Div. E, Title V, 564, 121 Stat. 2090 (Dec. 26, 2007). In Section 102(a) of the IIRIRA, Congress provided that the Secretary of Homeland Security shall take such actions as may be necessary to install additional physical barriers and roads (including the removal of obstacles to detection of illegal entrants) in the vicinity of the United States border to deter illegal crossings in areas of high illegal entry into the United States. In Section 102(b) of the IIRIRA, Congress has called for the installation of fencing, barriers, roads, lighting, cameras, and sensors on not less than 700 miles of the southwest border, including priority miles of fencing that must be completed by December of 2008. Finally, in section 102(c) of the IIRIRA, Congress granted to me the authority to waive all legal requirements that I, in my sole discretion, determine necessary to ensure the expeditious construction of barriers and roads authorized by section 102 of the IIRIRA.

I determine that the following area of Hidalgo County, Texas, in the vicinity of the United States border, hereinafter the Project Area, is an area of high illegal entry:

- Starting approximately at the intersection of Military Road and an un-named road (i.e. beginning at the western end of the International Boundary Waters Commission (IBWC) levee in Hidalgo County) and runs east in proximity to the IBWC levee for approximately 4.5 miles.
- Starting approximately at the intersection of Levee Road and 5494 Wing Road and runs east in proximity to the IBWC levee for approximately 1.8 miles.
- Starting approximately 0.2 mile north from the intersection of S. Depot Road and 23rd Street and runs south in proximity to the IBWC levee to the Hidalgo POE and then east in proximity to the new proposed IBWC levee and the existing IBWC levee to approximately South 15th Street for a total length of approximately 4.0 miles.
- Starting adjacent to Levee Road and approximately 0.1 miles east of the intersection of Levee Road and Valley View Road and runs east in proximity to the IBWC levee for approximately 1.0 mile then crosses the Irrigation District Hidalgo County #1 Canal and will tie into the future New Donna POE fence.
- Starting approximately 0.1 mile east of the intersection of County Road 556 and County Road 1554 and runs east in proximity to the IBWC levee for approximately 3.4 miles.
- Starting approximately 0.1 mile east of the Bensten Groves road and runs east in proximity to the IBWC levee to the Progresso POE for approximately 3.4 miles.
- Starting approximately at the Progresso POE and runs east in proximity to the IBWC levee for approximately 2.5 miles.

In order to deter illegal crossings in the Project Area, there is presently a need to construct fixed and mobile barriers and roads in conjunction with improvements to an existing levee system in the vicinity of the border of the United States as a joint effort with Hidalgo County, Texas. In order to ensure the expeditious construction of the barriers and roads that Congress prescribed in the IIRIRA in the Project Area, which is an area of high illegal entry into the United States, I have determined that it is necessary that I exercise the authority that is vested in me by section 102(c) of the IIRIRA as amended. Accordingly, I hereby waive in their entirety, with respect to the construction of roads and fixed and mobile barriers (including, but not limited to, accessing the project area, creating and using staging areas, the conduct of earthwork, excavation, fill, and site preparation, and installation and upkeep of fences, roads, supporting elements, drainage, erosion controls, safety features, surveillance, communication, and detection equipment of all types, radar and radio towers, and lighting) in the Project Area, all federal, state, or other laws, regulations and legal requirements of, deriving from, or related to the subject of, the following laws, as amended: The National Environmental Policy Act (Pub. L. 91–190, 83 Stat. 852 (Jan. 1,

1970) (42 U.S.C. 4321 *et seq.*)), the Endangered Species Act (Pub. L. 93–205, 87 Stat. 884) (Dec. 28, 1973) (16 U.S.C. 1531 *et seq.*)), the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act) (33 U.S.C. 1251 *et seq.*), the National Historic Preservation Act (Pub. L. 89–665, 80 Stat. 915 (Oct. 15, 1966) (16 U.S.C. 470 *et seq.*)), the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), the Clean Air Act (42 U.S.C. 7401 *et seq.*), the Archeological Resources Protection Act (Pub. L. 96–95, 16 U.S.C. 470aa *et seq.*), the Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), the Noise Control Act (42 U.S.C. 4901 *et seq.*), the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*), the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 *et seq.*), the Archaeological and Historic Preservation Act (Pub. L. 86–523, 16 U.S.C. 469 *et seq.*), the Antiquities Act (16 U.S.C. 431 *et seq.*), the Historic Sites, Buildings, and Antiquities Act (16 U.S.C. 461 *et seq.*), the Farmland Protection Policy Act (7 U.S.C. 4201 *et seq.*), the Coastal Zone Management Act (Pub. L. 92–583, 16 U.S.C. 1451 *et seq.*), the Federal Land Policy and Management Act (Pub L. 94–579, 43 U.S.C. 1701 *et seq.*), the National Wildlife Refuge System Administration Act (Pub. L. 89–669, 16 U.S.C. 668dd-668ee), the Fish and Wildlife Act of 1956 (Pub. L. 84–1024, 16 U.S.C. 742a, *et seq.*), the Fish and Wildlife Coordination Act (Pub. L. 73–121, 16 U.S.C. 661 *et seq.*), the Administrative Procedure Act (5 U.S.C. 551 *et seq.*), the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the Eagle Protection Act (16 U.S.C. 668 *et seq.*), the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 *et seq.*), the American Indian Religious Freedom Act (42 U.S.C. 1996), the Religious Freedom Restoration Act (42 U.S.C. 2000bb), and the Federal Grant and Cooperative Agreement Act of 1977 (31 U.S.C. 6303–05).

I reserve the authority to make further waivers from time to time as I may determine to be necessary to accomplish the provisions of section 102 of the IIRIRA, as amended.

Michael Chertoff,

Secretary.

[FR Doc. E8–7450 Filed 4–7–08; 8:45 am]

BILLING CODE 4410–10–P

DEPARTMENT OF HOMELAND SECURITY

Office of the Secretary

Determination Pursuant to Section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as Amended

AGENCY: Office of the Secretary, Department of Homeland Security.

ACTION: Notice of determination; correction.

SUMMARY: The Secretary of Homeland Security has determined, pursuant to law, that it is necessary to waive certain laws, regulations and other legal requirements in order to ensure the expeditious construction of barriers and roads in the vicinity of the international land border of the United States. The notice of determination was published in the **Federal Register** on April 3, 2008. Due to a publication error, the description of the Project Areas was inadvertently omitted from the April 3 publication. For clarification purposes, this document is a republication of the April 3 document including the omitted description of the Project Areas.

DATES: This Notice is effective on April 8, 2008.

Determination and Waiver

I have a mandate to achieve and maintain operational control of the borders of the United States. Public Law 109–367, 2, 120 Stat. 2638, 8 U.S.C. 1701 note. Congress has provided me with a number of authorities necessary to accomplish this mandate. One of these authorities is found at section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (''IIRIRA''). Public Law 104–208, Div. C, 110 Stat. 3009–546, 3009–554 (Sept. 30, 1996) (8 U.S.C 1103 note), as amended by the REAL ID Act of 2005, Public Law 109–13, Div. B, 119 Stat. 231, 302, 306 (May 11, 2005) (8 U.S.C. 1103 note), as amended by the Secure Fence Act of 2006, Public Law 109–367, 3, 120 Stat. 2638 (Oct. 26, 2006) (8 U.S.C. 1103 note), as amended by the Department of Homeland Security Appropriations Act, 2008, Public Law 110–161, Div. E, Title V, 564, 121 Stat. 2090 (Dec. 26, 2007). In Section 102(a) of IIRIRA, Congress provided that the Secretary of Homeland Security shall take such actions as may be necessary to install additional physical barriers and roads (including the removal of obstacles to detection of illegal entrants) in the vicinity of the United States border to deter illegal crossings in areas of high illegal entry into the United States. In Section 102(b) of IIRIRA, Congress has called for the installation of fencing, barriers, roads, lighting, cameras, and sensors on not less than 700 miles of the southwest border, including priority miles of fencing that must be completed by December 2008. Finally, in section 102(c) of the IIRIRA, Congress granted to me the authority to waive all legal requirements that I, in my sole discretion, determine necessary to ensure the expeditious construction of barriers and roads authorized by section 102 of IIRIRA.

I determine that the following areas in the vicinity of the United States border, located in the States of California, Arizona, New Mexico, and Texas are areas of high illegal entry (collectively ''Project Areas''):

California

- Starting approximately 1.5 mile east of Border Monument (BM) 251 and ends approximately at BM 250.
- Starting approximately 1.1 miles west of BM 245 and runs east for approximately 0.8 mile.
- Starting approximately 0.2 mile west of BM 243 and runs east along the border for approximately 0.5 mile.
- Starting approximately 0.7 mile east of BM 243 and runs east along the border for approximately 0.9 mile.
- Starting approximately 1.0 mile east of BM 243 and runs east along the border for approximately 0.9 mile.
- Starting approximately 0.7 mile west of BM 242 and stops approximately 0.4 mile west of BM 242.
- Starting approximately 0.8 mile east of BM 242 and runs east along the border for approximately 1.1 miles.
- Starting approximately 0.4 mile east of BM 239 and runs east for approximately 0.4 mile along the border.
- Starting approximately 1.2 miles east of BM 239 and runs east for approximately 0.2 mile along the border.
- Starting approximately 0.5 mile west of BM 235 and runs east along the border for approximately 1.1 miles.
- Starting approximately 0.8 mile east of BM 235 and runs east along the border for approximately 0.1 mile.
- Starting approximately 0.6 mile east of BM 234 and runs east for approximately 1.7 miles along the border.
- Starting approximately 0.4 mile east of BM 233 and runs east for approximately 2.1 miles along the border.
- Starting approximately 0.05 mile west of BM 232 and runs east for approximately 0.1 mile along the border.

• Starting approximately 0.2 mile east of BM 232 and runs east for approximately 1.5 miles along the border.

• Starting 0.6 mile east of Border Monument 229 heading east along the border for approximately 11.3 miles to BM 225.

• Starting approximately 0.1 mile east of BM 224 and runs east along the border for approximately 2.5 miles.

• Starting approximately 2.3 miles east of BM 220 and runs east along the border to BM 207.

Arizona

• Starting approximately 1.0 mile south of BM 206 and runs south along the Colorado River for approximately 13.3 miles.

• Starting approximately 0.1 mile north of County 18th Street running south along the border for approximately 3.8 miles.

• Starting at the Eastern edge of BMGR and runs east along the border to approximately 1.3 miles west of BM 174.

• Starting approximately 0.5 mile west of BM 168 and runs east along the border for approximately 5.3 miles.

• Starting approximately 1 mile east of BM 160 and runs east for approximately 1.6 miles.

• Starting approximately 1.3 miles east of BM 159 and runs east along the border to approximately 0.3 mile east of BM 140.

• Starting approximately 2.2 miles west of BM 138 and runs east along the border for approximately 2.5 miles.

• Starting approximately 0.2 miles east of BM 136 and runs east along the border to approximately 0.2 mile west of BM 102.

• Starting approximately 3 miles west of BM 99 and runs east along the border approximately 6.5 miles.

• Starting approximately at BM 97 and runs east along the border approximately 6.9 miles.

• Starting approximately at BM 91 and runs east along the border to approximately 0.7 miles east of BM 89.

• Starting approximately 1.7 miles west of BM 86 and runs east along the border to approximately 0.7 mile west of BM 86.

• Starting approximately 0.2 mile west of BM 83 and runs east along the border to approximately 0.2 mile east of BM 73.

New Mexico

• Starting approximately 0.8 mile west of BM 69 and runs east along the border to approximately 1.5 miles west of BM 65.

• Starting approximately 2.3 miles east of BM 65 and runs east along the border for approximately 6.0 miles.

• Starting approximately 0.5 mile east of BM 61 and runs east along the border until approximately 1.0 mile west of BM 59.

• Starting approximately 0.1 miles east of BM 39 and runs east along the border to approximately 0.3 mile east of BM 33.

• Starting approximately 0.25 mile east of BM 31 and runs east along the border for approximately 14.2 miles.

• Starting approximately at BM 22 and runs east along the border to approximately 1.0 mile west BM 16.

• Starting at approximately 1.0 mile west of BM 16 and runs east along the border to approximately BM 3.

Texas

• Starting approximately 0.4 miles southeast of BM 1 and runs southeast along the border for approximately 3.0 miles.

• Starting approximately 1 Mi E of the intersection of Interstate 54 and Border Highway and runs southeast approximately 57 miles in proximity to the IBWC levee to 3.7 miles east of the Ft Hancock POE.

• Starting approximately 1.6 miles west of the intersection of Esperanza and Quitman Pass Roads and runs along the IBWC levee east for approximately 4.6 miles.

• Starting at the Presidio POE and runs west along the border to approximately 3.2 miles west of the POE.

• Starting at the Presidio POE and runs east along the border to approximately 3.4 miles east of the POE.

• Starting approximately 1.8 miles west of Del Rio POE and runs east along the border for approximately 2.5 miles.

• Starting approximately 1.3 Mi north of the Eagle Pass POE and runs south approximately 0.8 miles south of the POE.

• Starting approximately 2.1 miles west of Roma POE and runs east approximately 1.8 miles east of the Roma POE.

• Starting approximately 3.5 miles west of Rio Grande City POE and runs east in proximity to the Rio Grande river for approximately 9 miles.

• Starting approximately 0.9 miles west of County Road 41 and runs east approximately 1.2 miles and then north for approximately 0.8 miles.

• Starting approximately 0.5 mile west of the end of River Dr and runs east in proximity to the IBWC levee for approximately 2.5 miles.

• Starting approximately 0.6 miles east of the intersection of Benson Rd and Cannon Rd and runs east in proximity to the IBWC levee for approximately 1 mile.

• Starting at the Los Indios POE and runs west in proximity to the IBWC levee for approximately 1.7 miles.

• Starting at the Los Indios POE and runs east in proximity to the IBWC levee for approximately 3.6 miles.

• Starting approximately 0.5 mile west of Main St and J Padilla St intersection and runs east in proximity to the IBWC levee for approximately 2.0 miles.

• Starting approximately 1.2 miles west of the Intersection of U.S. HWY 281 and Los Ranchitos Rd and runs east in proximity to the IBWC levee for approximately 2.4 miles.

• Starting approx 0.5 miles southwest of the intersection of U.S. 281 and San Pedro Rd and runs east in proximity to the IBWC levee for approximately 1.8 miles.

• Starting approximately 0.1 miles southwest of the Intersection of Villanueva St and Torres Rd and runs east in proximity to the IBWC levee for approximately 3.6 miles.

• Starting approximately south of Palm Blvd and runs east in proximity to the City of Brownsville's levee to approximately the Gateway-Brownsville POE where it continues south and then east in proximity to the IBWC levee for a total length of approximately 3.5 miles.

• Starting at the North Eastern Edge of Ft Brown Golf Course and runs east in proximity to the IBWC levee for approximately 1 mile.

• Starting approximately 0.3 miles east of Los Tomates-Brownsville POE and runs east and then north in proximity to the IBWC levee for approximately 13 miles.

In order to deter illegal crossings in the Project Areas, there is presently a need to construct fixed and mobile barriers (such as fencing, vehicle barriers, towers, sensors, cameras, and other surveillance, communication, and detection equipment) and roads in the vicinity of the border of the United States. In order to ensure the expeditious construction of the barriers and roads that Congress prescribed in the IIRIRA in the Project Areas, which are areas of high illegal entry into the United States, I have determined that it is necessary that I exercise the authority that is vested in me by section 102(c) of the IIRIRA as amended.

Accordingly, I hereby waive in their entirety, with respect to the construction of roads and fixed and mobile barriers (including, but not limited to, accessing the project area, creating and using staging areas, the

conduct of earthwork, excavation, fill, and site preparation, and installation and upkeep of fences, roads, supporting elements, drainage, erosion controls, safety features, surveillance, communication, and detection equipment of all types, radar and radio towers, and lighting) in the Project Areas, all federal, state, or other laws, regulations and legal requirements of, deriving from, or related to the subject of, the following laws, as amended: The National Environmental Policy Act (Pub. L. 91–190, 83 Stat. 852 (Jan. 1, 1970) (42 U.S.C. 4321 *et seq.*)), the Endangered Species Act (Pub. L. 93–205, 87 Stat. 884 (Dec. 28, 1973) (16 U.S.C. 1531 *et seq.*)), the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act) (33 U.S.C. 1251 *et seq.*)), the National Historic Preservation Act (Pub. L. 89–665, 80 Stat. 915 (Oct. 15, 1966) (16 U.S.C. 470 *et seq.*)), the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), the Clean Air Act (42 U.S.C. 7401 *et seq.*), the Archeological Resources Protection Act (Pub. L. 96–95, 16 U.S.C. 470aa *et seq.*), the Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), the Noise Control Act (42 U.S.C. 4901 *et seq.*), the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*), the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 *et seq.*), the Archaeological and Historic Preservation Act (Pub. L. 86–523, 16 U.S.C. 469 *et seq.*), the Antiquities Act (16 U.S.C. 431 *et seq.*), the Historic Sites, Buildings, and Antiquities Act (16 U.S.C. 461 *et seq.*), the Wild and Scenic Rivers Act (Pub. L. 90–542, 16 U.S.C. 1281 *et seq.*), the Farmland Protection Policy Act (7 U.S.C. 4201 *et seq.*), the Coastal Zone Management Act (Pub. L. 92–583, 16 U.S.C. 1451 *et seq.*), the Wilderness Act (Pub. L. 88–577, 16 U.S.C. 1131 *et seq.*), the Federal Land Policy and Management Act (Pub L. 94–579, 43 U.S.C. 1701 *et seq.*), the National Wildlife Refuge System Administration Act (Pub. L. 89–669, 16 U.S.C. 668dd–668ee), the Fish and Wildlife Act of 1956 (Pub. L. 84–1024, 16 U.S.C. 742a, *et seq.*), the Fish and Wildlife Coordination Act (Pub. L. 73–121, 16 U.S.C. 661 *et seq.*), the Administrative Procedure Act (5 U.S.C. 551 *et seq.*), the Otay Mountain Wilderness Act of 1999 (Pub. L. 106–145), Sections 102(29) and 103 of Title I of the California Desert Protection Act (Pub. L. 103–433), 50 Stat. 1827, the National Park Service Organic Act (Pub. L. 64–235, 16 U.S.C. 1, 2–4), the National Park Service General Authorities Act (Pub. L. 91–383, 16 U.S.C. 1a–1 *et seq.*), Sections 401(7), 403, and 404 of the National Parks and Recreation Act of 1978 (Pub. L. 95–625), Sections 301(a)–(f) of the Arizona Desert Wilderness Act (Pub. L. 101–628), the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the Eagle Protection Act (16 U.S.C. 668 *et seq.*), the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 *et seq.*), the American Indian Religious Freedom Act (42 U.S.C. 1996), the Religious Freedom Restoration Act (42 U.S.C. 2000bb), the National Forest Management Act of 1976 (16 U.S.C. 1600 *et seq.*), and the Multiple Use and Sustained Yield Act of 1960 (16 U.S.C. 528–531).

This waiver does not supersede, supplement, or in any way modify the previous waivers published in the **Federal Register** on September 22, 2005 (70 FR 55622), January 19, 2007 (72 FR 2535), and October 26, 2007 (72 FR 60870).

I reserve the authority to make further waivers from time to time as I may determine to be necessary to accomplish the provisions of section 102 of the IIRIRA, as amended.

Michael Chertoff,

Secretary.

[FR Doc. E8–7451 Filed 4–7–08; 8:45 am]

BILLING CODE 4410–10–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[USCG–2008–0202]

Information Collection Request to Office of Management and Budget; OMB Control Numbers: 1625–0044, 1625–0045, and 1625–0060

AGENCY: Coast Guard, DHS.

ACTION: Sixty-day notice requesting comments.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995, the U.S. Coast Guard intends to submit Information Collection Requests (ICRs) and Analyses to the Office of Management and Budget (OMB) requesting an extension of their approval for the following collections of information: (1) 1625–0044, Outer Continental Shelf Activities—Title 33 CFR Subchapter N; (2) 1625–0045, Adequacy Certification for Reception Facilities and Advance Notice—33 CFR part 158; and (3) 1625–0060, Vapor Control Systems for Facilities and Tank Vessels. Before submitting these ICRs to OMB, the Coast Guard is inviting comments as described below.

DATES: Comments must reach the Coast Guard on or before June 9, 2008.

ADDRESSES: To avoid duplicate submissions to the docket [USCG–2008–0202], please submit them by only one of the following means:

(1) *Online: http://www.regulations.gov.*

(2) *Mail:* Docket Management Facility (DMF) (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

(3) *Hand delivery:* DMF between the hours of 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

(4) *Fax:* 202–493–2251.

The DMF maintains the public docket for this notice. Comments and material received from the public, as well as documents mentioned in this notice as being available in the docket, will become part of this docket and will be available for inspection or copying at room W12–140 on the West Building Ground Floor, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find this docket on the Internet at *http://www.regulations.gov.*

A copy of the complete ICR is available through this docket on the Internet at *http://www.regulations.gov.* Additionally, copies are available from Commandant (CG–611), U.S. Coast Guard Headquarters (Attn: Mr. Arthur Requina), 2100 2nd Street, SW., Washington, DC 20593–0001. The telephone number is 202–475–3523.

FOR FURTHER INFORMATION CONTACT: Mr. Arthur Requina, Office of Information Management, telephone 202–475–3523, or fax 202–475–3929, for questions on these documents. Contact Ms. Renee V. Wright, Program Manager, Docket Operations, 202–366–9826, for questions on the docket.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

The Coast Guard invites comments on whether this information collection request should be granted based on it being necessary for the proper performance of Departmental functions. In particular, the Coast Guard would appreciate comments addressing: (1) The practical utility of the collections; (2) the accuracy of the estimated burden of the collections; (3) ways to enhance the quality, utility, and clarity of information subject to the collections; and (4) ways to minimize the burden of

APPENDIX B
Biological Resources Plan

BIOLOGICAL RESOURCES PLAN

FOR

CONSTRUCTION, OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE

FOR

EL PASO SECTOR, NEW MEXICO
LORDSBURG STATION

U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. CUSTOMS AND BORDER PROTECTION
U.S. BORDER PATROL EL PASO SECTOR

Prepared by

DECEMBER 2008

ABBREVIATIONS AND ACRONYMS

BMP	Best Management Practice
BRP	Biological Resources Plan
CBP	U.S. Customs and Border Protection
DAPTF	Declining Amphibians Populations Task Force
DHS	U.S. Department of Homeland Security
GPS	Global Positioning System
GSRC	Gulf South Research Corporation
IA	Illegal Alien
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
LWC	low water crossing
NE	No Effect
NEP	Non-essential Experimental Population
NLAA	Not Likely to Adversely Affect
MAA	May Adversely Affect
SPCCP	Spill Prevention, Control and Countermeasures Plan
SWPPP	Storm Water Pollution Prevention Plan
TI	Tactical Infrastructure
NMDGF	New Mexico Department of Game and Fish
U.S.	United States
USBP	U.S. Border Patrol
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

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EXECUTIVE SUMMARY

United States (U.S.) Department of Homeland Security (DHS), Customs and Border Protection (CBP), U.S. Border Patrol (USBP) plans to construct, operate and maintain approximately 42 miles of tactical infrastructure (TI) in three discrete sections (designated as Sections HV-1, HV-2; HV3; and HV4) in the USBP El Paso Sector. TI consists of vehicle fence, construction roads, and access roads in these three sections along the U.S./Mexico international border in Hidalgo County, New Mexico (Table ES-1). Staging areas, which are required for construction, will also be used while construction activities are ongoing.

Table ES-1. Type and Length (miles) of TI to be Constructed in Each Section of the Project Corridor

Section	Construction Road / Vehicle Fence	Access Road	Total
HV1 - HV2	10.45	10.25	20.7
HV3	5.8	9.56	15.36
HV4	5.98	0	5.98
Total	22.23	19.81	42.04

Eleven Federally listed taxa and one candidate species are known to occur, or could occur within or adjacent to the project area (U.S. Fish and Wildlife Service 2007a) (Table ES-2). Of the species listed in Table ES-2, the project may adversely affect the Chiricahua leopard frog. The project may affect, but is not likely to adversely affect the jaguar, northern aplomado falcon, Mexican long-nosed bat, lesser long-nosed bat, and the New Mexico ridge-nosed rattlesnake.

Within HV-4, the only species with potential to occur are the jaguar, lesser and Mexican long-nosed bats, and northern aplomado falcon. However, HV-4 will not affect agaves; thus, no forgaging habitat for the bats will be impacted. Additionally, the Antelope Wells Port of Entry (POE) is located in the middle of the project corridor, which extremely limits the potential for the reclusive jaguar to occur in this area. Therefore, CBP has determined that the only species that could be impacted within HV-4 is the aplomado falcon.

Table ES-2. Federally Listed Species and Critical Habitats Potentially Occurring within the Project Area and the Determination of Effects

Species	Listing/Critical Habitat Designated	Determination of Effect		
		HV1-HV2	HV3	HV-4
FISH				
Loach minnow *Tiaroga cobitis*	Threatened	NE	NE	NE
Loach minnow Critical Habitat	Proposed	NE	NE	NE
Spikedace *Meda fulgida*	Threatened	NE	NE	NE
Spikedace Critical Habitat	Proposed	NE	NE	NE
REPTILES AND AMPHIBIANS				
Chiricahua leopard frog *Rana chiricahuensis*	Threatened	MAA	MAA	NE
New Mexico ridge-nosed rattlesnake *Crotalus willardi obscurus*	Threatened	NLAA	NLAA	NE
New Mexico ridge-nosed rattlesnake Critical Habitat	Final	NE	NE	NE
BIRDS				
Mexican spotted owl *Strix occidentalis lucida*	Threatened	NE	NE	NE
Mexican spotted owl Critical Habitat	Final	NE	NE	NE
Northern aplomado falcon* *Falco femoralis septentrionalis*	Endangered	NLAA	NLAA	NLAA
Southwestern willow flycatcher *Empidonax traillii extimus*	Endangered	NE	NE	NE
Southwestern willow flycatcher Critical Habitat	Final	NE	NE	NE
Yellow-billed cuckoo *Coccyzus americanus*	Candidate	NE	NE	NE
MAMMALS				
Jaguar *Panthera onca*	Endangered	NLAA	NLAA	NE
Lesser long-nosed bat *Leptonycteris cuasoae yerbabuenae*	Endangered	NLAA	NLAA	NE
Mexican grey wolf *Canis lupus baileyi*	Endangered	NE	NE	NE
Mexican long-nosed bat *Leptonycteris nivalis*	Endangered	NLAA	NLAA	NE

MAA – May Adversely Affect NLAA – Not Likely to Adversely Affect NE – No Effect
* – Experimental Population

Due to lack of habitat near or within the project corridor and because of the lack of known occurrences, CBP has been determined that the project will have no effect on the following species: loach minnow, spikedace, Mexican spotted owl, southwestern willow flycatcher, yellow-billed cuckoo, Mexican grey wolf, least tern, and Rio Grande silvery minnow. Therefore, these species will not be discussed in detail in this

Biological Resources Plan (BRP). No Critical Habitat exists within the project corridor for any protected species.

On April 1, 2008, the Secretary of DHS, pursuant to his authority under Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), exercised his authority to waive certain environmental and other laws in order to ensure expeditious construction of TI along the U.S./Mexico international border. Although the Secretary's waiver means that CBP no longer has any specific legal obligations under these laws, the Secretary committed the DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP strongly supports this objective and remains committed to being a good steward of the environment. To that end, CBP has prepared the following BRP, which analyzes the potential impacts on threatened and endangered species associated with construction of TI in the USBP's El Paso Sector. This BRP also discusses CBP's plans as to how potential impacts on threatened and endangered species can be avoided or mitigated. The BRP will help to guide CBP's efforts going forward.

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1.0 PROJECT DESCRIPTION

United States (U.S.) Department of Homeland Security (DHS), Customs and Border Protection (CBP), U.S. Border Patrol (USBP) plans to construct, operate and maintain approximately 42 miles of tactical infrastructure (TI) in three discrete sections (designated as Sections HV1 and HV2; HV3; and HV4) (Figure 1-1) in the USBP El Paso Sector. The TI to be constructed consists of 22.2 miles of vehicle fence and construction roads, and 19.8 miles of access roads in three sections along the U.S./Mexico international border in Hidalgo County, New Mexico. In order to facilitate the construction of TI, staging areas will also be used. Construction is slated to be completed by the end of December 2008.

On April 1, 2008, the Secretary of DHS, pursuant to his authority under Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), exercised his authority to waive certain environmental and other laws in order to ensure expeditious construction of tactical infrastructure along the U.S./Mexico international border. Although the Secretary's waiver means that CBP no longer has any specific legal obligations under these laws, the Secretary committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP strongly supports this objective and remains committed to being a good steward of the environment. To that end, CBP has prepared the following BRP, which analyzes the potential impacts on threatened and endangered species associated with construction of TI in the USBP's El Paso Sector. This BRP also discusses CBP's plans as to how potential impacts on threatened and endangered species can be avoided or mitigated. The BRP provides guidance for CBP's future efforts.

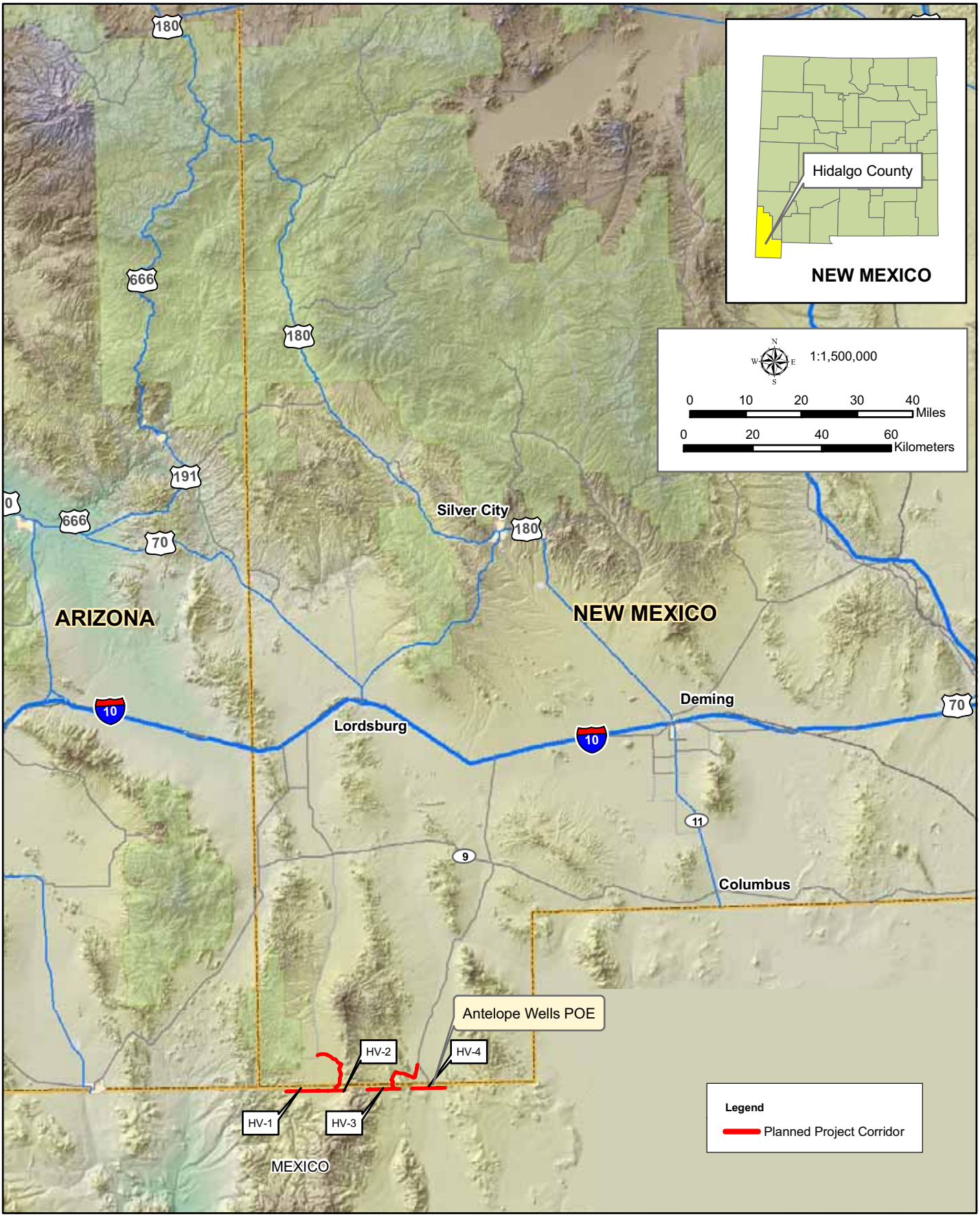

Figure 1-1: Vicinity Map

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1.1 LOCATION

The Planned TI will be installed immediately adjacent to the U.S./Mexico international border in Hidalgo County, New Mexico (Figures 1-2 and 1-3). The TI is divided among three discrete sections located within the USBP Lordsburg Station's area of operation (see Figure 1-1).

1.2 DESCRIPTION OF PLANNED ACTION

CBP, USBP plans to construct, operate, and maintain approximately 42 miles of TI, (i.e. vehicle fence, and construction an access roads) immediately adjacent to the U.S./Mexico international border in Hidalgo County, New Mexico (see Figure 1-2 and 1-3), in support of the USBP El Paso Sector mission.

1.2.1 Construction, Operation, and Maintenance

The construction activities within the project footprint of the three sections outlined above will consist of the following project components: (1) the installation and maintenance of new vehicle fence; (2) improvements to existing roads for access, construction, maintenance, and patrols; (3) the development of temporary construction staging areas and passing zones, which will be rehabilitated upon completion of construction, and (4) post-construction operation and maintenance.

1.2.2 Fence Installation

The Planned Action consists of constructing, operating, and maintaining approximately 22.2 miles of vehicle fence. The vehicle fence will be placed approximately 3 to 6 feet north of the U.S./Mexico border, within the Roosevelt Reservation. As the name implies, vehicle fences are structures designed to prevent illegal vehicle traffic; however, they are not designed to preclude pedestrian or wildlife movement. The vehicle fence (Normandy-style) to be constructed and installed as part of the

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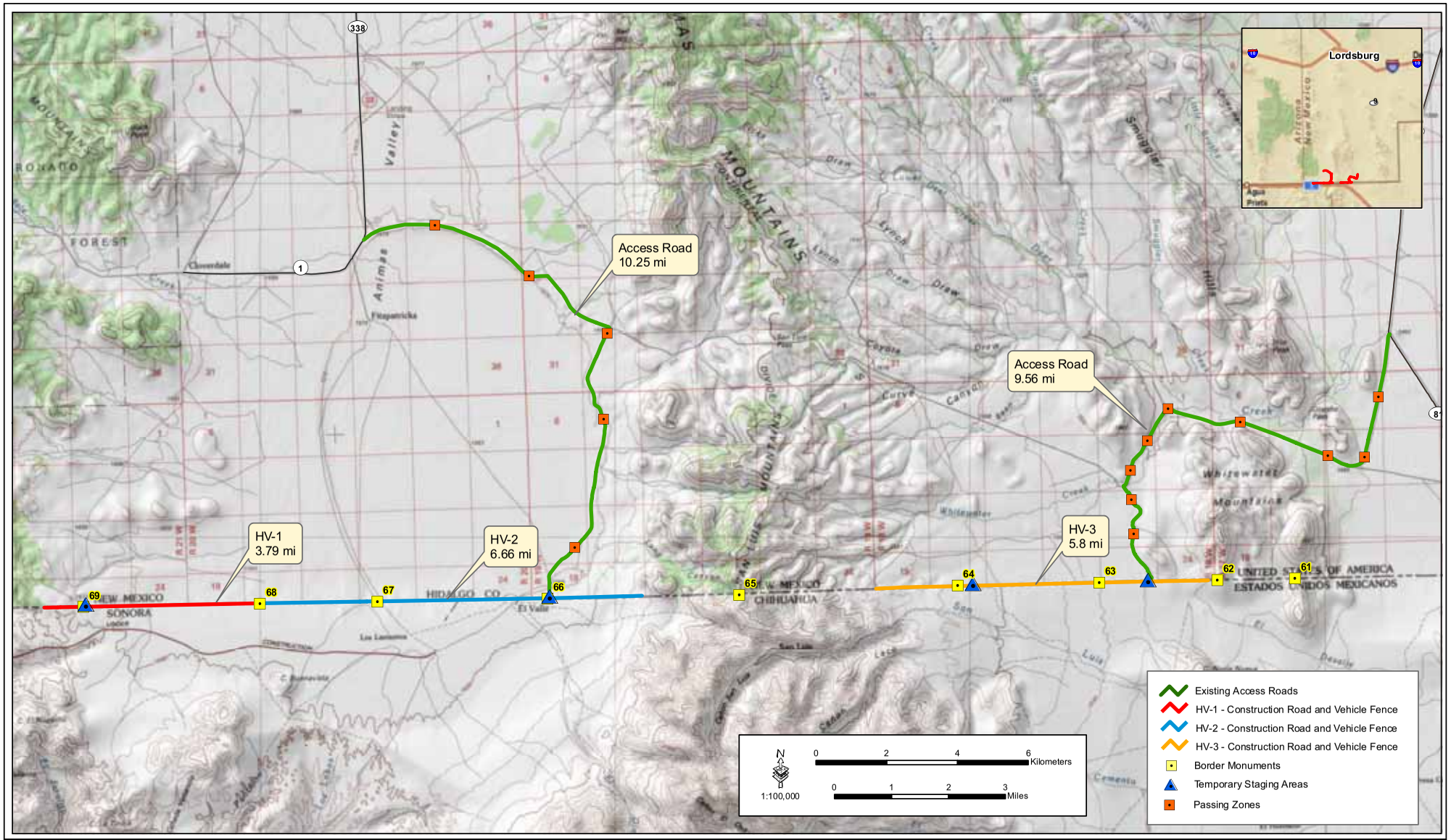

Figure1-2: Planned Action Project Corridor

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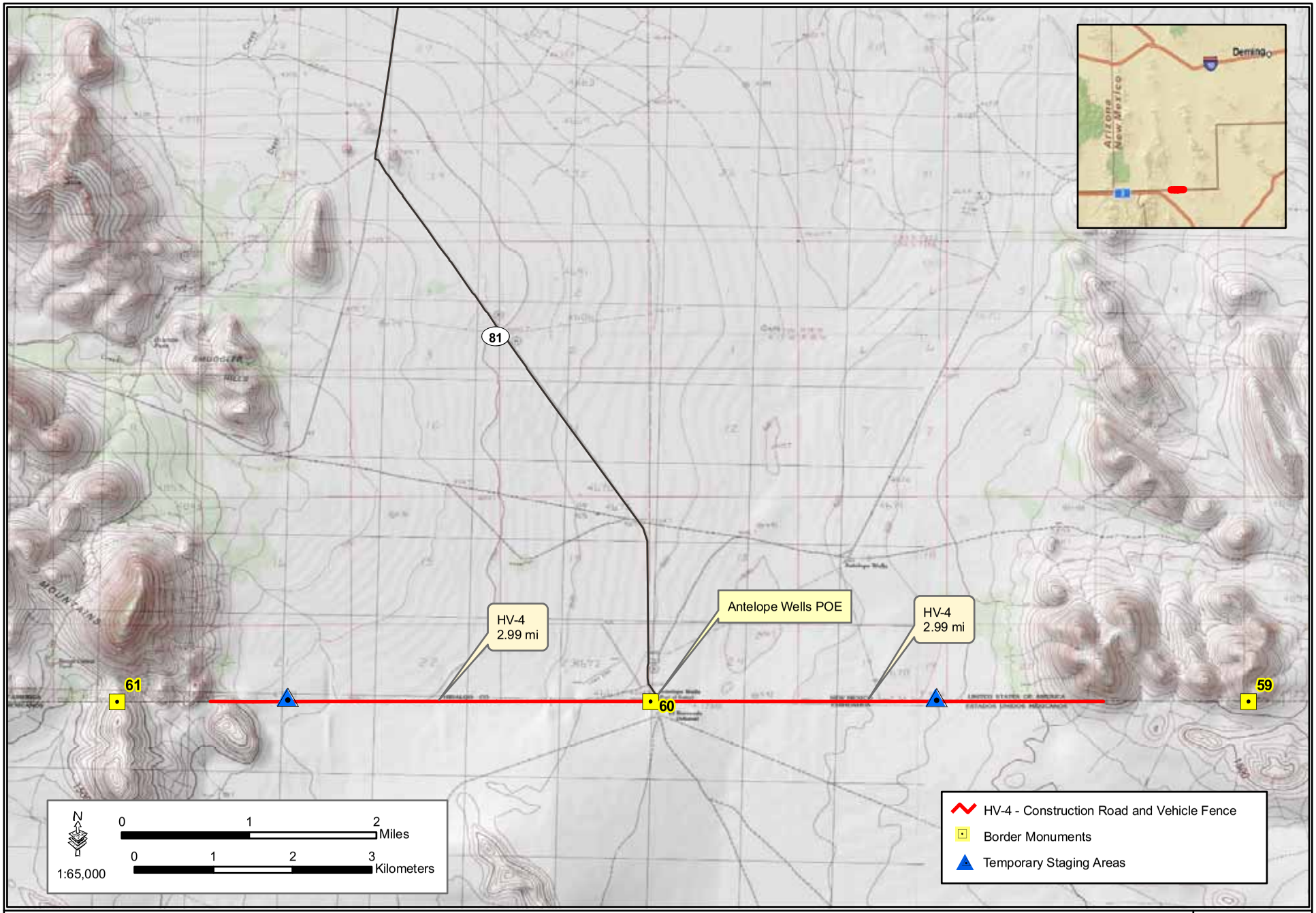

Figure 1-3: HV-4 Planned Action Project Corridor

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Planned Action (Photograph 1-1) will be placed along the border and result in little or no permanent ground disturbance. The Normandy-style vehicle fence is typically constructed of welded metal similar to railroad rail. This type of vehicle fence cannot be rolled or moved manually, and must be lifted using a forklift or front-end loader. The barriers will be constructed within the staging areas or Roosevelt Reservation, transported throughout the Project corridor, placed on the ground, anchored to the ground every 24-feet using a concrete or steel anchor only on slopes greater than 20 percent and near washes, and then welded together. A typical section of Normandy-style vehicle fence is 24 feet long and stands 4 to 6 feet high. Additionally, the vehicle fence will be outfitted with pipe, tubing, or a similar material that will parallel the horizontal rail no lower than 16 inches from the ground and no higher than 48 inches for the purposes of preventing livestock from crossing. Big game panels will also be installed every 1,300 feet to allow large ungulates (i.e., mule deer [*Odocoileus hemionus*]) to easily cross the fence. The panels will consist of steel tubing approximately 12 to 16 feet long placed at the same height as the rail on the vehicle fence. The panels will be similar in appearance to a gate.

Photograph 1-1. Vehicle Fence (Normandy-style)

1.2.3 Road Improvements

Construction roads are needed to provide a safe driving surface along the border for construction and future maintenance of the vehicle fence. These are typically 28 feet wide. Water bars will be installed at various locations along the road to direct storm water into parallel ditches or down slope to reduce erosion of the road surface. Upon completion of the construction activities the construction roads will also be used for patrolling, and dragging, as well as maintenance of the vehicle fence.

Access roads provide access to the border fence itself, as well as the border fence construction road. Within the project corridor, road improvements will occur on approximately 19.8 miles of existing access roads. Two north-south oriented roads provide direct access to the border from State Routes 1 and 81 in Hidalgo County. These access roads will not exceed 28-feet in width but will have aggregate placed on them. The aggregate and any other improvements made to these access roads will be removed to the greatest extent practicable within a year of completion of the construction activities.

The improvement of the access and construction roads will include the construction of new drainage structures or low water crossings (LWC). Drainage structures will consist of corrugated pipe or concrete box culverts, while LWCs will consist of concrete slabs designed with suitable approach angles. Culverts may also be incorporated into the design of LWCs, as appropriate. The size and number of culverts required will depend upon the width of the drainage and the expected flood flow volumes and velocities at each of the drainage crossings. Each drainage structure will be designed to ensure that flows are not impeded, thus avoiding creation of backwater areas. The designs will also ensure that water velocity is not increased by the drainage structure. Drainage patterns within the project footprint will not be altered as a result of the Planned Action. Silting basins, rip rap, gabion baskets, and other designs will be used on both ends of the drainage structure to dissipate the water flow energy. Head, tail, and cut-off walls will be constructed, as appropriate, to reduce scouring and ensure the stability of the drainage structure.

In order to facilitate operation of equipment, staging of materials, and construction access within the project corridor along the U.S./Mexico border, six temporary staging areas (240-feet X 300-feet), totaling 10 acres will be created. In addition, 14 passing zones will be developed. These passing zones will be approximately 60 feet wide by 200 feet long and will encompass the improved roadway (28 feet wide). The passing zones are necessary to allow for safe passage of transport vehicles, materials, and equipment (Figure 1-4). The passing zones will temporarily impact approximately 2

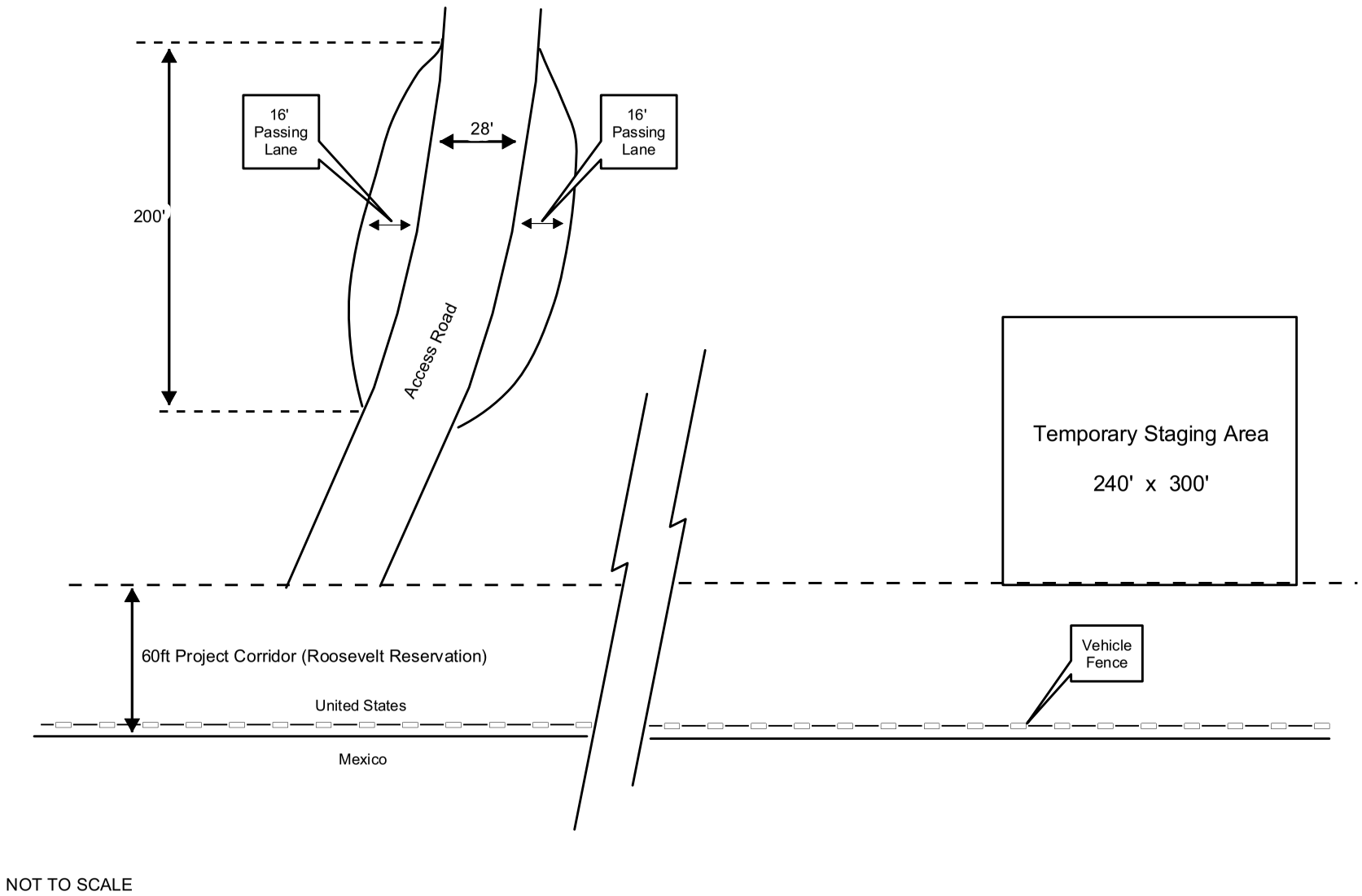

Figure 1-4: Schematics of Project Corridor

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acres. Aggregate will be placed in these passing zones; however, the aggregate will be removed to the greatest extent practicable within a year of completing construction activities. The passing zones are necessary to allow for safe passage of transport vehicles and equipment. Upon completion of the construction activities the passing zones will be brought back to preconstruction condition to the greatest extent practicable.

Vegetation will be cleared and grading will occur where needed in the staging areas. Upon completion of construction activities, these staging areas will be rehabilitated.

To account for heat restrictions for adequate concrete drying and curing processes, most concrete pours for low water crossings, other drainage structures, and fencing will need to take place during the pre-dawn hours. However, the possibility exists that work will have to occur on a 24-hour basis. A 24-hour schedule will be implemented only when additional efforts are needed in order to maintain the work task schedule as Federally mandated. In order to facilitate construction activities during these work hours, portable lights will be used. It is estimated that no more than 12 lights will be in operation at any one time at each Project site.

A 6-kilowatt self-contained diesel generator powers these lights. Each unit typically has four 400- to 1000-watt lamps. The portable light systems can be towed to the desired construction location as needed and removed upon completion of construction activities. Lights will be oriented to illuminate the work area and provide illumination sufficient to work within in area up to 200 feet from the light source.

The construction footprint of the vehicle fence will be contained primarily within the 60-foot-wide Roosevelt Reservation (except for the staging areas), which was set aside in 1907 by President Roosevelt as a border enforcement zone. Additionally, all materials and equipment that will be stored onsite will be done so within the designated staging areas. The Planned Action will be constructed by private contractors, though some

military units could be used to assist in road construction. The anticipated dates for construction activities are from mid-September through December 2008.

1.2.4 Maintenance and Operations

There will be no change in overall USBP Sector operations. Upon completion of the TI, CBP will be responsible for repair and maintenance of the fence and road. Such activities will include replacement or repair of fence segments that are vandalized, removal of debris that becomes entrapped along the fence or within any drainage structures, and grading of the road surface. These activities will occur on an as-needed basis; however, routine road maintenance will be expected to occur at least annually.

1.3 BEST MANAGEMENT PRACTICES

The following best management practices (BMPs) will be implemented to avoid or minimize impacts associated with the project. These represent project objectives for implementation to the greatest extent possible and will be incorporated into construction and monitoring contracts.

1.3.1 General BMPs

1. BMPs will be implemented as standard operating procedures during all construction activities. These BMPs will include proper handling, storage, and/or disposal of hazardous and/or regulated materials. To minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all construction 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. Furthermore, any spill of petroleum liquids (e.g., fuel) or material listed on 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 will be included as part of the Spill Prevention, Control and Countermeasures Plan (SPCCP). A SPCCP will be in

place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan.

2. All waste oil and solvents will be recycled where practicable. 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.
3. Solid waste receptacles will be maintained at staging areas, work camps, bivouacs, and camp details. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor. Non-hazardous waste will remain separate from hazardous waste and contractors will, to the extent practicable, remove excess packaging and other wastes prior to transporting supplies to construction areas.
4. Waste materials and other discarded materials will be removed from the site as quickly as practicable. Nonhazardous waste materials and other discarded materials such as construction waste will be contained until removed from site. This should assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage.
5. To reduce the attraction of predators of Federally protected species, all food-related trash items such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers, removed daily from the project site, and will be recycled to the extent practicable.
6. Waste water (water used for project purposes that is contaminated with construction materials, was used for cleaning equipment and thus carries oils or other toxic materials or other contaminants) will be stored in closed containers on site until removed for disposal. Concrete wash water will not be dumped on the ground, but will be collected and moved offsite for disposal.
7. The perimeter of all areas to be disturbed during construction or maintenance activities will be clearly demarcated using flagging or temporary construction fence, and no construction disturbance outside of that perimeter will be authorized.
8. Within the designated disturbance areas, grading or topsoil removal will be limited to areas where this activity is needed to provide the ground conditions needed for construction or maintenance activities. Minimizing disturbance to soils will enhance the ability to restore the disturbed area after the project is complete.
9. When available, areas already disturbed by past activities or those that will be used later in the construction period will be used for staging, parking, and equipment storage.
10. All access routes into and out of the project disturbance area will be flagged, and no construction travel outside those boundaries will be authorized.

11. To the extent practicable, roads will be designed so that they are not located at or near stream bends or meanders but rather at straight stream reaches where channel stability is enhanced.
12. Roads will be designed and located such that the potential for road bed erosion into Federally protected species habitat will be avoided or minimized.
13. Roads will be designed such that the potential for entrapment of surface flows within the roadbed due to grading should be avoided or minimized. Depth of any pits created will be minimized so animals do not become trapped.
14. Roads will be designed and located such that the widening of existing or created roadbed beyond the design parameters due to improper maintenance and use will be avoided or minimized.
15. Roads will be designed and located such that excessive use of unimproved roads that results in their deterioration such that it affects any surrounding federally protected species habitat areas will be minimized.
16. The Contractor will maintain existing roads during construction and return the existing roads to pre-construction conditions once construction is complete, unless road was upgraded. The width of all roads that are created or maintained by the Contractor will be measured and recorded using Global Positioning System (GPS) coordinates and provided to the Government by the construction Contractor. Maintenance actions should not increase the width of the road bed or the amount of disturbed area beyond the road bed.
17. No pets owned or under the care of the construction contractor or construction workers will be permitted inside the Project's construction boundaries, adjacent native habitats, or other associated work areas. This BMP does not apply to any animals under service to the USBP (such as canine and horse patrols).
18. If construction or maintenance work activities would continue at night, all lights will be shielded to direct light only onto the work site and the area necessary to ensure the safety of the workers, the minimum foot candles needed will be used, and the number of lights should be minimized.
19. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared by the contractor prior to construction activities and BMPs described in the SWPPP will be implemented to reduce erosion.
20. Within the designated disturbance area, grading or topsoil removal will be limited to areas where this activity is needed to provide the ground conditions needed for construction or maintenance activities. Minimizing disturbance to soils will enhance the ability to restore the disturbed area after the project is complete.
21. Materials such as gravel or topsoil will be obtained from existing developed or previously used sources not from undisturbed areas adjacent to the project area.
22. Transmission of disease vectors and invasive non-native aquatic species can occur if construction vehicles cross infected or infested streams or other waters and water or mud remains on the vehicle. If these vehicles subsequently cross or enter uninfected or non-infested waters, the disease or invasive species may be

introduced to the new area. To prevent this, crossing of streams or marsh areas with flowing or standing water will be avoided, and if not, the vehicle sprayed with a 10 percent bleach solution or allowed to dry completely to kill any organisms.

23. Pumps, hoses, tanks and other water storage devices will be cleaned and disinfected with a 10 percent bleach solution at an appropriate facility (this water is not to enter any surface water area) before use at another site, if untreated surface water was used. If a new water source is used that is not from a treated or groundwater source, the equipment will require additional cleaning. This is important to kill any residual disease organisms or early life stages of invasive species that may affect local populations of Federally protected species.

24. Materials used for on-site erosion control in uninfested native habitats will be free of non-native plant seeds and other plant parts to limit potential for infestation. Since natural materials cannot be certified as completely weed-free, if such materials are used, there will be follow up monitoring to document establishment of non-native plants and appropriate control measures should be implemented for a period of time to be determined in the site restoration plan.

25. During follow-up monitoring and during maintenance activities, invasive plants found on the site will be removed. Removal will be done in ways that eliminate the entire plant and remove all plant parts to a disposal area. Herbicides must be used according to label directions. If herbicides are used the treated plants should be left in place. Training to identify non-native invasive plants will be provided for CBP personnel or contractors as necessary.

26. Fill material, if required, brought in from outside the project area will be identified as to source location and will be weed free to the extent practicable.

27. The USFWS lists Federally protected species with the potential of occurring in Hidalgo County, New Mexico. It is the Contractor's responsibility to be aware of these species and if any of these species are encountered the Contractor will take appropriate measures, potentially including temporarily suspending work.

28. If an individual Federally listed species is found in the Project corridor, work will cease in the area of the species until either a qualified biological monitor can safely remove the individual in accordance with accepted species-handling protocols or it moves away on its own, if appropriate and to the extent practicable and construction schedule permitting. Such occurrences will be documented by the biological monitor. All construction and maintenance projects in Federally listed habitats should have a designated biological monitor on site during the work. The biological monitor should document implementation of construction-related BMPs as designed for the Project to reduce the potential for adverse effects on the species or their habitats. Reports from the biological monitor should be used for developing the Project Report.

29. A training plan regarding protected species will be developed in coordination with USFWS for construction personnel. At a minimum, the program will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, protection afforded

these species, and project features designed to reduce the impacts to these species and promote continued successful occupation of the project area environs. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos will be posted in the contractor and resident engineer office, where they will remain through the duration of the project. The selected Contractor's construction manager will be responsible for ensuring that the Contractor's employees are aware of the listed species.

31. Water for construction and maintenance will be hauled into the project corridor from existing wells located either near the project corridor or from municipal supplies in other towns in Hidalgo, Grant, or Luna Counties. It is assumed that for road construction approximately 0.5 acre-foot per mile of water would be needed for dust suppression and compaction. This water will be consumed during the construction activities, which will be completed by December 2008.

32. Water storage on the project area should be in closed on-ground containers located on upland areas and not in washes.

33. For purposes of construction, infrastructure sites will only be accessed using designated, existing roads. Parking will be in designated disturbed areas. This should limit the development of multiple trails to such sites and reduce the effects to Federally protected species habitat in the vicinity.

34. 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 materials. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment area consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all construction vehicles will have drip pans during storage to contain minor spills and drips. Portable lights, once established, will be fueled in place with proper containment measures. No refueling or storage will take place within 100 feet of a drainage channel or structure. Other design measures will be implemented, such as straw bales, silt fencing, aggregate materials, wetting compounds, and re-vegetation with native plant species, where possible, to decrease erosion and sedimentation. Furthermore, a contractor will complete a SWPPP before construction activities begin.

35. All equipment maintenance, staging, laydown, and dispensing of fuel, oil, or any other such activities, will occur in designated upland areas. The designated upland areas will be located in such a manner as to prevent any runoff from entering waters of the U.S., including wetlands.

36. If construction or maintenance work activities occur at night, all lights will be shielded to direct light only onto the work site and the area necessary to ensure the safety of the workers, the minimum wattage needed will be used, and the number of lights should be minimized.

37. The Contractor will not conduct any construction related activities in areas that have not been previously surveyed for biological resources.
38. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires.
39. Noise levels for day or night construction and maintenance should be minimized. All generators should be in baffle boxes (a sound-resistant box that is placed over or around a generator), have an attached muffler, or use other noise-abatement methods in accordance with industry standards.

BMPs for Temporary Impacts

The following apply as off-setting conservation measures for temporary impacts:

1. Site restoration of temporarily disturbed areas such as staging areas and construction access routes will be monitored for invasive plants as appropriate.
2. During follow-up monitoring of any restoration areas, invasive plants that appear on the site will be removed. Mechanical removal will be done in ways that eliminate the entire plant and remove all plant parts to a disposal area. Herbicides must be used according to label directions. The monitoring period will be defined in the site restoration plan. Training to identify nonnative invasive plants will be provided for CBP contractor personnel, as necessary.
3. Temporary impact areas will be restored in-kind, except temporary impacts on disturbed habitat and non-native grassland. In general, native areas should be revegetated with the most appropriate native plant palette following completion of the work.
4. Native species will be used for revegetation purposes.

Species-Specific BMPs

In addition to the General BMPs outlined above, the following measures will be implemented to the maximum extent practicable, to avoid, minimize, or offset impacts associated with the project on the Federally listed jaguar, Chiricahua leopard frog, northern aplomado falcon, New Mexico ridge-nosed rattlesnake, lesser long-nosed bat, and Mexican long-nosed bat.

Jaguar (*Panthera onca*)

During any construction activities, if a jaguar is seen within 1 mile of construction activities, any work that could disturb the jaguar will cease. For construction vehicle operations, this will entail stopping the vehicle until the jaguar moves away. Vehicles

can continue on at reduced speeds (10–15 miles per hour) once the jaguar has moved away. For construction, the biological monitor will request that work be suspended until the jaguar moves out of the area. As the schedule permits, construction crews may be advised to wait up to 3 hours from the initial sighting for the jaguar to move beyond 1 mile away from the project activity or vehicle. After such time, if the construction schedule permits, project personnel may retreat from the area in the direction from which they came. During maintenance activities, appropriately trained construction staff will suspend maintenance activities until the jaguar moves away, if practicable.

Chiricahua Leopard Frog (*Rana chiricahuensis*)

Disease prevention protocols will be employed if the project is in areas known or likely to harbor chytridiomycosis (consult with USFWS to identify these areas). In such cases, if construction vehicle/equipment use will occur in more than one frog habitat, the contractor will ensure that all equipment is clean and dry or disinfected before it moves to another habitat.

All road improvements will be designed to minimize the risk of erosion or adverse effects to aquatic habitats of the frog. Routes that cross seasonally or perennially flowing streams will be avoided to the extent practicable. If not avoidable, crossings will be designed to minimize effects to streams through use of culverts or other design features that protect natural substrates and flows. If construction or maintenance projects cannot avoid working in aquatic sites that provide suitable breeding habitat for the frog, in order to prevent spread of disease, construction equipment and vehicles will be disinfected or allowed to dry thoroughly before such equipment is moved to another wetland or aquatic site.

Any use or storage of chemicals or fuels within the construction corridor or staging areas will be kept at least 0.3 mile from suitable frog sites to the greatest extent practicable. No pumping of water from suitable breeding sites will occur for road maintenance, dust control, mixing concrete or other purposes. No transfer of water or mud among suitable breeding sites will occur. Use of herbicides to control unwanted

invasive plants at facilities or roadsides is an acceptable management technique when used according to label directions such that introduction of the herbicides to the frog's aquatic habitats does not occur.

Chiricahua leopard frogs found within the project corridor and could be potentially affected by any construction activities will be captured and translocated by a qualified biologist to the closest and safest area of suitable habitat. Any relocation efforts or handling of Chiricahua leopard frogs will be coordinated with the FWS and New Mexico Department of the Game and Fish (NMDGF) to ensure proper handling of individuals and appropriate relocation site selection. The biologist will coordinate with the appropriate property owners to allow for any Chiricahua leopard frogs to be placed in areas selected as suitable translocation sites. The USFWS will assist CBP in locating qualified biological monitors. During the removal of frogs, a qualified biologist will maintain a complete record of all Chiricahua leopard frogs encountered and moved. The date, time of capture, and specific location of capture (using GPS) will be recorded and provided to the USFWS as part of the final Project Report. To avoid transferring disease or pathogens between aquatic habitats during surveys and handling of Chiricahua leopard frogs, the qualified biologist will follow the Declining Amphibian Populations Task Force (DAPTF) - Fieldwork Code of Practice (DAPTF 2008) or newer version, when available.

Mexican Long-nosed Bat (*Leptonycteris nivalis*) and Lesser Long-nosed Bat (*Leptonycteris curasoae yerbabuenae*)

Areas containing agaves which provide a forage base for the bat will be avoided if possible. If they cannot be avoided, then agaves will be purchased and planted at an appropriate ratio to replace lost agave plants to ensure no bat forage materials are eliminated due to project activities. Container planting will be done in accordance with a restoration plan that includes success criteria and monitoring. The effects of night lighting on bats are largely unknown. Since several important foraging areas containing known roosts are on the Mexico side of the border near the project corridor, placement of temporary work lights in extensive areas may compromise cross-border foraging

ability. CBP will consider location and direction (orientation) of temporary construction lighting to the extent practicable.

New Mexico Ridge-nosed Rattlesnake (*Crotalus willardi obscurus*)

Construction of roads and fences that would require land clearing, will be coordinated with land managers relative to wildland fire management plans to ensure guidelines are followed.

Measures to prevent the ignition of wildfire (for example, not parking construction vehicles over flammable vegetation) will be included as part of the training program for protection of natural resources and implemented by the Contractor. Training will include information on the habitat of the rattlesnake and its normal behavior, and provide guidance for movement on foot or in vehicles within rattlesnake habitat. While this training is directed toward the New Mexico ridge-nosed rattlesnake, the overriding message will be that avoidance of all snakes observed on the landscape is the usual operation. The Contractor will avoid killing any snakes unless there is a particular emergency situation.

During construction, any rattlesnakes observed in the project area will be avoided and allowed to leave the area on their own. No intentional harassment of any snake is allowed by Contractor personnel except as deemed necessary by the biological monitor or in case of emergency that involves human health or life.

Individual New Mexico ridge-nosed rattlesnakes found in the immediate construction zone will be relocated by the biological monitor to a nearby safe location in accordance with accepted species handling protocols.

Northern Aplomado Falcon (*Falco femoralis septentrionalis*)

The planned action will be designed to prevent or minimize to the greatest extent practicable effects to the grasslands of the valleys near the project area where this species may nest in the future.

2.0 DESCRIPTION OF THE SPECIES AND THEIR HABITAT

2.1 JAGUAR

The jaguar was listed as an endangered species on July 22, 1997 without critical habitat (62 *Federal Register* [FR] 39147). The non-U.S. population was listed as endangered on March 30, 1972 (37 FR 6476) (USFWS 2000).

2.1.1 Distribution

The historic range of the jaguar included a wide belt from the central U.S. to central Mexico (USFWS 1997). Although the greatest abundance of jaguars occurs in tropical environments of Mexico, the range of northern populations extends into southeastern Arizona and southwestern New Mexico. Historical (i.e., pre-1950) and recent (i.e., 1990s) sightings of the jaguar in New Mexico have occurred in the Black Range and San Andres Mountains of Sierra County, the Datil Mountains of Catron County, and the Peloncillo Mountains of Hidalgo County (Menke and Hayes 2003). Jaguars can breed year round; however, reported occurrences in the U.S. are likely to be males hunting at the northern extent of their range. Figure 2-1 indicates the regional distribution of the jaguar, based upon historic and recent observations.

2.1.2 Habitat Requirements

Little is known about habitat preferences of jaguars in the northern portion of their range. Jaguars hunt a variety of prey throughout their range, and are likely to be supported in large part by javelina (*Tayassu tajacu*) and mule deer (*Odocoileus hemionus*) in the southwestern U.S. Although livestock can also provide prey, management practices such as grazing regimes can degrade habitats and reduce abundance of other prey. Factors which are thought to improve habitat suitability include low human density, proximity to water, abundant prey, and rugged terrain (Menke and Hayes 2003). Although jaguar detections over the last 10 years have

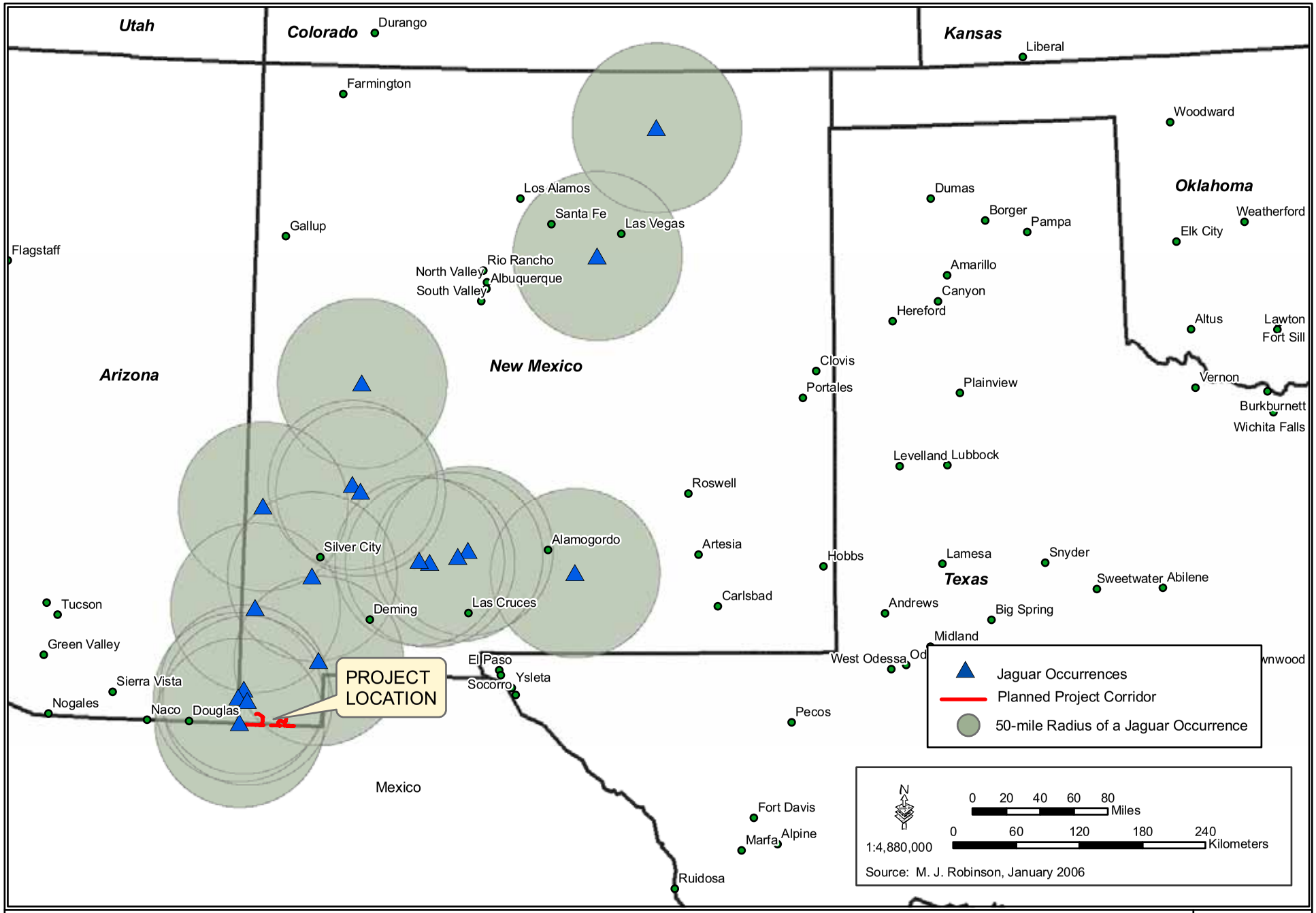

Figure 2-1: Regional Distribution of the Jaguar (*Panthera onca*) near the Project Area.

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primarily occurred in Madrean oak woodland communities, jaguars have also been documented in open mesquite grasslands and desert scrub/grasslands on the desert valley floor (USFWS 2000). Jaguars could potentially utilize habitats throughout the project area.

2.1.3 Threats

The current status of the jaguar in the action area is unknown; however, CBP assumes the species is potentially present based on recent sightings in New Mexico. Loss, fragmentation, and modification of jaguar habitat have contributed to population declines throughout much of the species' range. Roads may have direct impacts to jaguars and their habitat, including road-kill, disturbance, habitat fragmentation, changes in prey numbers or distribution, and providing increased access for legal or illegal hunting.

Illegal hunting was a primary reason for declines of the U.S. population, and continues to threaten the jaguar population in Mexico (USFWS 2000). Although large areas of jaguar habitat in Mexico are being protected, habitat loss and fragmentation continues to threaten the species in the northern portion of its range. Potential habitats in the U.S. are as extensive as those occupied by the population of jaguars in northern Sonora, Mexico. Thus jaguar habitat in the U.S. may become increasingly important if threats to jaguars and jaguar habitat in Mexico continue.

2.2 CHIRICAHUA LEOPARD FROG

The Chiricahua leopard frog was listed as an endangered species on June 13, 2002 (67 FR 40790) (USFWS 2008).

2.2.1 Distribution

The Chiricahua leopard frog was historically found in a variety of aquatic habits of southeastern Arizona, west-central and southwestern New Mexico, and northern Mexico (USFWS 2007b). In New Mexico, the majority of populations occur north of I-10 within

the Gila and San Francisco basins. Chiricahua leopard frog populations could potentially occur in smaller numbers within cattle ponds and holding tanks throughout the southwest corner of New Mexico, including sites in the project area.

The current status of the Chiricahua leopard frog in the project area is unknown; however, past survey records indicate that the species occurred in at least some suitable habitats (Figure 2-2). Surveys conducted from the mid-1980s to the present reported the Chiricahua leopard frog as absent from 85 percent of historical localities in central and southeastern Arizona (272 locations); west-central and southwestern New Mexico (182 locations); and in Mexico (34 locations) (DAPTF 2008). In 2007, there were 30 to 35 populations remaining in New Mexico, with less than 10 occurring south of Interstate 10 (DAPTF 2008). Because the Chiricahua leopard frog exhibits a life history that predisposes them to high rates of extirpation and re-colonization, absence from at least some historical sites is expected. However, numerous studies indicate that declines and extirpations of Chiricahua leopard frogs are at least in part caused by predation and possibly competition by non-native aquatic organisms. Extant populations of Chiricahua leopard frogs are primarily limited to habitats subject to drying or near drying, such as stock tanks. Although non-native competitors are largely absent from these habitats, such areas are subject to drying during droughts and, therefore, are not considered stable habitat for the species (DAPTF 2008).

2.2.2 Habitat Requirements

The Chiricahua leopard frog is known to occur in cienegas, pools, livestock tanks, lakes, reservoirs, streams, and rivers at elevations of 3,300 to 8,900 feet (USFWS 2008). Competition with non-native predators (e.g., American bullfrogs [*Rana catesbeiana*], fishes, and crustaceans) has limited the Chiricahua leopard frog to marginal habitats where these competitors are absent (USFWS 2008). The breeding season varies depending upon elevation. At higher elevations (above 5,900 feet) the breeding season occurs between May and October, while at lower, warmer elevations (below 5,900 feet) the breeding season occurs from February through June (USFWS 2008). The species requires permanent or semi-permanent pools for breeding, water characterized by low

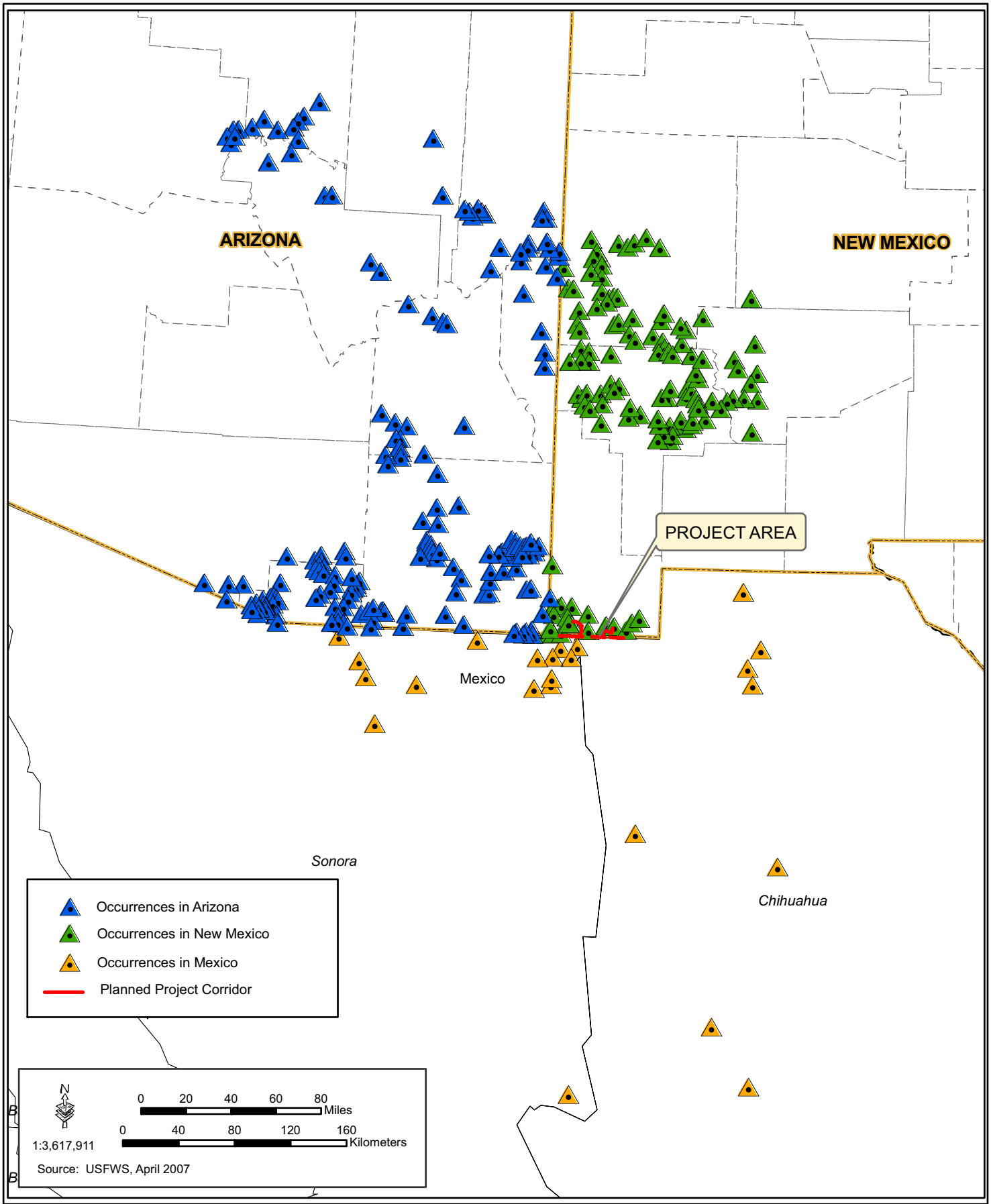

Figure 2-2: Regional Distribution of the Chiricahua Leopard Frog (*Rana chiricahuensis*) within the Project Area.

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levels of contaminants and moderate pH, and may be excluded or exhibit periodic die-offs where a pathogenic fungus is present.

2.2.3 Threats

Threats to this species include predation by non-native organisms, especially American bullfrogs, fish, and crayfish (USFWS 2008). Other factors limiting the frog's population numbers include fungal disease Chytridiomycosis; drought; floods; degradation and loss of habitat as a result of water diversions and groundwater pumping. Livestock management that degrades frog habitats, catastrophic wild fire (fire-prone upland habitats) resulting from a long history of fire suppression, mining, development, and other human activities; disruption of metapopulation dynamics; increased chance of extirpation or extinction resulting from small numbers of populations and individuals existing in dynamic environments; and environmental contamination such as runoff from mining operations and airborne contaminants from copper smelters (USFWS 2007d) are other limiting factors. Loss of Chiricahua leopard frog populations fits a pattern of global amphibian decline, suggesting other regional or global causes of decline may be important as well, such as elevated ultra-violet radiation, pesticides or other contaminants, or climate change.

2.3 MEXICAN LONG-NOSED BAT

The Mexican long-nosed bat was listed as an endangered species in 1988 with no designated critical habitat. A recovery plan was published by the USFWS in 1994 (USFWS 1994b).

2.3.1 Distribution

The Mexican long-nosed bat is a migratory species whose range includes southern New Mexico, southwest Texas and most of Mexico (USFWS 1994b, USFWS 2001). This species is endemic to Mexico but migrates north to portions of northern Mexico and the southwestern U.S. to breed and brood young.

In New Mexico, the species has been observed in the Pelloncillo, Animas, and Big Hatchet Mountains with other potential roost and foraging habitat in the Sierra Rica and Alamo Hueco Mountains in Hidalgo County, New Mexico. Population estimates for the Mexican long-nosed bat are difficult to obtain due to the lack of information on the species in Mexico such as variability in its characteristically opportunistic use of known roosts, and the lack of information regarding roost locations in New Mexico (USFWS 1994b). However, surveys of known roosts indicate that total population numbers in the U.S. are relatively small. No confirmed estimates of Mexican long-nosed bat population numbers are available for the suspected roost in the Animas Mountains. The potential distribution of the Mexican long-nosed bat and its foraging habitat within and/or near the project corridor are presented in Figure 2-3.

2.3.2 Habitat Requirements

The species is colonial and usually roosts in natural caves, but can also use mines, culverts, and hollow trees (Texas Parks and Wildlife Department [TPWD] 2008a). The use of roosts is driven by the availability of seasonally dependent forage opportunities. These bats are seasonal (April - September) residents of southeastern Arizona, and possibly extreme western Arizona (Cochise, Pima, Santa Cruz, Graham, Pinal and Maricopa counties, Arizona) (USFWS 1994b). Most births of young likely occur in May; however, there is some evidence to support the occurrence of a second birth peak in September. When young bats are old enough to fledge, adults will abandon juvenile bats and return south until the following breeding/migration season. Juveniles will abandon roosting sites in the southwestern U.S. and return to Mexico and return to breed the following year (USFWS 1994b).

Forage plants for the Mexican long-nosed bats include the nectar and fruit of night blooming cacti and agaves. Mexican long-nosed bats have been documented to travel up to 40 miles from a roost to suitable forage (USFWS 1994b).

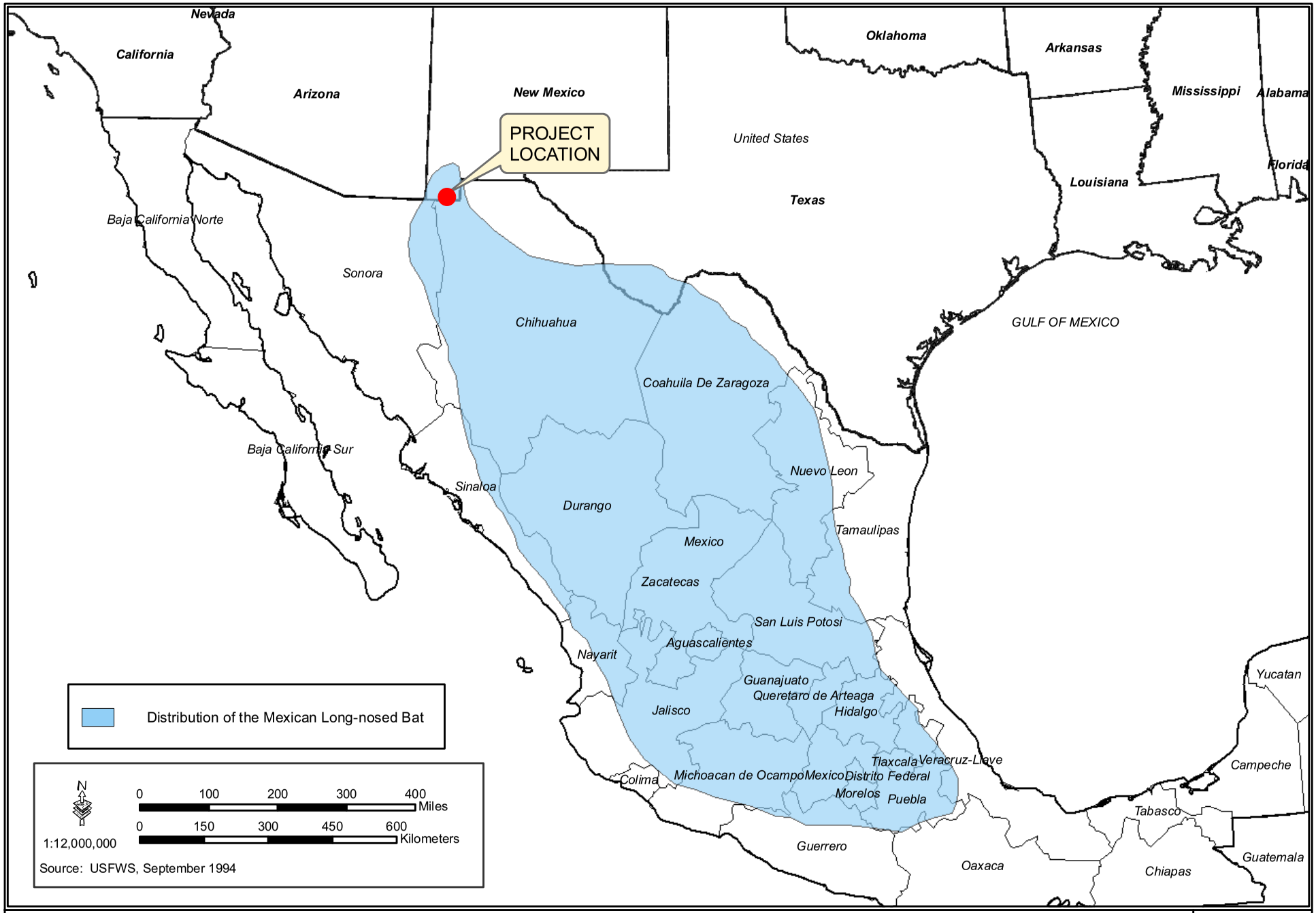

Figure 2-3: Regional Distribution of the Mexican Long-nosed Bat (*Leptonycteris nivalis*) near the Project Area.

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2.3.3 Threats

Loss of roost and foraging habitat, as well as loss of individual bats during animal control programs, particularly in Mexico has contributed to the current endangered status of the species (TPWD 2008a). Roost sites are extremely sensitive to disturbance. Smaller day roosts can be abandoned in response to very limited disturbance. The ability of the Mexican long-nosed bat to use man-made structures such as mines is not well documented. Activities that adversely affect the density and productivity of forage materials for the bat such as columnar cacti and paniculate agaves may adversely affect population numbers. Excessive harvest of agaves in Mexico, collection of cacti in the U.S., and conversion of habitat due to urban expansion, agricultural uses, livestock grazing, and other development may contribute to the decline of populations. Activities that directly or indirectly promote invasions or increased density of non-native grasses, particularly Lehmann lovegrass (*Eragrostis lehmanniana*), Mediterranean grass (*Schismus barbatus*), and species of *Bromus*, may result in increased fire frequency and intensity, which can adversely affect cactus populations, thereby affecting the regional abundance of the Mexican long-nosed bat (USFWS 1994b).

The Mexican long-nosed bat recovery plan provides protective actions needed for the recovery of the bat (USFWS 1994b). Protection of all known roost sites and food plants within a radius of 50 miles around known roosts will help prevent this species from going extinct. In addition, the protection of food resources along migratory pathways may be important to the survival of the species. Specifically, the following actions are needed for recovery:

(1) Protect known roost sites;
(2) Determine foraging needs and protect foraging habitat;
(3) Determine and control other threats and limiting factors; and
(4) Model population viability.

2.4 NORTHERN APLOMADO FALCON

The northern aplomado falcon was listed as endangered by the USFWS on February 25, 1986 (USFWS 1999). On 26 July 2006, the USFWS announced a final rule to reintroduce the northern aplomado falcon in historical habitats in southern New Mexico and Arizona (71 FR, No. 143). In August 2006, this program started with the re-introduction of 11 individuals released in south central New Mexico. Under this ruling, the northern aplomado falcon is being re-established under Section 10(j) of the ESA, and classified it as a non-essential experimental population (NEP). The geographic boundary includes all of New Mexico and Arizona population. The NEP designation does not require land managers to specifically manage for reintroduced falcons. No designated or proposed critical habitat currently exists for the falcon.

2.4.1 Distribution

Historically, northern Aplomado falcons were known to occur throughout grassland and savannah habitats along the southern Gulf of Mexico coast of Texas, along both sides of the Rio Grande, southern New Mexico, southeastern Arizona, Mexico, and as far south as Guatemala and El Salvador. The last naturally occurring pair to breed in the U.S. was recorded in New Mexico in 1952 (USFWS 2005). Since 1985, efforts to reintroduce the species into the U.S. have resulted in at least 39 breeding pairs in Texas and adjacent Taumalipas, Mexico. In 2005, the USFWS proposed the establishment of a non-essential breeding population in New Mexico and Arizona through the introduction of captive-bred falcons on private and public lands of southern New Mexico. The potential distribution of the northern aplomado falcon within and/or near the project corridor is presented in Figure 2-4.

2.4.2 Habitat

Northern Aplomado falcons occupy a variety of grassland habitats. Scattered trees or shrubs are required for hunting, roosting, and nesting, and the bird prefers to hunt where the understory consists of grasses and scattered shrubs. In New Mexico, habitat is primarily limited to open or isolated grasslands with occasional scrub trees for

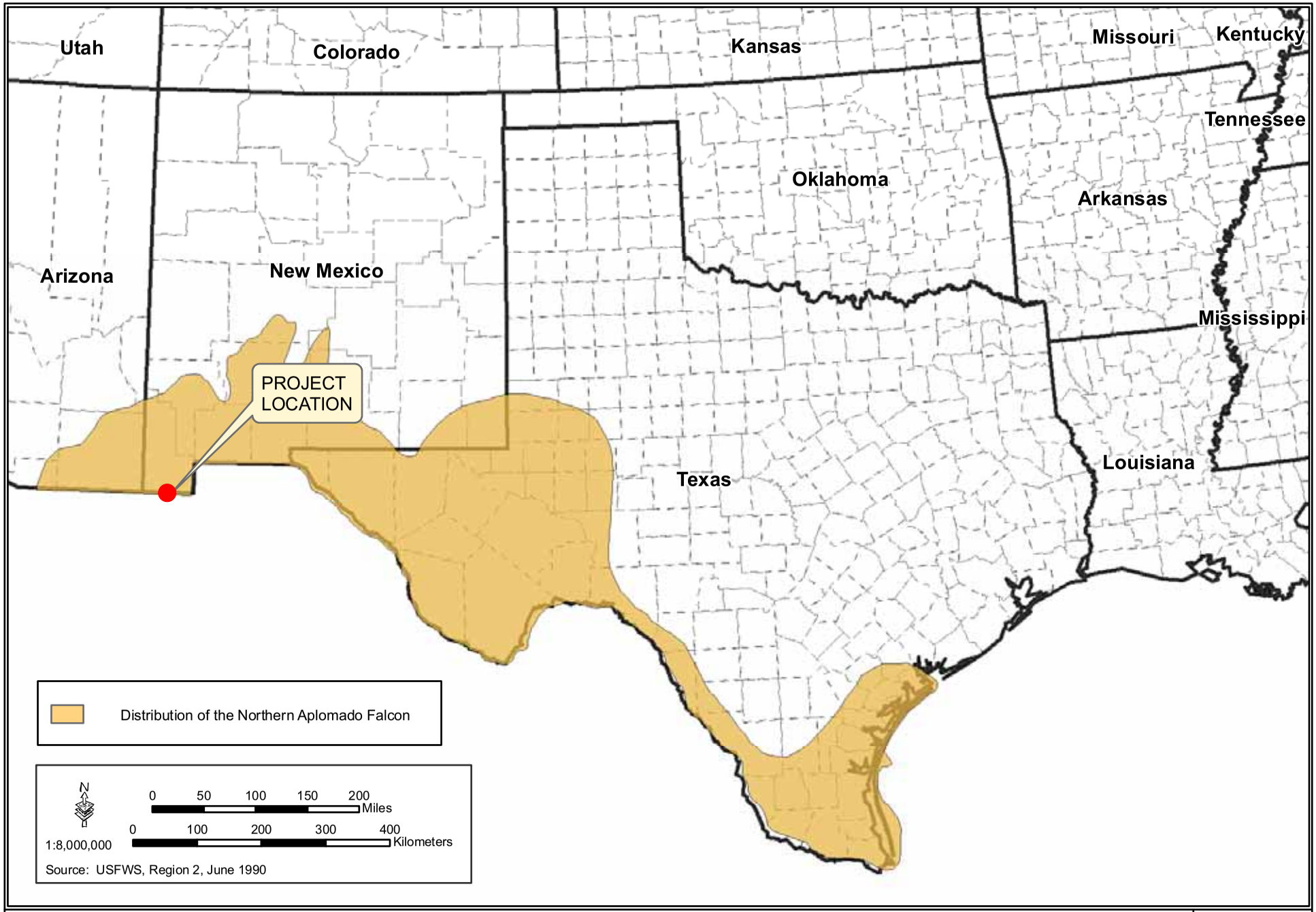

Figure 2-4: Regional Distribution of the Northern Aplomado Falcon (*Falco femoralis septentrionalis*).

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perching and nesting. In particular, yuccas (*Yucca* sp.) have been documented to be the preferred nesting platforms in New Mexico (USFWS 2005). As described earlier, the project corridor bisects a variety of Chihuahuan Desert habitat.

Northern Aplomado falcons form life-long breeding pairs. Eggs are laid between January and July and hatching occurs in April and May. Fledging usually occurs within 35 days, but young continue to feed with their parents for at least another month. Pairs often hunt cooperatively and feed on medium-sized birds, insects, rodents, bats, and reptiles (USFWS 2005).

2.4.3 Threats

Several factors of habitat loss have contributed to the decline of this species throughout its range including conversion of land for development, cattle grazing, agriculture, and water management uses. It is postulated that pesticide exposure probably had the greatest effect and is likely the most significant cause of extirpation from the U.S. Current threats include the continued use of pesticides outside the U.S., shrub encroachment throughout Chihuahuan Desert grasslands, low densities of prey in some areas, and the increasing presence of the great-horned owl (*Bubo virginianus*) which preys upon smaller birds, thus competing with the northern aplomado falcon.

Several studies and data were used to evaluate the project corridor for its potential suitability for the northern aplomado falcon. A recent study conducted by the New Mexico Cooperative Fish and Wildlife Research Unit designed to provide land managers with information that would assist them in making validation decisions regarding the predictive habitat model provided initial information. The approach was to dissect a predictive model and evaluate the components of suitability values (Young et al. 2005*).* Using the criteria described in this analysis, the relationship of habitat in the project area to local populations is considered “low suitability” habitat for the aplomado falcon.

2.5 LESSER LONG-NOSED BAT

The lesser long-nosed bat was listed as an endangered species on September 30, 1988 (USFWS 1994a).

2.5.1 Distribution

Historically, lesser long-nosed bats ranged from central Arizona and southwest New Mexico through much of Mexico to El Salvador (USFWS 1994a). Records exist for occurrences in the Peloncillo, Animas, and Big Hatchet Mountains of New Mexico. Other potential roost and foraging sites include the Sierra Rica and Alamo Heuco Mountains. Their current range is similar to historic; however, the number of occupied roost sites and the number of individuals per colony have recently declined drastically. These bats are seasonal (April - September) residents of southeastern Arizona, the bootheel of New Mexico, and possibly extreme southern Arizona (Cochise, Pima, Santa Cruz, Graham, Pinal and Maricopa counties, Arizona) (USFWS 1994a). The potential distribution of the lesser long-nosed bat and its foraging habitat within and/or near the project corridor is presented in Figure 2-5.

2.5.2 Habitat

Lesser long-nosed bats primarily inhabit desert scrub habitat in the U.S. portion of its range. In Mexico, the species occurs up into high elevation pine-oak and ponderosa pine forests. Altitudinal range is from 1,600 to 11,500 feet. These bats roost in caves, abandoned mines, and unoccupied buildings at the base of mountains where agave, saguaro, and organ pipe cacti are present. They forage at night on nectar, pollen, and fruit of agaves (*Agave* spp.), and columnar cacti such as saguaro (*Carnegiea gigantea*), and organ pipe cactus (*Stenocereus thurberi*) (USFWS 2001d).

2.5.3 Threats

Considerable evidence exists for the interdependence of *Leptonycteris* bat species and certain agaves and cacti. Excess harvest of agaves in Mexico, the collection of cacti in the U.S., and the conversion of habitat for agricultural uses, livestock grazing,

Figure 2-5: Regional Distribution of the Lesser Long-nosed Bat (*Leptonycteris curasoae yerbabuenae*) near the Project Area.

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wood-cutting, and other development may contribute to the decline of long-nosed bat populations. These bats are particularly vulnerable due to many individuals using only a small number of communal roosts (USFWS 1994a).

2.6 NEW MEXICO RIDGE-NOSED RATTLESNAKE

In January 1975 the New Mexico ridge-nosed rattlesnake was given legal protection as a threatened species with designated critical habitat by the USFWS in 1978 (USFWS 1985) and as endangered by the NMDGF in 1990 (USFWS 2002).

2.6.1 Distribution

New Mexico ridge-nosed rattlesnakes occur from southeastern Arizona and southwestern New Mexico, south through portions of Chihuahua and Sonora, Mexico to southern Durango and southwestern Zacatecas (USFWS 1985). Nearest the project corridor, populations of this species have been known to occur in the Animas Mountains of New Mexico and the adjacent Sierra San Luis of Chihuahua (Harris and Simmons 1976) and are suspected to occur in the Sonora portion of the Sierra San Luis as well (Figure 2-6).

The distribution of the New Mexico ridge-nosed rattlesnake in the Animas Mountains of southwestern New Mexico is limited to four areas of canyon bottom and adjacent slopes totaling approximately 1 to 2 square miles (USFWS 1985). This area was designated by the USFWS as critical habitat for the New Mexico ridge-nosed rattlesnake in 1978 (USFWS 1985). An additional area comprising approximately 6 square miles surrounds the critical habitat within the Animas Mountain range; however, the occurrence of this species in this area is not substantiated (USFWS 1985). Records of observations of the rattlesnake in New Mexico consist of an area approximately 2 miles long and approximately 60 to 600 feet wide, along the bottom of Indian Creek Canyon (USFWS 1985). No other populations are suspected to occur within a range that will be affected by the Planned Action.

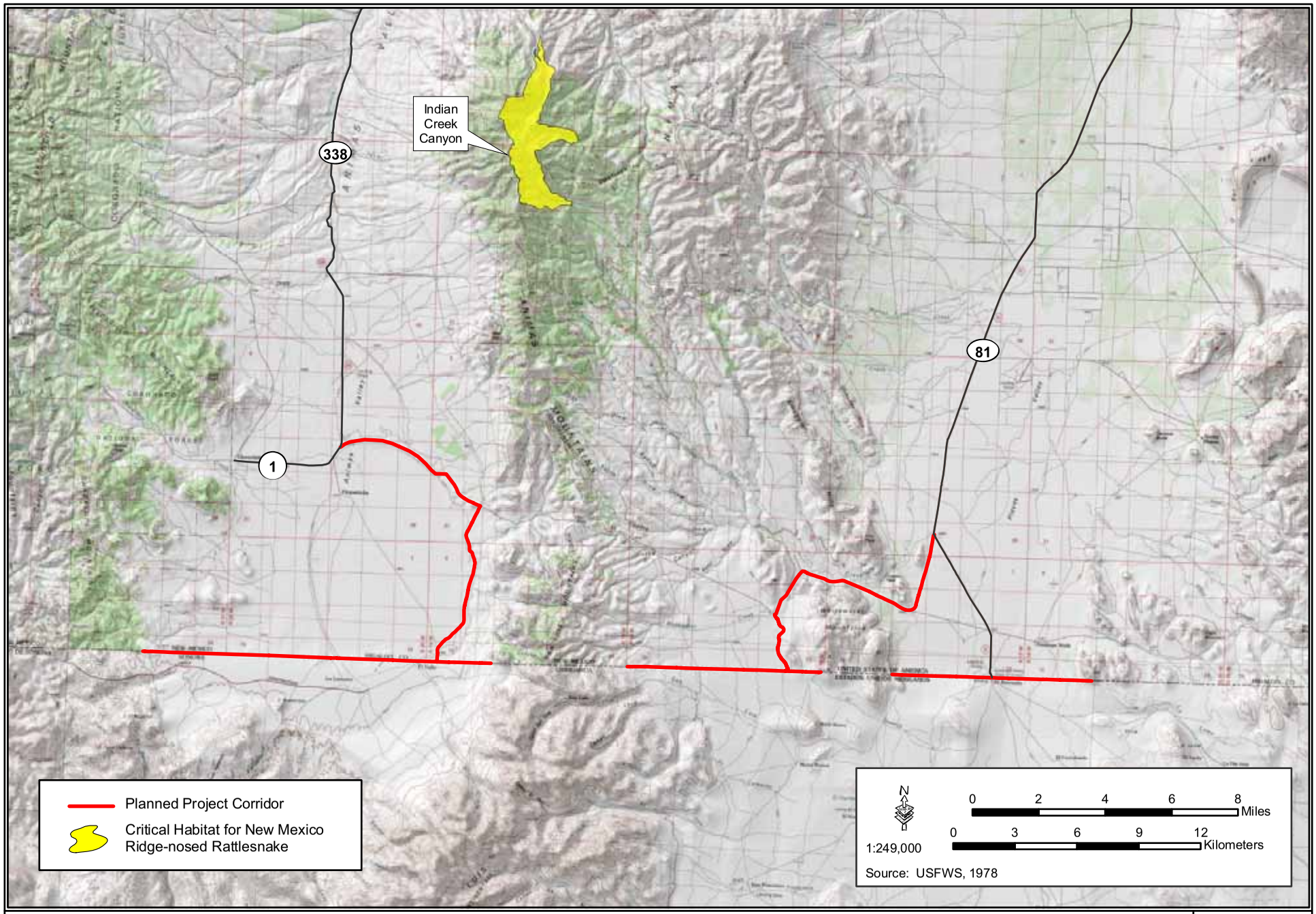

Figure 2-6: Critical Habitat for the New Mexico Ridge-nosed Rattlesnake *Crotalus willardi obsurus*) near the Project Area.

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2.6.2 Habitat

In general, New Mexico ridge-nosed rattlesnakes prefer mountainous terrain at moderate elevations (i.e., 5,350 to 9,000 feet above sea level) within the Animas Mountains. The closest known habitat is located approximately 9 miles north of the closest access road to be used as part of the Project. The species generally prefers mesic conditions occupied by pine-oak habitats in sheltered canyon bottoms containing scattered rocks and leaf litter. Deep narrow canyons that provide a greater potential for mesic conditions relative to surrounding habitats are especially important for the persistence of the species population in the northern and relatively arid portions of the rattlesnake's range (USFWS 1985).

The New Mexico ridge-nosed rattlesnake's diet consists of a broad range of prey including small mammals, birds, lizards, arthropods, and other snakes (Applegarth et al. 1980). Reproduction and birthing periods generally occur between early August through mid-October, with the majority of births occurring in mid-September (Klauber 1972). Armstrong and Murphy (1979) concluded that the greatest potential for elevated roaming and foraging activities occurs during the rainy season from July through August and coincides with a greater abundance of prey at that time.

2.6.3 Threats

Natural threats to the ridge-nosed rattlesnake include predation, starvation and pathogenic related diseases which are still not well understood (Johnson 1983). Other threats, more important to the decline in population numbers of the rattlesnake include the collection and harvesting of individuals, and alteration of habitat such as fire, cattle grazing, mining, development, and the harvesting of wood or other renewable resources occupying critical habitat areas (USFWS 1985).

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3.0 ACTION AREA

The action area includes vehicle fence and construction road activities, construction access roads, and construction staging areas. More specifically, the action area includes all TI segments, encompassing the area south of State Route 1 between border monuments 69 and 62 (excluding the San Luis Mountain range), and associated access road improvements connecting the border construction road near monument 66 and both planned access road improvements connecting State Route 81 to the border construction road between monuments 63 and 64 (i.e., HV-1 through HV-3). The action area also includes the project corridor along the U.S/Mexico border between border monuments 61 and 59 (HV-4).

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4.0 EFFECTS OF THE ACTION

The following analysis of the effects of the project on Chiricahua leopard frog, jaguar, lesser long-nosed bat, Mexican long-nosed bat, northern aplomado falcon, and New Mexico ridge-nosed rattlesnake and designated critical habitat is based on literature research, habitat surveys, professional scientific judgment, experience and coordination with USFWS.

The Planned Action will permanently impact a total of approximately 228 acres of desert grassland, conifer/mixed woodland, and riparian vegetative habitats (Table 4-1).

Table 4-1. Project Impacts to Vegetation (acres)

Section	Desert Grassland	Conifer/Mixed Woodland
HV1	24.4	0.7
HV2	84.2	2
HV3	70.5	1.2
HV4	41.6	0
Subtotal	**223.6**	**3.9**
	Total	**227.5**

4.1 JAGUAR

Potential Adverse Effects

All portions of the project corridor within HV-1 through HV-4 are located within the known habitat range of the jaguar. However, the likelihood of the jaguar occupying HV-4 is extremely limited because of the location of the Antelope Wells POE and associated vehicle traffic in relation to HV-4. Therefore, only 186 acres of suitable habitat (HV-1 through HV-3) will be permanently disturbed due to construction and maintenance of the border construction road, vehicle fence and improvements to access roads. This loss of suitable habitat would be minimal in comparison to the vast amounts of similar habitat in the region. Fragmentation has occurred in the region in

the form of the existing border road, cattle fence, and roads located south of the project corridor in Mexico (i.e., Mexico 15). Therefore, potential fragmentation impacts are considered minimal. Human presence and construction related disturbance could result in temporary avoidance of the area and affect forage opportunities for this species. However, the likelihood of the jaguar avoiding these areas once the TI is completed, is negligible. Therefore, these potential impacts are considered temporary and discountable. Additionally, areas of potential movement corridors to the west and east of the project corridor would be unaffected because the terrain is to steep for vehicle traffic. The implementation of BMPs as described in Section 1.3.1 would reduce the potential impacts to habitats and minimize disturbance. Therefore, the project may affect, but is not likely to adversely affect the jaguar.

BMPs as discussed in Section 1.3.1 will be implemented during the activities discussed in the Planned Action and it is anticipated that there will be little to no effect on the regional abundance of the jaguar. Additionally, jaguar migration routes will not be interrupted as gaps between the rails or other structures of the vehicle fence will be wide enough to allow the jaguar to pass through the fence.

Potential Beneficial Effects

Attempts to illegally cross this section of the international border are often in vehicles. Therefore, the project could benefit the jaguar by decreasing the number of illegal vehicle crossings in the project area, and subsequently decreasing the extent of human disturbance in this area.

4.2 CHIRICAHUA LEOPARD FROG

Potential Adverse Effects

The project may adversely affect the Chiricahua leopard frog. The increased ability for patrol and dragging to occur as a result of the improved access and construction roads will increase the potential adverse effects to the frog. The disturbance of soils during construction and road improvement could result in erosion of soils. If substantial soil

loss occurs, downstream aquatic habitats could be substantially impacted. Potential effects to aquatic habitats include: decreased water quality, alteration of stream substrates, and burial of riparian vegetation. Erosion features such as rills and gullies can substantially alter local hydrology and can result in stream bank erosion. During and following construction activities, the erosion of soils into these habitats could affect water quality, cover eggs, and affect egg buoyancy. Any spill of gasoline or petroleum product within 0.3 mile of potentially occupied habitats could affect groundwater and subsequently degrade water quality. The operation of heavy equipment and construction vehicles within 0.3 mile of potentially occupied habitat could result in the take of individuals. However, with the implementation of BMPs described in Section 1.3.1, these adverse effects would be avoided or minimized. No hazardous materials will be stored within 0.3 mile of Chiricahua leopard frog habitat or locations of known occurrences.

Potential Beneficial Effects

Similar types of beneficial effects would be expected for the Chiricahua leopard frog as those that are discussed for the jaguar.

4.3 MEXICAN AND LESSER LONG-NOSED BATS

Potential Adverse Effects

The project may affect, but is not likely to adversely affect the Mexican and lesser long-nosed bats. Because the locations of potential roosts are unknown, it is assumed that they could occur within 5 miles of construction activities. However, impacts to roosting bats are not expected to occur, since construction activities are scheduled to begin in mid-September, which is outside of the bat occupancy season.

Potential impacts to foraging areas may occur from the disturbance of soils which could promote the expansion of non-native invasive species. However, the implementation of BMPs would minimize any impacts related to invasive species.

Vegetation removal can result in the immediate loss of foraging habitat within HV-1, HV-2, and HV-3 segments. Approximately 86 agaves could be removed as a result of the Project; however, BMPs discussed in Section 1.3.1 would offset this loss of potential foraging habitat resulting in a negligible impact to the bats foraging opportunities. Regardless of the BMPs to be implemented, due to the minimal amount of agaves removed in relation to the vast amounts that occur in the project region, this Project would result in discountable impacts to foraging habitat.

Potential Beneficial Effects

Similar types of beneficial effects regarding vehicle traffic would be expected for the Mexican and lesser long-nosed bats as is discussed for the jaguar. Furthermore, abandoned man-made structures utilized as bat roosting sites may be retained as a safe haven for bats if the opportunity for illegal aliens (IA) to utilize abandoned man-made structures as a temporary shelter is minimized by the Planned Action.

4.4 NORTHERN APLOMADO FALCON

Potential Adverse Effects

The project may affect, but is not likely to adversely affect the northern aplomado falcon. There are no known nests occurring within or near the project footprint and no documented observations of the falcon have been recorded in the vicinity of the Project area. Based on results from a survey of the project area conducted by GSRC biologists in June 2008, potential roosting sites were observed; however, no individuals or signs of individuals (i.e., nests) were observed within or near the project footprint. Impacts to the northern aplomado falcon could occur through the removal of potential foraging and nesting habitat. The implementation of BMPs discussed in Section 1.3.1 would minimize potential impacts of foraging habitat of the northern aplomado falcon.

Potential Beneficial Effects

Although no falcon individuals or signs of falcon activity were observed, during the most recent field survey of the project area (June 2008) grassland habitat most likely

containing an array of potential prey to satisfy dietary habitat requirements was observed. By implementing the Planned Action and reducing the amount of illegal vehicle traffic through this area, which could be potentially utilized by the falcon, disturbance to falcon habitat will be reduced. Thus, long term benefits to the aplomado falcon are expected to occur.

4.5 NEW MEXICO RIDGE-NOSED RATTLESNAKE

Potential Adverse Effects

The project may affect but is not likely to adversely affect the New Mexico ridge-nosed rattlesnake. Alteration of habitat by fire, cattle grazing, mining, development, and the harvesting of wood or other renewable resources in critical habitat areas has been documented to indirectly affect the potential for sustained population numbers of the rattlesnake (USFWS 1985). Currently, no New Mexico ridge-nosed rattlesnake Critical Habitat or suitable habitat exists within areas directly affected by the Project. However, Critical habitat does exist approximately 9 miles northeast of the Project. The only potential direct impact which could negatively affect the rattlesnake would be from construction vehicles running over individuals. The increased ability for patrols to occur as a result of the improved access roads will increase the potential for vehicle strikes as well. However, the likelihood of a construction or patrol vehicle strike on an individual is extremely limited as the access and construction roads are very distant (approximately 9 miles) from known areas of rattlesnake populations. The implementation of BMPs discussed in Section 1.3.1 would minimize potential impacts to New Mexico ridge-nosed rattlesnake and associated rattlesnake foraging habitat.

Potential Beneficial Effects

Critical habitat for the New Mexico ridge-nosed rattlesnake as well as known populations of individuals would benefit from implementation of the Planned Action by reducing impacts from IA vehicular traffic.

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5.0 DETERMINATION OF EFFECT

Table 5-1 summarizes the Federally listed species and critical habitat that are known to occur near the U.S.-Mexico international border in Hidalgo County, New Mexico, thus having the potential to occur within or near the project corridor. There are 11 Federally listed taxa and one candidate species that are known to occur or have the potential to occur within or adjacent to the project corridor. Additionally, none of the listed species have designated critical habitat in the within the project corridor.

Of the species listed in Table 5-1, the Chiricahua leopard frog may be adversely affected. The project may affect, but is not likely to adversely affect the jaguar, Mexican long-nosed bat, lesser long-nosed bat, northern aplomado falcon, and New Mexico ridge-nosed rattlesnake. Through extensive literature research, past experience, coordination with USFWS and NMDGF, and professional scientific opinion, it has been determined that the project will have no effect on the loach minnow, spikedace, southwestern willow flycatcher, Mexican spotted owl, yellow-billed cuckoo, or the Mexican grey wolf.

Table 5-1. Federally Listed Species and Critical Habitats Potentially Occurring within the Project Area and the Determination of Effects

Species	Listing/Critical Habitat Designated	Determination of Effect		
		HV1-HV2	HV3	HV-4
FISH				
Loach minnow *Tiaroga cobitis*	Threatened	NE	NE	NE
Loach minnow Critical Habitat	Proposed	NE	NE	NE
Spikedace *Meda fulgida*	Threatened	NE	NE	NE
Spikedace Critical Habitat	Proposed	NE	NE	NE
REPTILES AND AMPHIBIANS				
Chiricahua leopard frog *Rana chiricahuensis*	Threatened	MAA	MAA	NE
New Mexico ridge-nosed rattlesnake *Crotalus willardi obscurus*	Threatened	NLAA	NLAA	NE
New Mexico ridge-nosed rattlesnake Critical Habitat	Final	NE	NE	NE
BIRDS				
Mexican spotted owl *Strix occidentalis lucida*	Threatened	NE	NE	NE
Mexican spotted owl Critical Habitat	Final	NE	NE	NE
Northern aplomado falcon* *Falco femoralis septentrionalis*	Endangered	NLAA	NLAA	NLAA
Southwestern willow flycatcher *Empidonax traillii extimus*	Endangered	NE	NE	NE
Southwestern willow flycatcher Critical Habitat	Final	NE	NE	NE
Yellow-billed cuckoo *Coccyzus americanus*	Candidate	NE	NE	NE
MAMMALS				
Jaguar *Panthera onca*	Endangered	NLAA	NLAA	NE
Lesser long-nosed bat *Leptonycteris cuasoae yerbabuenae*	Endangered	NLAA	NLAA	NE
Mexican grey wolf *Canis lupus baileyi*	Endangered	NE	NE	NE
Mexican long-nosed bat *Leptonycteris nivalis*	Endangered	NLAA	NLAA	NE

MAA – May Adversely Affect NLAA – Not Likely to Adversely Affect NE – No Effect
* – Experimental Population

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APPENDIX C
Air Emissions Calculations

CALCULATION SHEET-COMBUSTABLE EMISSIONS-HILDAGO COUNTY

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	12	90	648000
Diesel Road Compactors	2	100	12	90	216000
Diesel Dump Truck	2	300	12	90	648000
Diesel Excavator	2	300	12	90	648000
Diesel Hole Trenchers	2	175	12	90	378000
Diesel Bore/Drill Rigs	2	300	12	90	648000
Diesel Cement & Mortar Mixers	2	300	12	90	648000
Diesel Cranes	2	175	12	90	378000
Diesel Graders	2	300	12	90	648000
Diesel Tractors/Loaders/Backhoes	2	100	12	90	216000
Diesel Bull Dozers	2	300	12	90	648000
Diesel Front End Loaders	2	300	12	90	648000
Diesel Fork Lifts	2	100	12	90	216000
Diesel Generator Set	12	40	12	90	518400

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-HILDAGO COUNTY

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	0.314	1.478	3.920	0.293	0.286	0.528	382.755
Diesel Road Paver	0.088	0.352	1.166	0.081	0.079	0.176	127.633
Diesel Dump Truck	0.314	1.478	3.920	0.293	0.286	0.528	382.755
Diesel Excavator	0.243	0.928	3.285	0.229	0.221	0.528	382.970
Diesel Hole Cleaners\Trenchers	0.212	1.016	2.420	0.192	0.183	0.308	223.191
Diesel Bore/Drill Rigs	0.428	1.635	5.106	0.357	0.350	0.521	378.257
Diesel Cement & Mortar Mixers	0.436	1.657	5.199	0.343	0.336	0.521	378.257
Diesel Cranes	0.183	0.542	2.383	0.142	0.137	0.304	220.858
Diesel Graders	0.250	0.971	3.378	0.236	0.229	0.528	382.970
Diesel Tractors/Loaders/Backhoes	0.440	1.954	1.719	0.326	0.317	0.226	164.504
Diesel Bull Dozers	0.257	0.985	3.399	0.236	0.229	0.528	382.970
Diesel Front End Loaders	0.271	1.107	3.570	0.250	0.243	0.528	382.898
Diesel Aerial Lifts	0.471	1.847	2.038	0.331	0.321	0.226	164.433
Diesel Generator Set	0.691	2.148	3.411	0.417	0.406	0.463	335.511
Total Emissions	**4.600**	**18.100**	**44.913**	**3.723**	**3.621**	**5.917**	**4289.960**

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-HILDAGO COUNTY

Construction WorkerPersonal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	90	30	30	0.49	0.57	1.06
CO	12.4	15.7	120	90	30	30	4.43	5.61	10.03
NOx	0.95	1.22	120	90	30	30	0.34	0.44	0.77
PM-10	0.0052	0.0065	120	90	30	30	0.00	0.00	0.00
PM 2.5	0.0049	0.006	120	90	30	30	0.00	0.00	0.00

-

Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emisssions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	90	2	2	0.00	0.01	0.01
CO	1.32	3.21	60	90	2	2	0.02	0.04	0.05
NOx	4.97	12.6	60	90	2	2	0.06	0.15	0.21
PM-10	0.12	0.33	60	90	2	2	0.00	0.00	0.01
PM 2.5	0.13	0.36	60	90	2	2	0.00	0.00	0.01

Bi-monthly OBP Commute for Inspection									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Towers in County	Number of trucks	Total Emisssions Delivery Trk tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	1.61	120	0	0	0	-	0.00	-
CO	1.32	15.7	120	0	0	0	-	0.00	-
NOx	4.97	1.22	120	0	0	0	-	0.00	-
PM-10	0.12	0.0065	120	0	0	0	-	0.00	-
PM 2.5	0.13	0.006	120	0	0	0	-	0.00	-

Truck Emission Factor 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.

CALCULATION SHEET-FUGITIVE DUST- HILDAGO COUNTY

Fugitive Dust Emissions at New Construction Site.					
Construction Site	**Emission Factor tons/acre/month (1)**	**Total Area-Construction/month**	**Months/yr**	**Total PM-10 Emissions tns/yr**	**Total PM-2.5 (2)**
Fugitive Dust Emissions	0.11	71.75	3	23.68	4.74

1. Environmental Protection Agency (EPA) 2001. Procedures Document for National Emission Inventory, Criteria Air Pollutants 1985-1999. EPA-454/R-01-006. Office of Air Quality Planning and Standards Research Triangle Park NC 27711.

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2001).

Coastruction Site Area	**Demension (ft)**			**Total**
Proposed Prioject	**Length**	**Width**	**Units**	**Acres/month**
New Road and Vehicle Fence	**28160**	**60**	**1**	**38.79**
Access Roads	**35200**	**28**	**1**	**22.63**
Staging Areas	**300**	**300**	**5**	**10.33**
Total				**71.75**

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

	Miles	
New Road and Vehicle Fence	16.0	
Access Roads	20.0	
Assume 3 months to complete construction	3.0	months

CALCULATION SHEET-SUMMARY OF EMISSIONS-HILDAGO COUNTY

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO_2
Combustable Emissions	4.60	18.10	44.91	3.72	3.62	5.92
Construction Site-fugitive PM-10	NA	NA	NA	23.68	4.74	NA
Construction Workers Commuter & Trucking	1.07	10.09	0.98	0.01	0.01	NA
Bi-monthly Commute to Tower Site for Maintenance	0.00	0.00	0.00	0.00	0.00	NA
Total emissions	5.67	28.19	45.90	27.41	8.37	5.92
De minimis threshold	NA	NA	NA	NA	NA	NA

APPENDIX D
Threatened and Endangered Species List

Biota Information System of New Mexico

Providing New Mexico and its wildlife Year-round Excellent Service

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Database Query

Your search terms were as follows:

County Name
Hidalgo

Status
State NM: Endangered
State NM: Threatened

52 species returned.

Taxonomic Group	# Species	Taxonomic Group	# Species
Fish	3	Birds	27
Amphibians	2	Mammals	8
Reptiles	10	Molluscs	2

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

Common Name	Scientific Name	County	Status
Chub, Roundtail	Gila robusta	Hidalgo	State NM: Endangered
Minnow, Loach	Tiaroga cobitis	Hidalgo	State NM: Threatened
Spikedace	Meda fulgida	Hidalgo	State NM: Endangered
Frog, Leopard, Lowland	Rana yavapaiensis	Hidalgo	State NM: Endangered
Toad, Desert, Sonoran	Bufo alvarius	Hidalgo	State NM: Threatened
Lizard, Bunchgrass, Slevin's	Sceloporus slevini	Hidalgo	State NM: Threatened
Monster, Gila, Reticulate	Heloderma suspectum suspectum (NM,AZ)	Hidalgo	State NM: Endangered
Rattlesnake, Ridgenose, NM	Crotalus willardi obscurus (NM)	Hidalgo	State NM: Endangered
Rattlesnake, Rock, Mottled	Crotalus lepidus lepidus (NM)	Hidalgo	State NM: Threatened
Skink, Mountain	Eumeces callicephalus	Hidalgo	State NM: Threatened
Snake, Garter, Mexican	Thamnophis eques megalops (NM)	Hidalgo	State NM: Endangered
Snake, Garter, Narrowhead	Thamnophis rufipunctatus rufipunctatus (NM)	Hidalgo	State NM: Threatened
Snake, Rat, Green	Senticolis triaspis intermedia (NM,AZ)	Hidalgo	State NM: Threatened
Whiptail, Gray-checkered	Aspidoscelis dixoni	Hidalgo	State NM: Endangered
Whiptail, Spotted, Canyon	Aspidoscelis burti stictogrammus (NM,AZ);xanthonotus (AZ)	Hidalgo	State NM: Threatened
Tyrannulet, Beardless, N.	Camptostoma imberbe	Hidalgo	State NM: Endangered

	ridgwayi (NM)		
Black-Hawk, Common	Buteogallus anthracinus anthracinus (NM)	Hidalgo	State NM: Threatened
Bunting, Varied	Passerina versicolor versicolor (NM);dickeyae (NM)	Hidalgo	State NM: Threatened
Cormorant, Neotropic	Phalacrocorax brasilianus	Hidalgo	State NM: Threatened
Eagle, Bald	Haliaeetus leucocephalus alascanus (NM)	Hidalgo	State NM: Threatened
Falcon, Aplomado	Falco femoralis septentrionalis (NM)	Hidalgo	State NM: Endangered
Falcon, Peregrine	Falco peregrinus anatum	Hidalgo	State NM: Threatened
Falcon, Peregrine, Arctic	Falco peregrinus tundrius	Hidalgo	State NM: Threatened
Flycatcher, Willow, SW.	Empidonax traillii extimus	Hidalgo	State NM: Endangered
Ground-dove, Common	Columbina passerina pallescens (NM)	Hidalgo	State NM: Endangered
Hummingbird, Broad-billed	Cynanthus latirostris magicus (NM)	Hidalgo	State NM: Threatened
Hummingbird, Costa's	Calypte costae	Hidalgo	State NM: Threatened
Hummingbird, Lucifer	Calothorax lucifer	Hidalgo	State NM: Threatened
Hummingbird, Violet-crowned	Amazilia violiceps ellioti (NM)	Hidalgo	State NM: Threatened
Hummingbird, White-eared	Hylocharis leucotis borealis (NM)	Hidalgo	State NM: Threatened
Junco, Yellow-eyed	Junco phaeonotus palliatus (NM)	Hidalgo	State NM: Threatened
Kingbird, Thick-billed	Tyrannus crassirostris	Hidalgo	State NM: Endangered
Nightjar, Buff-collared	Caprimulgus ridgwayi ridgwayi (NM)	Hidalgo	State NM: Endangered
Owl, Screech, Whiskered	Otus trichopsis asperus (NM)	Hidalgo	State NM: Threatened
Sparrow, Baird's	Ammodramus bairdii	Hidalgo	State NM: Threatened
Sparrow, Grasshopper, AZ	Ammodramus savannarum ammolegus (NM,AZ)	Hidalgo	State NM: Endangered
Towhee, Abert's	Pipilo aberti aberti (NM)	Hidalgo	State NM: Threatened
Trogon, Elegant	Trogon elegans canescens (NM)	Hidalgo	State NM: Endangered
Turkey, Wild, Gould's	Meleagris gallopavo mexicana (NM,AZ)	Hidalgo	State NM: Threatened
Vireo, Bell's	Vireo bellii arizonae (NM,AZ);medius (NM)	Hidalgo	State NM: Threatened
Vireo, Gray	Vireo vicinior	Hidalgo	State NM: Threatened
Woodpecker, Gila	Melanerpes uropygialis uropygialis (NM)	Hidalgo	State NM: Threatened
Bat, Long-nosed, Mexican	Leptonycteris nivalis	Hidalgo	State NM: Endangered
Bat, Long-nosed, Southern	Leptonycteris curasoae yerbabuenae (NM,AZ)	Hidalgo	State NM: Threatened
Bat, Yellow, Western	Lasiurus xanthinus	Hidalgo	State NM: Threatened
Gopher, Pocket, Southern	Thomomys umbrinus emotus	Hidalgo	State NM: Threatened

	(NM)		
Rabbit, Jack, White-sided	Lepus callotis gaillardi (NM)	Hidalgo	State NM: Threatened
Sheep, Bighorn, Desert	Ovis canadensis mexicana (endangered pops)	Hidalgo	State NM: Endangered
Shrew, Arizona	Sorex arizonae	Hidalgo	State NM: Endangered
Wolf, Gray, Mexican	Canis lupus baileyi (NM,AZ)	Hidalgo	State NM: Endangered
Woodlandsnail, Hacheta Grande	Ashmunella hebardi	Hidalgo	State NM: Threatened
Snail, Snaggletooth, Shortneck	Gastrocopta dalliana dalliana (NM)	Hidalgo	State NM: Threatened

Close Window

← *continued from front cover*

U.S.	United States
USACE	United States Army Corps of Engineers
USBP	United States Border Patrol
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USIBWC	United States Section, International Boundary Water Commission
WUS	Waters of the U.S.