

***SECTION 3.0***  
***ENVIRONMENTAL BASELINE AND EVALUATION***





## 3.0 ENVIRONMENTAL BASELINE AND EVALUATION

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### 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
<b>Total</b>	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**

<b>Pollutant</b>	<b>Total (tons/year)</b>	<b><i>de minimis</i> Thresholds (tons/year)</b>
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 acre-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

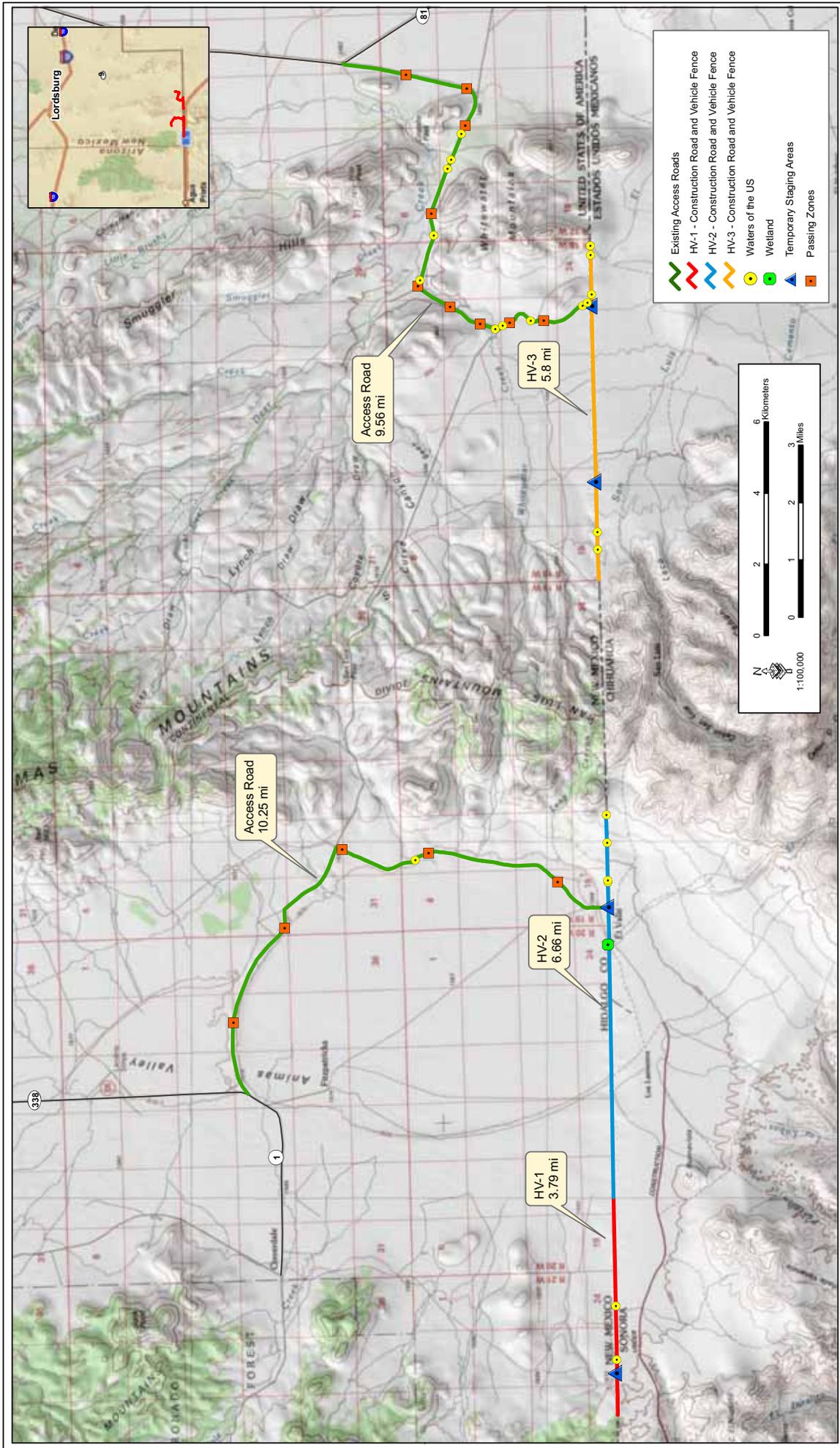


Figure 3-1: Waters of the US

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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 (*Dasyllirion 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 (*Prosopis 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 hooved 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	<i>Columbina inca</i>
	Mourning dove	<i>Zenaida macroura</i>
Falcon	Prairie falcon	<i>Falco mexicanus</i>
	American kestrel	<i>Falco sparverius</i>
Flycatcher	Black phoebe	<i>Sayornis nigricans</i>
	Say's phoebe	<i>Sayornis saya</i>
	Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Gnatcatcher	Black-tailed gnatcatcher	<i>Polioptila melanura</i>
	Blue-gray gnatcatcher	<i>Polioptila caerulea</i>
Quail	Gambel's quail	<i>Callipepla gambelii</i>
	Scaled quail	<i>Callipepla squamata</i>

Table 3-3, continued

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

**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
<b>Mexican gray wolf</b> <i>Canis lupus baileyi</i>	Endangered*	No – No suitable habitat occurs within or near the Project corridor.
<b>Northern aplomado falcon</b> <i>Falco femoralis septentrionalis</i>	Endangered*	Yes – Grassland habitat exist within the Project corridor.
<b>Jaguar</b> <i>Panthera onca</i>	Endangered	Yes – Suitable habitat occurs within or near the Project corridor.
<b>Southwestern willow flycatcher</b> <i>Empidonax traillii extimus</i>	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
<b>Lesser long-nosed Bat</b> <i>Leptonycteris curasoae yerbabuena</i>	Endangered	Yes – Suitable foraging habitat occurs within or near the Project corridor.
<b>Mexican long-nosed bat</b> <i>Leptonycteris nivalis</i>	Endangered	Yes – Suitable foraging habitat occurs within or near the Project corridor.
<b>Spike dace</b> <i>Meda fulgida</i>	Threatened	No – No suitable habitat occurs within or near the Project corridor.
<b>Mexican spotted owl</b> <i>Strix occidentalis lucida</i>	Threatened	No – No suitable habitat occurs within or near the Project corridor.
<b>New Mexico ridge-nosed rattlesnake</b> <i>Crotalus willardi obscurus</i>	Threatened	Yes – Suitable habitat occurs within or near the Project corridor.
<b>Loach minnow</b> <i>Tiaroga cobitis</i>	Threatened	No – No suitable habitat occurs within or near the Project corridor.
<b>Chiricahua leopard frog</b> <i>Rana chiricahuensis</i>	Threatened	Yes – Suitable habitat occurs within or near the Project corridor.
<b>Yellow-billed cuckoo</b> <i>Coccyzus americanus</i>	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 managers 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**

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

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 Chihuahuan 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 than 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 through 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.