

MAY 2002

**FINAL REPORT**

**ENVIRONMENTAL ASSESSMENT  
FOR OPERATION DESERT GRIP  
USBP TUCSON AND YUMA SECTOR, ARIZONA**



**IMMIGRATION AND NATURALIZATION SERVICE  
WASHINGTON, D.C.**

## **FINDING OF NO SIGNIFICANT IMPACT**

### **Operation Desert Grip USBP Tucson and Yuma Sectors, Arizona**

border of the U.S. The EA for the proposed action is tiered from that PEIS in accordance with the President's Council on Environmental Quality's Regulations for Implementing the National Environmental Policy Act of 1969.

#### **ENVIRONMENTAL CONSEQUENCES:**

No significant adverse affects to the natural or human environment are expected upon implementation of the proposed action. In addition, no adverse effects to cultural resources are expected. By reducing the number of UDAs within these areas, adverse effects to protected species would be reduced. Rescue efforts may affect Federally protected threatened or endangered species or their habitat, specifically the Sonoran pronghorn, depending upon the time, duration, and location of the rescue mission. These potential effects are currently being coordinated through the U.S. Fish and Wildlife Service through the emergency consultation process, as specified in Section 7 of the Endangered Species Act.

#### **ENVIRONMENTAL DESIGN MEASURES:**

In accordance with the emergency consultation, conducted under Section 7 of the ESA for this operation, the USBP and USFWS have agreed to implement the following measures minimize potential impacts to threatened and endangered species:

1. There should be no additional non-emergency helicopter patrols/missions as a result of this action and existing helicopter missions should not be expanded to include routine (mail delivery, supplies, breaks, etc.) landings at the trailers by USBP helicopters to minimize disturbance to the pronghorn;
2. All USBP vehicles should stay on established roads when possible;
3. The number of ground personnel and vehicles should be kept to a minimum;
4. Removal or destruction of vegetation should be minimized to the maximum extent possible;
5. At the completion of the operation, all trailers and other material will be removed, impacted areas will be revegetated and returned to as natural conditions as possible;
6. USBP will provide \$25,000 for support of placement and monitoring of temporary waters for the Sonoran pronghorn on the refuge and adjacent Federal lands to partially mitigate for the impacts of this action and to potentially draw affected animals away from the action area; and

## FINDING OF NO SIGNIFICANT IMPACT

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7. USBP will provide \$25,000 for quantification and monitoring of resource damage from past, current, and future UDA and drug smuggler activities, and responses to those actions by Federal law enforcement entities, and
8. To assist refuge staff in developing improved documentation of monthly law enforcement actions by USBP on the refuge through use of a standardized reporting system.

In addition, the USBP will: minimize loss of vegetation, by trimming vegetation along roadsides rather than removing the entire plant; require vehicles to utilize road pullouts or other such disturbed areas; and consider the possibility of revegetative efforts. Other issues include properly maintaining all vehicles, generators, and other equipment to ensure that air emissions are within the design standards of the equipment

Based upon the results of the EA and the environmental design measures to be incorporated as part of the proposed action, it has been concluded that the proposed action will not have a significant adverse effect on the environment.



Rufus F. Johnson, Acting Director  
INS Headquarters Facilities & Engineering Division

5/7/02  
Date

**ENVIRONMENTAL ASSESSMENT  
FOR OPERATION DESERT GRIP  
USBP TUCSON AND YUMA SECTOR, ARIZONA**

**May 2002**

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## ABSTRACT

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PROPOSED ACTION:	The proposed action would include the temporary placement of two trailers within an area of high undocumented alien (UDA) and drug trafficking crossings along the US/Mexico border. During the operation five agents would be stationed at the trailers 24-hours, seven days.
PURPOSE AND NEED FOR THE PROPOSED ACTION:	The primary purpose of the proposed action is to assist in identifying and rescuing UDAs and illegal drug traffickers who may be at risk of dying due to overexposure along the U.S./Mexico border within the U.S. Border Patrol (USBP) Tucson and Yuma Sectors' Area of Operations (AO). A secondary purpose of the operation is to reduce illegal immigration and drug trafficking along the border by increasing the USBP's presence in these remote areas.
ALTERNATIVES TO THE PROPOSED ACTION:	Alternatives addressed in the EA include the no action and proposed action described above. The no action alternative would not enhance the USBP mission to deter the UDAs from entering the U.S. and would thus, indirectly place more migrants and/or USBP agents at risk. Of the alternatives considered, the proposed action would be the most cost-efficient and strategically effective approach to ensuring the USBP agents' and illegal entrants' health and safety.
ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION:	No significant adverse affects to the natural or human environment are expected upon implementation of the proposed action. Rescue efforts may affect Federally protected threatened or endangered species or habitats, specifically the Sonoran pronghorn, depending upon the time, duration, and location of the rescue mission.
CONCLUSIONS:	Based upon the results of the EA and the environmental design measures to be incorporated as part of the proposed action, it has been concluded that the proposed action will not have a significant adverse effect on the environment.

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**SECTION 1.0**  
**INTRODUCTION**



## **1.0 INTRODUCTION**

This Environmental Assessment (EA) addresses the potential effects, beneficial and adverse, of the Immigration and Naturalization Service (INS) and U.S. Border Patrol (USBP) Operation Desert Grip. The INS is a Federal Agency within the U.S. Department of Justice (DOJ) that administers the nation's immigration laws.

Operation Desert Grip is a joint effort to include Yuma Sector/Wellton Station & Yuma Sector Border Patrol Search, Trauma and Rescue (BORSTAR) team and Tucson Sector/Ajo Station utilizing necessary manpower resources, overtime funding and other available resources to reduce the number of undocumented alien (UDA) deaths in Arizona's western desert. Almost 40 deaths occurred from February to June 2000, creating an emergency situation that required aircraft and personnel to be immediately detailed to the Tucson Sector. Near record temperatures in the summer of 2001 caused even more deaths. Operation Desert Grip is proposed to commence 5 May 2002 at 1200 hours and continue indefinitely. The operational priorities and goals for this mission are to deter illegal crossings into the U.S. from Mexico in this area in order to prevent those who attempt illegal entry into the U.S. from dying in the desert. Emphasis will be placed on the Los Vidrios Trail near Monument 179 and Davidson Canyon area near Monument 185. Deterrence of illegal entry in these areas will be accomplished through the 24-hour a day, seven days a week presence of Border Patrol enforcement personnel at the major points of illegal entry in those areas. With a Border Patrol presence at these major points of illegal entry, this operation will serve to significantly enhance the USBP's ability to save lives and rescue those in need before it is tragic. All UDA smugglers (coyotes) arrested while entering through this area will be prosecuted to the full extent of the law, and all smuggling vehicles will be seized. Operation Desert Grip will benefit other entities as well, including U.S. Fish and Wildlife Service's (USFWS) Cabeza Prieta National Wildlife Refuge and the National Park Services's (NPS) Organ Pipe National Monument by deterring and preventing entry of the destructive drive-through traffic and trespassers currently experienced within these areas.

### **1.1 Background**

#### **1.1.1 INS Organization**

The INS has the responsibility to regulate and control immigration into the United States. In 1924, the U.S. Congress created the USBP to be the law enforcement arm of the INS. The

USBP's primary function is to detect and deter the unlawful entry of undocumented aliens (UDA) and smuggling along the nation's land borders and between the ports-of-entry (POE). With the increase in illegal drug trafficking, the USBP also has become the leader for drug interdiction between land and POEs. Since 1980, an average of 150,000 immigrants have been naturalized every year. At the same time, however, illegal aliens have become a significant issue. INS apprehension rates are currently averaging more than 1.5 million illegal aliens throughout the country. The INS estimates that there are currently seven to nine million illegal aliens in the United States. However, other studies have indicated higher numbers, closer to 10 million.

### **1.1.3 Regulatory Authority**

The primary sources of authority granted to officers and agents of the INS are the Immigration and Nationality Act (INA), found in Title 8 of the United States Code (8 U.S.C.), and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, primarily those found in Title 8 of the Code of Federal Regulations (8 C.F.R. Section 287), judicial decisions, and administrative decisions of the Board of Immigration Appeals.

Subject to constitutional limitations, INS officers and agents may exercise the authority granted to them in the Immigration and Nationality Act. The statutory provisions related to enforcement authority are found in Sections 287(a), 287(b), 287(c), and 287(e) [8 U.S.C. § 1357(a,b,c,e)]; Section 235(a) (8 U.S.C. § 1225); Sections 274(b) and 274(c) [8 U.S.C. § 1324(b,c)]; Section 274A (8 U.S.C. § 1324a); and Section 274C(8 U.S.C. § 1324c) of the INA. Other statutory sources of authority are Title 18 of the United States Code (18 U.S.C.), which has several provisions that specifically relate to enforcement of the immigration and nationality laws; Title 19 [19 U.S.C. 1401 § (i)], relating to Customs cross-designation of INS officers and agents; and Title 21(21 U.S.C. § 878), relating to Drug Enforcement Agency cross-designation of INS officers and agents.

## **1.2 Purpose and Need**

During one 24-hour period during the week of 24 March 2002, illegal vehicle entries through this area totaled 29. On 27 March 2002, Wellton Agents apprehended a group of 20 UDAs north of El Camino Del Diablo on the Los Vidrios Trail. In this group were 18 UDAs from Mexico and 2 from Egypt. On 28 March 2002, Wellton Agents located tire tracks of three

other vehicles that had entered illegally at this same location, and had returned back to Mexico. Along with these three vehicles, agents located tracks from an all-terrain vehicle (ATV) that had paralleled these vehicles on the edge of the Camino Del Diablo. These arrests and returns to Mexico were all near the Vidrios Trail area.

During the months of February through April, the USBP Ajo Station also began witnessing a surge of illegal entries into these areas. Because of the extreme remoteness of these areas, USBP agents can only patrol the area occasionally and, thus, there was no way to have predicted the scope or timing of this increase in illegal entries. Smugglers will often deviate from established administrative roads and abandon disabled vehicles without regard to environmentally sensitive areas. The environmental damage attributed to these illegal vehicle entries has been documented in the photographs in Appendix A.

Current USBP operations within this area are minimal due to distance, time involved to drive to this area, conditions of the roads into the area, and the limited manpower experienced by the Wellton and Ajo BP Stations. As a result, within the past several years this area has become the route of choice for alien and narcotics smugglers for their illegal entry. Within the last three years, walking entries through this area have increased 206 percent while drive through traffic has increased 318 percent. Without a 24/7 presence of USBP operations in this area, this illegal traffic will continue to increase and the probability of deaths and rescue operations will also increase.

The majority of the vehicles that enter through this area are old and in extremely poor condition. Many of these vehicles become disabled and fail to transit this harsh desert area, forcing the occupants to walk. Individuals that are apprehended and/or rescued from these vehicles are found to have brought very little water or any other life sustaining provision. The 20 illegal aliens apprehended on 27 March 2002 brought two gallons of water for the entire group.

Walking groups entering through this area number as many as 60 in a single group, and walking from the border, they must cross 50 to 70 miles of desert to reach the perceived safety of Interstate 8. Many of these unknowing travelers have been ill-prepared for this distant walk, and have been extremely fortunate that Yuma Sector Air Operations as well as Wellton and Ajo USBP ground units were able to locate them before they perished.

This area is described as low desert, flat terrain, covered with sand and rock, and sparsely scattered vegetation. Very little water can be located in this area, and if located is generally unfit for human consumption. There are low hills and high, rock-covered mountains scattered along the traveled routes used by these UDAs. These hills and mountains can provide observation and cover advantage for patrol units. Vehicle and seismic sensing devices are strategically placed within this area, and provide a notification to patrol units of illegal activity, so that the patrol units can attempt to respond in a timely manner. Due to the long driving distance of up to 5 to 6 hours, however, the agents' response time is often not soon enough.

This patrol area lies within the Cabeza Prieta National Wildlife Refuge (NWR). The area is designated a Wilderness area where specific environmental and ecological restrictions apply. The illegal entry of vehicles from Mexico has caused severe damage to the terrain and wildlife habitat inside the Cabeza Prieta NWR. These vehicles threaten the lives of the occupants by making this illegal entry across this desert area, and they threaten the sovereignty of our Nation's Border. The "Los Vidrios Trail" is a smuggler built road which crosses the Cabeza Prieta National Wildlife Refuge, and is an extreme example of disregard for both Immigration Law and the Wilderness Protection Act, as well as human life.

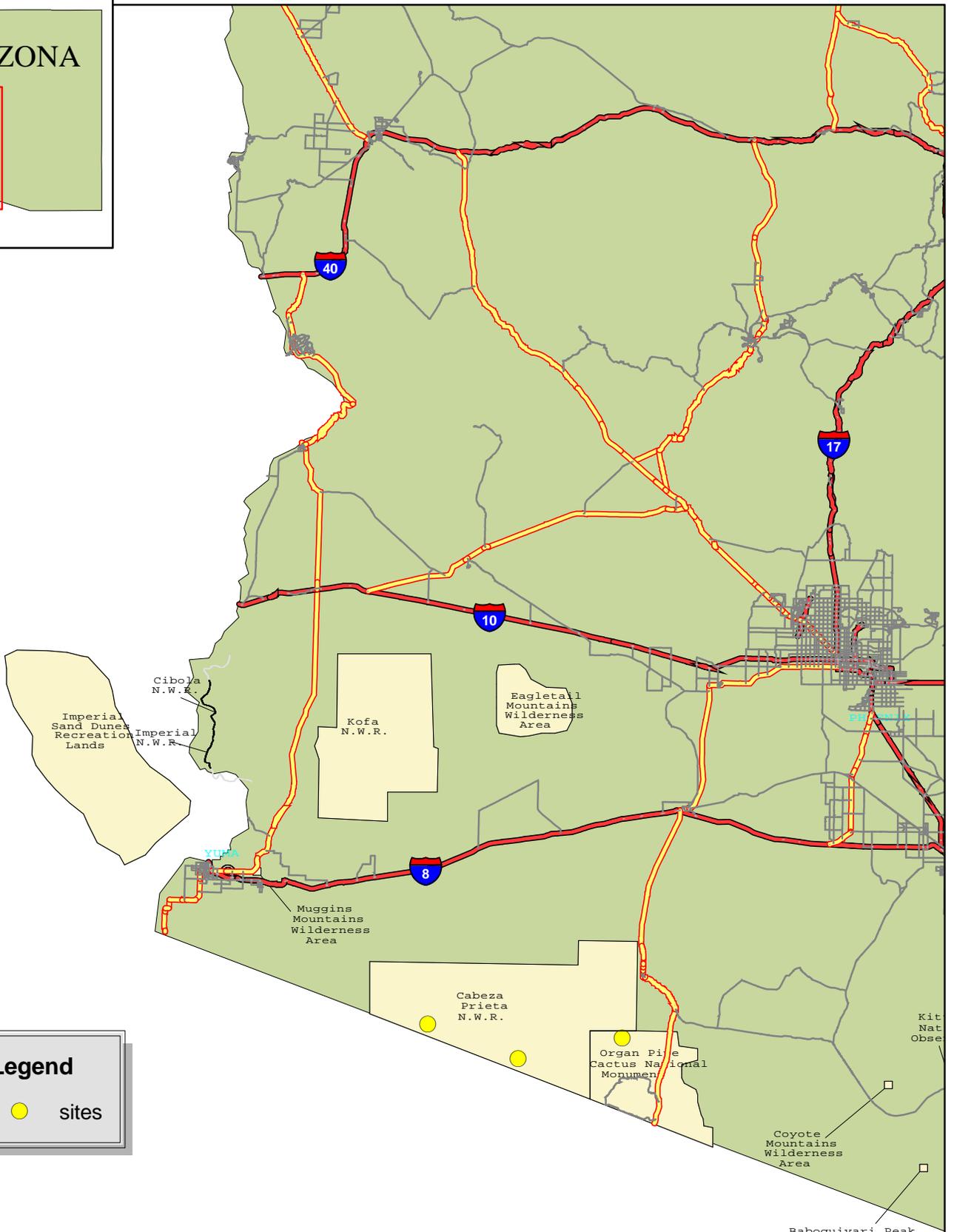
The need for the temporary stations, therefore, is due to the expected numbers of deaths that will occur during this summer without the presence of USBP agents. The purpose of Operation Desert Grip would be first to deter UDAs and drug traffickers from attempting to illegally cross the border in this region and secondly to eliminate up to 6 hours per day of travel time required by the USBP Stations to this remote area (Figure 1). This would increase the time available for ground patrols in the affected area as well as the response time for apprehension and rescue efforts

### **1.3 Proposed Action**

Under Operation Desert Grip, the USBP Wellton Station in conjunction with the Ajo Station will establish two camp detail sites or temporary "stations" (figures 2 and 3). The Ajo Station is proposed to be established at Bates Well in the National Park Service's (NPS) Organ Pipe National Monument and at the Los Vidrios camping area in the Cabeza Prieta NWR, which



ARIZONA



**Legend**

● sites

0 5 10 20 30 40 Miles

**gsrc** | GULF SOUTH RESEARCH CORPORATION

**Figure 1: Site Locations Map**

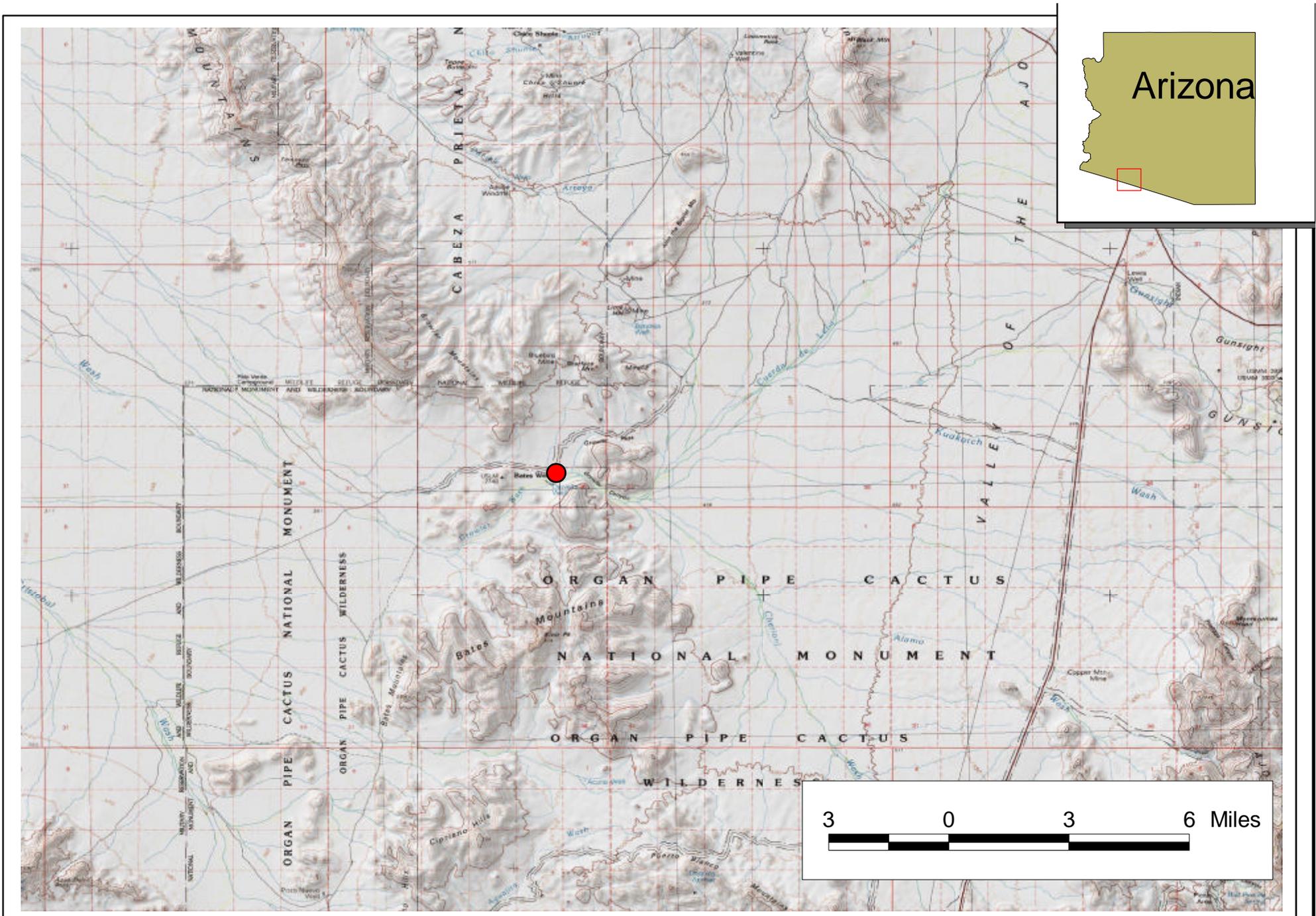


Figure 2: Proposed Trailer Location at Bates Well  
Pima County, Arizona



Arizona

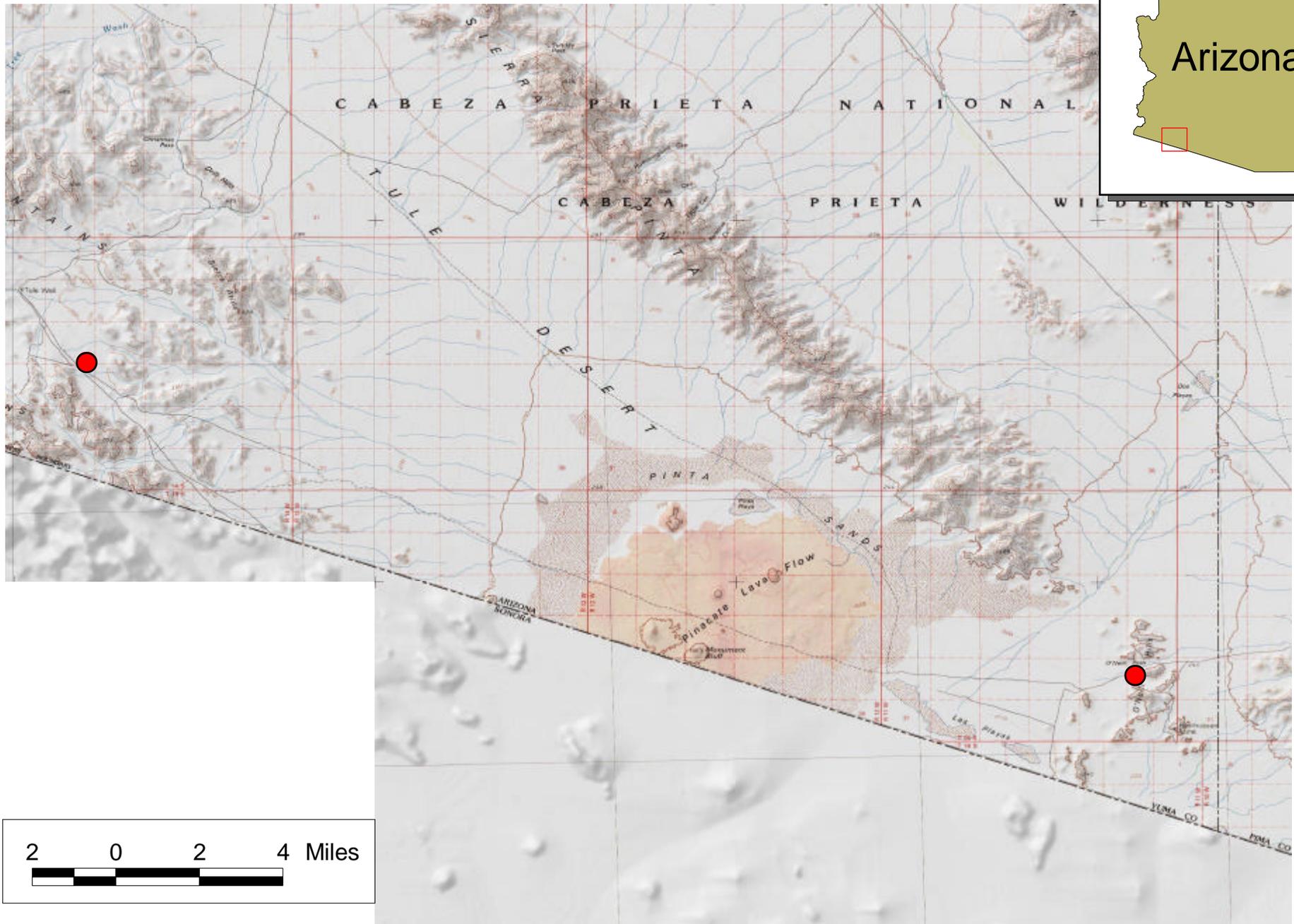


Figure 3: The Two Proposed Trailer Locations  
Yuma County, Arizona

is administered by the U.S. Fish and Wildlife Service (USFWS). This operation will be a cooperative action where USBP agents will patrol an area from near Monument 180 east into the Ajo Station Area of Operations (AO) at Monument 175 using El Camino Del Diablo as a base route. The agents will patrol east and west along the Camino Del Diablo, which will be used as the primary operational route for this assignment.

The operational work schedule will consist of two 12-hour shifts providing 24-hour coverage of the described area. Each 12-hour shift will consist of two USBP Agents. These agents will work as single man units with one agent per vehicle. The Wellton Station will provide two vehicles per shift with a third vehicle in reserve. The total agent compliment for each detail rotation will be four agents and three vehicles.

The USBP Wellton Station is proposed to be located in the area of the Los Vidrios Trail, at Tule Wells and the Camino Del Diablo. The El Camino Del Diablo runs perpendicular approximately three miles north of the International Boundary between the United States and Mexico. Located in the immediate vicinity of Monument 179, and within Yuma Sector AO is "The Los Vidrios Trail." The Los Vidrios Trail is a man-made road leading north from the US/Mexico border that has become the route of choice for illegal vehicle entries from Mexico into the United States. The Los Vidrios Trail originates at Los Vidrios, Sonora, Mexico and travels north into the United States intersecting with El Camino Del Diablo approximately three miles west of the Yuma/Tucson Sector AOR division line. In addition to the Los Vidrios Trail, Davidson Canyon, and several other areas in the Agua Dulce Mountains facilitate vehicle entries into this area.

This high visibility, high profile operation is designed primarily to deter illegal entries in Arizona's western desert which is under the jurisdiction of the Ajo and Wellton Stations. All vehicles and pedestrians found in this area are subject to Border Patrol enforcement interest. This enhanced USBP presence on the Camino Del Diablo will significantly deter illegal activity within the designated area. All UDA smugglers apprehended will be prosecuted to the fullest extent of the law. All vehicles involved in alien smuggling will be seized.

**SECTION 2.0  
ALTERNATIVES**



## **2.0 ALTERNATIVES**

This section of the EA describes the alternatives considered during the preparation of the document. Two alternatives were considered: (1) No Action, (2) Proposed Action. Each of these is discussed in the following paragraphs.

### **2.1 Alternative 1. No Action Alternative**

The No Action Alternative would force the USBP to rely on their current resources to detect and provide humanitarian assistance to UDAs at a time when illegal immigration and temperatures are increasing. This alternative could result in a continued increase in deaths and increase the risks to USBP agents' health and safety while trying to rescue the UDAs in rugged terrain. This alternative would also result in additional ground disturbance from off-road vehicles during rescue operations. Ultimately, the USBP has determined that this alternative would unduly risk the lives of UDAs and USBP agents.

### **2.2 Alternative 2. Proposed Action**

The proposed action would be to establish the temporary stations, which would consist of a 27-foot camp trailer parked in a disturbed area along established roads. These roads are dirt/gravel roads that are used by the NPS or USFWS staff during their management duties. Some, such as the Camino Del Diablo, are public access roads. The trailer would serve as administrative, mess, and housing quarters for five USBP Agents, who would be assigned to the station on 7-day shifts. The five agents would work on two 12-hour shifts. Portable toilet facilities; showers; two portable generators; two fuel trailers including one 250-gallon unleaded and one 100-gallon diesel trailers with hand crank fuel dispensers; two water trailers (400 gallon tanks); and a gas grill and extra propane tank. Fuel trailers, gray water, (from showers, toilets, and mess facilities), and solid waste would be maintained by licensed contractors. Upon completion of Operation Desert Grip, all structures would be removed and the site restored to pre-project conditions.

Other alternate locations were considered, however, were not supported by the U.S. Fish and Wildlife Service (USFWS). The other alternate sites were located in more environmentally sensitive areas.

**SECTION 3.0**  
**ENVIRONMENTAL BASELINE CONDITIONS**



### **3.0 ENVIRONMENTAL BASELINE CONDITIONS**

#### **3.1 Climate**

The climate in southern Arizona is quite varied due to differences in elevation and proximity to physical features such as mountains. Two distinct climatic zones, the Mexican Highland Zone and the Sonoran Desert Zone differentiate the Tucson Sector. The Mexican Highland Zone in Santa Cruz, Cochise, and eastern Pima counties is at a higher elevation than the Sonoran Desert Zone. Annual temperature variations in the area range from 111°F to -1°F. Relative humidity ranges from 50 percent in the mornings to 33 percent in the afternoons.

The Sonoran Desert Zone in western Pima, Maricopa, and Pinal counties has a desert climate. Annual precipitation in the area ranges from less than three inches at lower elevations to 12 inches at upper elevations. Almost 50 percent of the normal yearly precipitation occurs from mid-July to mid-September as a result of moisture-laden air currents moving into Arizona from the Gulf of California. Temperatures in the summer months range from 71° to 108°F with a maximum of 124°F having been reported. Due to the proximity of the Gulf of California, relative humidity ranges from 53 percent in the mornings to 23 percent in the afternoons, which can significantly increase the heat index. Prevailing winds are from the north and are highest (10 mph) in July.

#### **3.2 Physiography**

Southern Arizona lies within the Basin and Range Physiographic Province and is characterized by intensely deformed and intruded strata within numerous fault blocks. This province has roughly parallel but discontinuous mountain ranges that, in Arizona, tend to be linear and oriented generally northwest to southeast. Broad alluvial valleys separate these block-faulted mountain ranges. The Basin and Range Province in the study area can be subdivided into two physiographic sub-provinces: the Mexican Highlands and the Sonoran Desert (Hayes 1969).

The Mexican Highland subprovince includes the eastern part of Pima County. Mountain ranges make up nearly half of the area (Hayes 1969) and may rise to more than 9,000 feet mean sea level (MSL). The Sonoran Desert subprovince includes Maricopa County and the western portions of Pima and Pinal counties. In contrast to those of the Mexican Highlands,

the mountain ranges in this subprovince are lower and narrower, and cover less than a fourth of the area (Hayes 1969).

A number of landforms are present throughout the Arizona border region. These physiographic features include relatively large-scale features such as mountains, basins, and volcanic cinder cones and flows, and relatively small-scale features such as sand dunes, alluvial fans, pediments, and playas. Landforms present in the study area are features typically associated with desert regions. Much of the shaping of the present southern Arizona landscape occurred during the Quaternary (i.e., the last two million years) (Cooley 1967).

### **3.3 Land Use**

The land use in the area includes agriculture, rangeland, urban, forest, recreation/special use, and water. The major Federal agencies controlling large land areas are the U.S. Forest Service (USFS), National Park Service (NPS), Department of Defense (DoD), USFWS and the Bureau of Land Management (BLM). The major state agencies controlling large areas of land are the Arizona State Land Department, Arizona State Parks and the Arizona Game and Fish Department. Native American Nations also own significant areas of land. Private and corporate land ownership, a small percentage of the total land area, contains the urban areas and intensive specialized agriculture land, along with large areas of open rangeland.

### **3.4 Air Quality**

The U.S. Environmental Protection Agency (USEPA) defines ambient air quality in 40 CFR 50 as "that portion of the atmosphere, external to buildings, to which the general public has access". In 40 CFR 50, USEPA has designated "criteria air pollutants" in which ambient air quality standards have been established. Ambient air quality standards are intended to protect public health and welfare and are classified as either "primary" or "secondary" standards. Primary standards define levels of air quality necessary to protect the public health. National secondary ambient air quality standards define levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Primary and secondary standards have been established for carbon monoxide, lead, ozone, nitrogen dioxide, particulate matter (total and inhalable fractions) and sulfur dioxide. Areas that do not meet these standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The state of Arizona has

adopted the National Ambient Air Quality Standards (NAAQS) as the state's air quality standards. These standards are presented in Table 3-1.

The majority of the Arizona segment of the U.S.- Mexico border area is sparsely settled desert or semi-desert. However, this segment contains the large urban areas of the Tucson metropolitan areas. Several "sister cities" are also located along the U.S.-Mexico border. There are a number of air quality problems related to the rural, urban, and industrial areas within this study area. Man-made sources of air contaminants affect the air quality of the study area. These sources include: industrial emissions, mobile (vehicular) emissions, area emissions (e.g., emissions from numerous residences and small commercial establishments in an urban setting), dust resulting from wind erosion of agriculturally disturbed lands, smoke from forestry burns, and pollutants transported into the study area on winds blowing from major urban/industrial areas outside the study area. One of the largest sources of air pollution in Arizona is the controlled burning of forest land.

Airborne particulates are a special problem in the border area. Construction activity and windblown dust from disturbed desert are significant sources of fugitive dust. In agricultural areas, farming activity is an additional source of fugitive dust. Many residences in the Mexican border area burn non-traditional fuels such as wood scraps, cardboard, and tires to provide warmth in the winter. The resulting particulate loading can also adversely affect air quality in the Arizona border counties.

In addition to airborne particulates, high concentrations of sulfur dioxide in the study area are of concern. Sulfur dioxide is the primary contributor to acid deposition, which causes acidification of lakes and streams and can damage trees, crops, historic buildings, and statues. In addition, sulfur dioxide compounds in the air contribute to visibility impairment and may affect breathing and aggravate existing respiratory and cardiovascular disease (USEPA 2001). Ambient sulfur dioxide in the study area results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills, and from nonferrous smelters.

**Table 3-1  
National Ambient Air Quality Standards**

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

Source: EPA 2001. Arizona Department of Environmental Quality 2001.

Legend: P = Primary S = Secondary  
 ppm = parts per million mg/m<sup>3</sup> = milligrams per cubic meter  
 µg/m<sup>3</sup> = micrograms per cubic meter  
 \*Parenthetical value is an approximately equivalent concentration.  
 \*\*The ozone 8-hour standard and the PM 2.5 standards are included for information only.

### 3.5 Noise

Noise is generally described as unwanted sound, which can be based either on objective effects (hearing loss, damage to structures, etc.) or subjective judgments (community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as a sound level. The threshold of human hearing is approximately 0 dB, and the threshold of discomfort or pain is around 120 dB. The proposed areas are remote and do not have many disturbances caused by development or other human activities. Thus, the ambient noise levels in these areas are expected to be near 60-65 dbA, except during military aircraft training exercises, which use the airspace over the Cabeza Prieta NWR.

### **3.6 Surface Water**

Surface water in southern Arizona is considered to be within the Lower Colorado Hydrologic Region. The state of Arizona has implemented a watershed management approach for its water resources. The major surface water basins in the study area delineated by the Arizona Department of Environmental Quality (ADEQ) are as follows: the Colorado/Lower Gila, the Santa Cruz/Rio Magdalena/Rio Sonoita, the San Pedro/Wilcox Playa/ Rio Yaqui, and the San Carlos/Safford/Duncan basins (ADEQ, Source Water Assessment, 1992). The Wilcox Playa Basin is a topographically closed basin that drains toward the interior. During seasonal flooding, shallow lakes appear that when dry become vast salt playas. The Gila River, San Pedro River, and Santa Cruz River basins ultimately drain into the Southern Colorado River Basin. The Rios de Mexico Basin, consisting of the Yaqui River and the Sonoran Drainage, drain south into Mexico.

Water quality assessments for the study area indicate that the major problems of surface water (stream/riverine) include heavy metals, ammonia, low dissolved oxygen, turbidity, total dissolved solids, and fecal coliform bacteria. The potential sources contributing to these water quality problems include mining operations, municipal point sources including wastewater effluent, agriculture irrigation and recirculation, range management, and other non-point sources (ADEQ 1992).

### **3.7 Biological Resources**

#### **3.7.1 Biotic Provinces**

There are two biotic provinces within southern Arizona: (1) the Chihuahuan province which runs west from the New Mexico-Arizona state line through a large portion of Cochise County, Santa Cruz County, and parts of Pima County and (2) the Sonoran province which includes the northwestern part of Santa Cruz County and Pima, Pinal, Maricopa, Yuma, and La Paz counties (Dice 1943).

The Chihuahuan biotic province covers the grassy high plains and mountains of southeastern Arizona and consists of plant and wildlife species adapted to semiarid conditions. The Sonoran biotic province covers the desert region of south-central and southwestern Arizona and is characterized by extensive plains from which isolated small mountains and buttes rise abruptly.

There are three proposed sites for placement of these temporary stations. One of preferred locations for the Ajo Station is at Bates Wells in Pima County, Arizona. A site visit was conducted on 1 May 2002. The vegetation observed during the field visit consisted of greasewood bush, scattered ocotillo, Sonoran cactus and teddy bear cholla. The proposed area where the temporary station (trailer) would be placed is within the parking area. This site has previously been cleared and is disturbed.

The second preferred location, this one for the Wellton Station, is proposed for the placement in Yuma County, Arizona, approximately 0.12 miles off of Camino del Diablo. The vegetation within this area consists of greasewood bush, Sonoran cactus, palo verde, and teddy bear cholla.

The alternate site for the Wellton Station is located off of Camino del Diablo, in Yuma County, Arizona. The vegetation found during the field surveys conducted 2 May 2002, consisted of greasewood bush, teddy bear cholla, agave, and ocotillo.

### **3.7.2 Protected Species and Critical Habitat**

The Endangered Species Act (ESA) [16 U.S.C. 1531 et. seq] of 1973 as amended was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All Federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the act. Responsibility for the identification of a threatened or endangered species and any potential recovery plan lies with the Secretary of the Interior and the Secretary of Commerce.

Table 3-2 presents the species included on the Federal list of threatened or endangered species that are known or presumed to occur in the Arizona border counties. As can be seen from this table, there are five plants, eight birds, 6 fishes, four mammals, one reptile, and one amphibian. Most of these also occur along river drainages or canyons within the various mountain ranges.

**Table 3-2  
Federally Listed, Proposed, and Candidate Species Potentially Occurring  
within Pima, Yuma, and Santa Cruz Counties, Arizona**

Common/Scientific Name	Status	Date Listed	Counties	Habitat
<b>PLANTS</b>				
Acuna cactus <i>Echinomastus erectocentrus acunensis</i>	C	7/1/75	Pima	Well drained knolls and gravel ridges in Sonoran desertscrub
Huachuca water umbel <i>Lilaeopsis schaffneriana ssp. recurva</i>	E	1/6/97	Pima	Cienegas, perennial low gradient streams, wetlands
Kearney's blue star <i>Amsonia kearneyana</i>	E	1/19/89	Pima	West-facing drainages in the Baboquivari Mountains
Nichol's turk's head cactus <i>Echinocactus horzonthalonius var. nicholii</i>	E	10/26/79	Pima	Sonoran desertscrub on limestone slopes in desert hills
Pima pineapple cactus <i>Coryphantha scheeri robustispina</i>	E	4/20/92	Pima	Sonoran desertscrub or semi-desert grassland communities
<b>BIRDS</b>				
Bald eagle <i>Haliaeetus leucocephalus</i>	T	1/12/95	Pima, Yuma, and Santa Cruz	Large trees or cliffs near water with abundant prey
Brown pelican <i>Pelecanus occidentalis</i>	E	10/13/70	Pima, Yuma and Santa Cruz	Feed in shallow estuarine waters; nest on small coastal islands
Cactus ferruginous pygmy-owl <i>Glaucidium brasilianum cactorum</i>	E	3/10/97	Pima, Yuma, and Santa Cruz	Mature cottonwood/willow, mesquite bosques, and Sonoran Desertscrub
Masked bobwhite <i>Colinus virginianus ridgewayi</i>	E	3/11/67	Pima	Desert grasslands with diversity of dense native grasses, forbs and brush
Mexican spotted owl <i>Strix occidentalis lucida</i>	T	3/15/93	Pima	Nests in canyons and dense forests with multi-layered foliage structure

**Legend:**

E – Endangered      C - Candidate  
T – Threatened      PT- Proposed Threatened

**Source:** USFWS 2001 Last Updated October 11, 2001.

**Table 3-2 Continued**

<b>BIRDS cont.</b>				
Mountain plover <i>Charadrius montanus</i>	PT	2/16/99	Pima and Yuma	Open arid plains, short-grass prairies, and scattered cactus
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	E	2/27/95	Pima and Yuma	Cottonwood/willow and tamarisk vegetation communities along rivers and streams
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	E	3/11/67	Yuma	Cattail and bulrush marshes along the Colorado River, Gila River and Salton Sea
Yellow-billed cuckoo <i>Coccyzus americanus</i>	C	7/25/01	Pima	Broadleaf riparian forests
<b>AMPHIBIANS</b>				
Chiricahua leopard frog <i>Rana chiricahuensis</i>	P	6/14/00	Pima	Streams, rivers, backwaters, ponds, and stock tanks
<b>MAMMALS</b>				
Lesser long-nosed bat <i>Leptonycteris curasoae yerbabuenae</i>	E	9/30/88	Pima	Desert scrub habitat with agave and columnar cacti present as food plants
Mexican gray wolf <i>Canis lupus baileyi</i>	E	3/11/67	Pima	Chaparral, woodland, and forested areas; may cross desert areas
Ocelot <i>Felis pardalis</i>	E	7/21/82	Pima	Humid tropical and sub-tropical forests, savannahs, and semi-arid thornscrub
Sonoran pronghorn <i>Antilocapra americana sonoriensis</i>	E	3/11/67	Pima and Yuma	Broad, intermountain alluvial valleys with creosote-bursage/palo verde-mixed cacti

**Legend:**

E – Endangered      C – Candidate  
T – Threatened      PT – Proposed Threatened

**Source:** USFWS 2001. Last Updated October 11, 2001.

**Table 3-2 Continued.**

<b>REPTILES</b>				
Sonoyta mud turtle <i>Kinosternon sonoriense longifemorale</i>	C	9/19/97	Pima	Ponds and streams
<b>FISHES</b>				
Desert pupfish <i>Cyprinodon macularius</i>	E	3/31/86	Pima	Shallow springs, small streams, and marshes; tolerates saline and warm water
Gila chub <i>Gila intermedia</i>	C	9/18/85	Pima	Pools, springs, cienegas, and streams
Gila topminnow <i>Poeciliopsis occidentalis occidentalis</i>	E	3/11/67	Pima	Small streams, springs, and cienegas vegetated shallows
Loach minnow <i>Tiaroga cobitis</i>	T	10/28/86	Pima	Cool to warm water, low gradient streams and rivers in the Gila River basin
Razorback sucker <i>Xyrauchen texanus</i>	E	5/22/90	Yuma	Rivers with strong, uniform currents over sandy bottoms
Spikedace <i>Meda fulgida</i>	T	7/1/86	Pima	Cool to warm water streams and rivers of moderate gradient in the Gila River basin

**Legend:**

E – Endangered      C – Candidate  
T – Threatened      PT – Proposed Threatened

**Source:** USFWS 2001. Last Updated October 11, 2001.

The protected species known to occur within the designated counties of this proposed action are concentrated near the Organ Pipe National Monument and Cabeza Prieta NWR. The Organ Pipe National Monument supports the cactus ferruginous pygmy owl, however, this area is not designated as critical habitat.

The Sonoran pronghorn is located primarily on the Cabeza Prieta NWR and the western portions of the Organ Pipe National Monument. Sonoran pronghorn inhabit the broad alluvial valleys of the Sonoran Desert that exhibit more open sandy areas and low hillsides with a variety of palatable forage. The availability of forage is a primary factor that influences pronghorn distribution. Since the U.S. range of the Sonoran pronghorn is contained on Federal lands, no critical habitat has been designated for the species.

There are no designated critical habitats in Yuma County (USFWS 2001). One area was designated as critical habitat for the desert pupfish in Arizona on March 31, 1986 (51 FR 10842-10851). This area includes a Quitobaquito Spring and a 100-foot riparian buffer zone around the spring located in Organ Pipe Cactus National Monument, which is located in the Ajo Station AO, Pima County.

The Mexican spotted owl has several designated units within the project area. There are nine areas in Pima County that have been designated as critical habitat for the Mexican spotted owl (USFWS 2001). However, as of 1 February 2001, any of these areas within NFS land is considered excluded from the critical designation {50 CFR 17.95(b)}.

### **3.8 Cultural Resources**

The archeology of southern Arizona is quite detailed, and relatively complex considering the various geographic and related cultural features. For purposes of clarity, the following text will present the broad overview of southern Arizona prehistory before outlining the various previous investigations that are important to the understanding of the study area. The cultural chronology of southern Arizona is composed of five periods, namely:

Paleo-Indian	10,000 to 7,500 B.C
Archaic	7,500 to 400 BC
Formative	AD 100 to 1450
Protohistoric	AD 1450 to 1539
Historic	AD 1539 to Present

These periods are commonly subdivided into smaller temporal phases based on particular characteristics of the artifact assemblages encountered in each of three archeological regions within southern Arizona. The prehistoric periods and corresponding phases are defined by the presence of particular diagnostic artifacts such as projectile points, certain types of pottery, and occasionally, particular site locations. For the Historic period, documentary information more often is used to distinguish certain phases; nevertheless, particular artifacts also can be used to recognize certain historic affiliations. Numerous sites have been recorded throughout the border region, many of which have subsequently been listed on the National Register of Historic Places (NRHP). Literally hundreds of other sites and structures in southeastern Arizona are considered potentially eligible for NRHP-listing.

### 3.9 Socioeconomic Conditions

#### 3.9.1 Population

No populated areas are located within the project area since Operation Desert Grip will be located entirely on land area owned by the Federal government (i.e., Cabeza Prieta NWR and Organ Pipe NM). The area surrounding these two entities, though, is sparsely populated. According to the latest Census Bureau estimates, the 2000 population in the two-county area was estimated to be 742,656 (Table 3-3) of which 75 percent is in Pima County. The 2000 population demonstrates a 14 percent decrease over the 1990 population.

**Table 3-3  
Demographic Information for Counties (2000 Census) along the Arizona Land Border**

County	Race				
	White	African-American	Native American	Asian	Hispanic
Arizona					
1990	3,277,590 (89%)	114,960 (3%)	214,427 (6%)	58,362 (2%)	163,262 (24%)
2000	3,873,611 (75%)	158,873 (3%)	255,876 (5%)	92,236 (2%)	247,578 (29%)
Yuma					
1990	100,142 (94%)	3,345 (3%)	1,831 (2%)	1,577 (1%)	43,388 (41%)
2000	109,269 (68%)	3,550 (2%)	2,626 (2%)	1,486 (1%)	80,772 (50%)
Pima					
1990	608,751 (91%)	21,951 (3%)	23,605 (4%)	12,650 (2%)	
2000	633,387 (75%)	25,594 (3%)	27,178 (3%)	17,213 (2%)	

Legend: sq. = square

Source: U.S. Census Bureau 2001

**SECTION 4.0**  
**ENVIRONMENTAL CONSEQUENCES**



## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 Climate**

Neither of the alternatives would affect the climate. The climatic conditions of the Arizona border region, however, play an integral role in the purpose and need for Operation Desert Grip. The upcoming summer months typically experience the highest temperatures and without commitment of additional resources and efforts, migrant deaths are highly likely to occur due to the climatic conditions.

### **4.2 Physiography**

None of the alternatives would affect the physiography of the Arizona border region. Conversely, the physiography, like the climate, affect migrants' ability to enter the United States. The rugged terrain exacerbates the extreme conditions, and thus increases the likelihood of migrant fatalities. In addition, these conditions increase the health and safety risks of the USBP agents attempting to apprehend the UDAs before they get in serious medical trouble or rescue UDAs who are in trouble.

### **4.3 Land Use**

#### **4.3.1 No Action Alternative**

Implementation of this alternative would have no affect on the regional land use. The UDAs and drug traffickers would continue to trespass on private and public lands, forcing the USBP agents to attempt apprehensions and/or rescues, wherever possible. The overall use of the land would not be expected to change.

#### **4.3.2 Preferred Alternative**

No significant effects to overall land use would be expected as a result of the preferred alternative. Some minor, temporary disturbances would occur whenever rescue operations are employed.

Establishment of the temporary stations would temporarily alter land use. None of the sites would be located within the Wilderness Area of the Cabeza Prieta NWR and thus would not

be in conflict with the Wilderness Area's objectives and management goals. In fact, areas along the Camino Del Diablo within the Cabeza Prieta NWR are regularly used by the general public for camping; thus, the proposed camp detail is similar to the current land use. The trailers and ancillary facilities would be located within previously disturbed areas along established (administrative) roads in the NWR or Organ Pipe National Monument and would be removed immediately upon cessation of Operation Desert Grip. The proposed action would increase the presence of USBP agents; however, agents patrol this area normally so the overall land use would not change.

#### **4.4 Air Quality**

##### **4.4.1 No Action Alternative**

The No Action alternative would require additional USBP agents and vehicles to patrol the area from their normal duty stations in Ajo and Wellton in search of UDAs and illegal drug traffickers. However, no violations to air quality standards would be expected.

##### **4.4.2 Preferred Alternative**

Operation of patrol vehicles would create hydrocarbon emissions. Dispersal capabilities within the region would be expected to minimize any effects these emissions would cause. Fugitive dust emissions would be greater under this alternative, since the vast majority of the roads in the border region are dirt or gravel and the patrol traffic would necessarily increase. The hydrocarbon and fugitive dust emissions would be expected to be below de minimus threshold levels; therefore an air quality conformity analysis is not required.

#### **4.5 Noise**

##### **4.5.1 No Action Alternative**

The No Action alternative would not significantly affect the ambient noise levels. Some temporary and minor increases in noise levels would be generated by the routine ground patrol traffic.

##### **4.5.2 Preferred Alternative**

The power generators and portable light generators at the temporary stations would increase noise levels within the immediate vicinity of the camp. These increases would occur at night,

thereby affecting the ambient day-night average sound level (DNL) of the area. These effects would be minor, localized, and temporary. The noise generated by this equipment would be expected to be attenuated to ambient levels within 0.25 miles. No noise sensitive receptors (i.e., schools, hospitals, churches) are located in proximity to the proposed portable light generators that would be affected by the proposed operation. Wildlife would be expected to become acclimated to the noise.

## **4.6 Water**

### **4.6.1 No Action Alternative**

No direct adverse effects to surface or ground water supplies or quality would be anticipated as a result of the No Action alternative.

### **4.6.2 Preferred Alternative**

The preferred alternative would not be expected to significantly affect the region's water supply or water quality. Petroleum, oils and lubricants (POL) storage at the temporary stations would include secondary containment measures. The POL storage site would be located at least 0.25 mile from a stream channel to reduce the chances of surface water contamination in the event of an accidental spill. Clean-up materials (e.g., oil mops) would also be maintained at the site to allow immediate action in case an accidental spill occurs. Drip pans would be provided for the power and portable light generators to capture any POL that is accidentally spilled during maintenance activities or leaks from the equipment. Gray water from sanitary facilities would be collected and disposed of by licensed contractors. No gray water would be discharged to the ground. Disposal contractors would use only established roads to transport equipment and supplies; all waste would be disposed of in strict compliance with Federal, state, and local regulations, in accordance with the contractors' permits.

Indirect effects may occur from erosion and sedimentation caused by the increase patrol traffic. The magnitude of these effects are difficult, if not impossible, to determine and would be dependent upon several biotic and abiotic variables. Such variables would include number and speed of the patrol vehicles, condition of vegetation communities adjacent to roads and drainages, soil types along roadbeds, extant condition of roadbeds, and climatic conditions.

## **4.7 Biological Resources and Critical Habitat**

### **4.7.1 No Action Alternative**

Implementation of the No Action Alternative would require the USBP to continue their occasional patrol efforts in this area. Consequently, it would be expected that the rate of illegal entry attempts would increase. UDA/smuggler foot and vehicle traffic would increase without regard of sensitive species or their habitat. Thus, species such as the Sonoran pronghorn could be adversely affected under this alternative.

### **4.7.2 Preferred Alternative**

Although one of the temporary stations would be located within the Cabeza Prieta NWR, USFWS representatives indicated that no significant impacts would occur due to the temporary and relatively short duration of the proposed action and the fact that previously disturbed areas would be used to locate the facilities. The USBP and NPS are still in consultation regarding the placement of the camp detail at Bates Well.

The area affected by illumination from the portable lights is expected to be 200 feet from the light source mostly within the footprint of the temporary station. The adverse and/or beneficial effects of lighting on reptiles and amphibians are currently unknown; however, continual exposure to light has been proven to slightly alter circadian rhythms in mammals and birds. Studies have proven that under constant light, the time an animal is active, compared with the time it is at rest, increases in diurnal animals, but decreases in nocturnal animals (Carpenter and Grossberg 1984). Also, in diurnal animals, the total amount of active time increases with light intensity, while the reverse is true in nocturnal species (Carpenter and Grossberg 1984). The alteration of circadian rhythms by high intensity lighting is minimal, accounting for a maximum of two to three hours of increase or decrease in activity per day (Luce 1977). It has also been shown that within several weeks under constant lighting, mammals and birds will quickly stabilize and reset their circadian rhythms back to their original schedules. The long-term effect of an increased photoperiod on mobile wildlife species is expected to be insignificant. Given the vast open area surrounding the proposed locations for the camps and the temporary nature of the detail, animals can easily relocate to adjacent areas of darkness.

No vegetation would be removed during the establishment of the camps. Biological surveys have been conducted prior to placement of the trailer and ancillary facilities to ensure that no sensitive species or habitats are impacted.

The INS/USBP, Yuma Sector, recently completed a Biological Assessment (BA) and received a Biological Opinion (BO) from the USFWS concerning helicopter missions over the Cabeza Prieta NWR and other daily operations. As a result of a recent Notice of Intent to Sue, the USFWS and INS/USBP have re-entered formal Section 7 consultation for both the Yuma and Tucson Sectors. The BA, which is expected to be submitted during May 2002, will address the daily operations of both sectors on numerous protected species. As part of this on-going consultation, however, the USBP has implemented several conservation measures designed to reduce or eliminate potential effects to Sonoran pronghorn including:

1. avoidance of fawning areas
2. minimizing helicopter hovering and landings to the extent practicable
3. coordination of flight schedules with the AGFD on a weekly basis
4. submitting monthly coordination reports to the Cabeza Prieta NWR
5. restricting USBP vehicles speeds to 25 mph on the Cabeza Prieta NWR

In addition, the USBP has recently initiated efforts to assist in funding joint studies on the effects of human disturbances on Sonoran pronghorn. The proposed action would temporarily disturb Sonoran pronghorn depending upon the location and duration of the temporary stations. The INS/USBP has entered into an emergency Section 7 consultation with the USFWS to address these impacts and to identify any potential mitigation measures that could be implemented.

This alternative would increase the patrol efforts and possibly the need for off-road rescue attempts, thereby increasing the potential for effects to vegetation communities, with concomitant effects to wildlife populations. Off road traffic would occur only when absolutely necessary to prevent the potential loss of human life. The magnitude of these off-road effects would depend upon numerous variables including the number of off-road trips required in the same general area, the extant condition of the vegetation communities, climatic conditions, soil types, and topography.

## **4.8 Cultural Resources**

### **4.8.1 No Action Alternative**

The No Action Alternative would be expected to result in no additional effects to cultural resources.

### **4.8.2 Preferred Alternative**

Establishment of the temporary stations would not be expected to affect cultural resources since the sites would be located in areas previously disturbed. Surveys were performed 1-2 May 2002 to ensure that no cultural resource sites area present. The only site that had a structure present was the Bates Well site (see Appendix A). The proposed placement of the temporary station would not adversely affect this historic structure. The proposed placement of the temporary station would be within the established parking area, which has been previously disturbed. This alternative would allow additional ground patrols to be conducted. No effects to cultural resources would be expected during the normal patrol efforts. However, in the event that off-road rescue missions are required, the potential to adversely affect unknown, but potentially significant cultural resources would be increased. The magnitude of these effects, of course, would be dependent upon the number of off-road trips required, the location, and the number and type of vehicles used in the rescue mission.

## **4.9 Socioeconomics**

### **4.9.1 No Action Alternative**

The No Action Alternative would have no affect on the regional or local economy. However, under this alternative the number and rate of illegal entrants deaths will increase.

### **4.9.2 Preferred Alternative**

The Preferred Alternative would require up to USBP agents to be temporary assigned from the Ajo and Wellton stations. No effects to the local or regional economy would result. Implementation of this alternative would save untold lives, however.

#### **4.10 Environmental Justice and Protection of Children**

This section of the EA addresses the Proposed Action's potential to generate disproportionately high and adverse human or environmental effects on minority and low-income populations, as required under Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The predominance of the population (about 64%) claims to non-Hispanic whites. The average per capita income (PCPI) of the families within the counties along the border is below the state and national average for PCPI. However, no construction activities or other permanent actions are expected to be located near minority or low-income residential and commercial areas. No displacement of residential or commercial structures or areas is anticipated as a result of this project. The project would beneficially affect the entire ROI regardless of race and/or income level, by saving lives regardless of race, nationality or income. Therefore, this project would not result in any violations of the intent of Executive Order 12898.

Executive Order 13045, "Protection of Children from Environmental Health Risks" requires that Federal agencies evaluate the potential to generate disproportionately high environmental health and safety risks to children. The actions proposed in this EA would not result in disproportionately high or adverse environmental health or safety impacts to children. To the contrary, the proposed action would increase the safety of children who are illegally attempting to enter the United States through the harsh southern Arizona desert.

#### **4.11 Cumulative Impacts**

This section of the EA addresses the potential cumulative impacts associated with the implementation of the alternatives outlined in Chapter 2.0 and other projects/programs that are planned for the region. The following paragraphs present a general discussion regarding cumulative effects that would be expected irrespective of the alternative selected.

The Council of Environmental Quality defines cumulative impacts as the incremental impact of multiple present and future actions with individually minor but collectively significant effects. Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment.

Currently, there are several on-going USBP projects along the U.S.-Mexico border within Arizona. On-going projects within the Naco-Douglas corridor include road improvement projects, installation of stadium and portable lights along the U.S.-Mexico border, and the installation of numerous RVS sites. In addition, it has been proposed to place temporary stations (trailers) within disturbed areas in the west desert. These exact locations are not known at this time and will be addressed in a separate document. These projects are primarily for the purpose of facilitating deterrence and apprehension efforts. If apprehension is not assured, deterrence will not be achieved. Thus, in the absence of such projects there is the likelihood of an increase in possible border crossings into the rugged terrain and possibly an increase in UDA deaths within the summer months. The INS/USBP is currently preparing a Programmatic Environmental Impact Statement (PEIS) to address the potential effects of the Tucson and Yuma Sectors' daily operations on the human and natural environment along the Arizona border. This PEIS is scheduled for release in early summer 2002.

Impacts due to off-road rescue attempts are unquantifiable because the number of rescues cannot be determined at this point. There would also be an increase in the noise levels because of the helicopter overflights. The noise impacts would be sporadic and temporary and only for the duration of this project.

Resources, such as soil, water supplies, and air quality, would be impacted during and immediately after completion of Operation Skywatch each year. These impacts would be short term and none of these resources would be expected to incur significant cumulative impacts. None of the projects to date have indicated a potential excursion that could violate National air quality standards. Operation Skywatch would not remove any habitat from ecologic production. Any impacts to cultural resources sites, as a result of unexpected landings, would require immediate notification to the SHPO and interested Native American Nations and possible mitigation.

Impacts due to off-road rescue attempts are not quantifiable because the number of rescues cannot be determined at this point. There may also be an increase in the noise levels because of the helicopter overflights. The noise impacts would be sporadic and temporary and only for the duration of this project. General descriptions of the cumulative effects that occurred to select resources are described in the following paragraphs.

#### **4.11.1 Wildlife**

Long-term indirect cumulative effects on wildlife populations have occurred and would continue to occur. However, these effects, both beneficial and adverse, are difficult, if not impossible, to quantify. Reductions in and fragmentation of habitat from urban development, highway and road construction, off-road traffic, and conversion to farmland have undoubtedly created inter- and intra-species competition for available food and shelter and, eventually, slight reductions in some wildlife populations. Increased patrol activities have increased the potential for some wildlife specimens to be accidentally hit and killed. Such losses would not be expected to result in significant reductions to the populations.

The increase in USBP lighting along the border also could have produced some long-term cumulative effects, although the magnitude of these effects in some areas is not presently known. Some species, such as insectivorous bats, may benefit from the concentration of insects that would be attracted to the lights. Circadian rhythms of other diurnal species, however, may be disturbed enough that breeding or feeding patterns are skewed, causing synergistic physiological changes. Most lighting is placed near urban areas, thus, reducing the chances of indirect effects, if any, to wildlife populations.

#### **4.11.2 Sensitive Areas**

USBP operations have occurred in unique and sensitive areas such as National Parks and National Wildlife Refuges. The USBP is authorized and mandated by the U.S. Congress to enter any lands within 25 miles of the border during the pursuit of illegal entrants. Consequently, when UDAs or smugglers attempt to illegally enter the U.S. through these sensitive areas, the USBP agents must attempt to apprehend them. Close coordination and approval from the appropriate agencies would be required for any construction activity potentially affecting any unique or sensitive areas (i.e., wilderness areas, conservation areas, national parks, etc.) to ensure adverse effects would be avoided or substantially minimized. Likewise, the USBP routinely coordinates with all Federal land managers regarding their operations on or above the agencies' lands. The USBP maintains several Memoranda of Understanding (MOU) or Agreement (MOA) with various agencies that stipulate how the USBP will use the land.

The USBP, Yuma Sector has maintained coordination with the USFWS and the AF&G in their efforts to avoid pronghorn herds in air patrol corridors. The USBP receives weekly telemetry location data for the pronghorn herds on the Cabeza Prieta and the Barry M. Goldwater Range and avoid areas of pronghorn concentration, especially during the fawning period, unless human life is endangered. The USBP has also provided air assistance to the Cabeza Prieta in support of their management efforts for the pronghorn.

#### **4.11.3 Air Quality**

Vehicles and heavy equipment have produced air emissions; however, these have not resulted in significant cumulative impacts due to the short duration of the activities, the dispersion capabilities of the region, and the remote locations of most of the operations.

#### **4.12 Environmental Design Measures**

The USBP and USFWS have agreed to an emergency consultation, under Section 7, for this project. The USBP has agreed to the mitigation measures outlined below as part of the consultation:

1. There should be no additional helicopter patrols/missions as a result of this action and existing missions should not be expanded to include routine (mail delivery, supplies, breaks, etc.) landings at the trailers by USBP helicopters to minimize disturbance to the pronghorn;
2. All USBP vehicles should stay on established roads when possible;
3. The number of ground personnel and vehicles should be kept to a minimum;
4. Removal or destruction of vegetation should be minimized to the maximum extent possible;
5. At the completion of the operation, all trailers and other material will be removed, impacted areas will be revegetated and returned to as natural conditions as possible;
6. USBP will provide \$25,000 for support of placement and monitoring of temporary waters for the Sonoran pronghorn on the refuge and adjacent Federal lands to partially mitigate for the impacts of this action and to potentially draw affected animals away from the action area;

7. USBP will provide \$25,000 for quantification and monitoring of resource damage from past, current, and future UDA and drug smuggler activities, and responses to those actions by Federal law enforcement entities, and
8. To assist refuge staff in developing improved documentation of monthly law enforcement actions by USBP on the refuge through use of a standardized reporting system.

In addition, this EA has been tiered from the Final Supplemental Programmatic Environmental Impact Statement, INS and JTF-6 Activities, On the Southwest US/Mexican Border project, therefore have additional mitigation measures outlined. Several measures are the same as mentioned above. Additional ones included: minimize loss of vegetation, by trimming vegetation along roadsides rather than removing the entire plant; require vehicles to utilize road pullouts or other such disturbed areas; and consider the possibility of revegetative efforts. Other issues include to properly maintain all vehicles, generators and other equipment to ensure that air emissions are within the design standards of the equipment. These issues have been accepted by the USBP, therefore the Section 7, emergency consultation has been initiated (Appendix B).

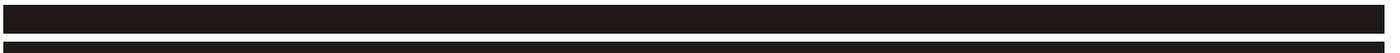
**SECTION 5.0**  
**REFERENCES**



## 5.0 REFERENCES

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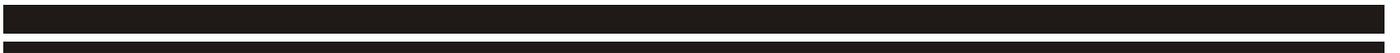
**SECTION 6.0**  
**LIST OF ACRONYMS/ABBREVIATIONS**



## 6.0 LIST OF ACRONYMS/ABBREVIATIONS

ADEQ	Arizona Department of Environmental Quality
AGL	Above ground level
AO	Area of Operations
AU	Arizona uplands
BLM	Bureau of Land Management
BMGR	Barry M. Goldwater Range
CFR	Code of Federal Regulations
CWA	Clean Water Act
CO	Carbon monoxide
dBA	Decibel—A-weighted scale
DoD	Department of Defense
E.O.	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FLIR	Forward-looking infrared
FY	Fiscal Year
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
MSL	Mean sea level
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
mph	Miles per hour
$\text{mg}/\text{m}^3$	Milligrams per cubic meter
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NPS	National Park Service
NEPA	National Environmental Policy Act of 1969
$\text{NO}_2$	Nitrogen Dioxide
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
$\text{O}_3$	Ozone
PCPI	Per capita personal income
$\text{PM}_{10}$	Particulate matter
Pb	Lead
POE	Port of Entry
POL	Petroleum, oils and lubricants
ppm	Parts per million
ROI	Region of influence
EA	Environmental Assessment—out of order
SHPO	State Historic Preservation Office
$\text{SO}_2$	Sulfur dioxide
UDA	Undocumented Alien
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USC	United States Code
USDOJ	U.S. Department of the Interior
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

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



## 7.0 LIST OF PREPARERS

The following people were primarily responsible for preparing this Environmental Assessment.

<b>Name</b>	<b>Agency/Organization</b>	<b>Discipline/Expertise</b>	<b>Experience</b>	<b>Role In Preparing EA</b>
Kevin Feeney	INS Headquarters	Environmental Planning and Management and Hazardous Waste	20 years of NEPA and hazardous waste studies	EA Review
Patience Patterson	U.S. Army Corps of Engineers	Archeology	29 years in archaeology and cultural resource management	Technical Manager, and EA review and Section 106 coordination
Chris Ingram	Gulf South Research Corporation	Biology/Ecology	23 years NEPA and related studies	EA Review
Suna Adam Knaus	Gulf South Research Corporation	Biology/Ecology	15 years NEPA and related studies	Project Manager
John Lindemuth	Gulf South Research Corporation	Archaeology/Project Archaeologist	10 years archaeological studies	Cultural resources and socioeconomics
Sharon Newman	Gulf South Research Corporation	GIS/Graphics	9 years GIS analysis	Graphics and GIS
Russ D'Hondt	INS Headquarters	Environmental Planning and Management	14 Years of Environmental and NEPA Project Management	EA Review
Denver Heath	INS A-E Resource Center	Contracting Management	10 years of project management	Program Manager and EA review and coordination
Charles Parsons	INS Western Region	Geology	25 years of geotechnical and environmental related studies	Program Manager, Review

## **APPENDIX A**





Photo 1: Damage done by illegal vehicle traffic



Photo 2: Damage done by illegal vehicle traffic



Photo 3: Abandoned Chevy van



Photo 4: Abandoned Ford pickup truck



Photo 5: Abandoned Mitsubishi van



Photo 6: Burned GMC van



Photo 7: Overturned van



Photo 8: Proposed trailer site at Bates Well site, Ajo station.



Photo 9: Historic structure at Bates Well site.

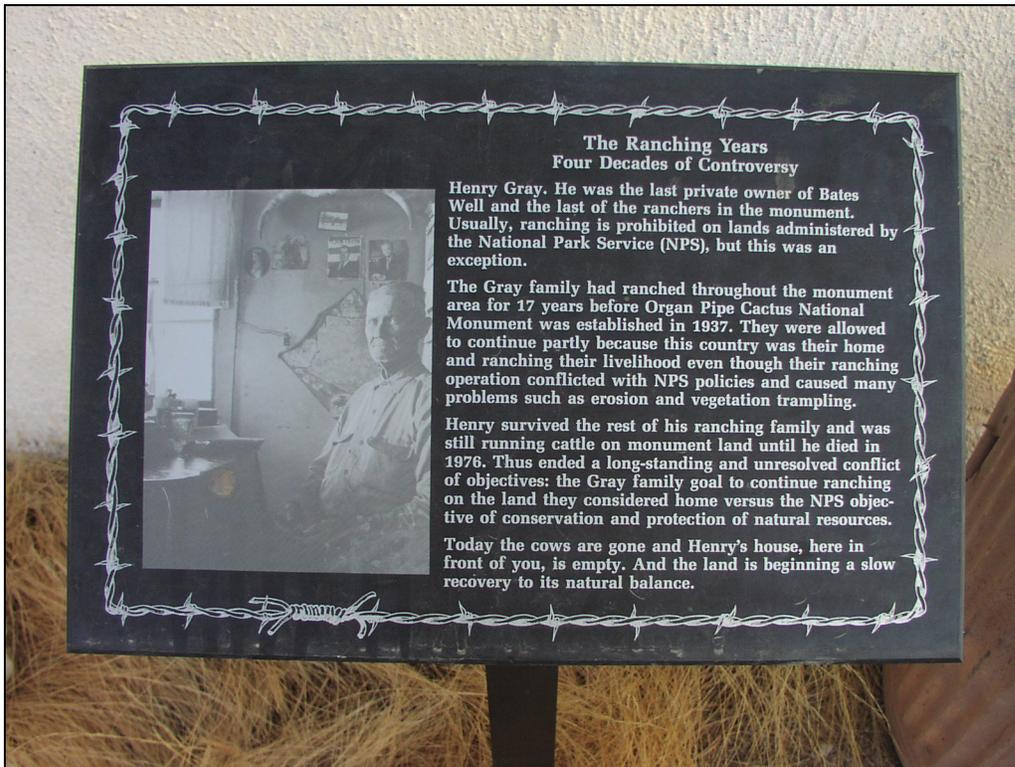


Photo 10: Plaque for structure at Bates Well site.



Photo 11: Alternate trailer site along Camino Del Diablo, Wellton station



Photo 12: Proposed trailer site along Camino Del Diablo, Wellton station

## **APPENDIX B**





U.S. Department of Justice  
Immigration and Naturalization Service

HQENG 10/9.26

425 I Street NW  
Washington, DC 20536

MAY - 8 2002

U.S. Fish and Wildlife Service  
ATTN: Mr. Dave Harlow  
2321 W. Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951

Dear Mr. Harlow

As you are aware, the Immigration and Naturalization Service (INS) and U.S. Border Patrol (USBP), Tucson and Yuma Sectors have implemented Operation Desert Grip within the Cabeza Prieta National Wildlife Refuge and Organ Pipe National Monument. Operation Desert Grip consists of the establishment of "temporary stations" consisting of two 27-foot travel trailers and temporarily assigning USBP agents to a 7-day rotational shift duty at the sites. Operation Desert Grip is projected to begin on May 5, 2002 conclude on September 30, 2002. Since the increased presence of the agents and their required equipment may affect Sonoran pronghorn, INS/USBP respectively requests initiation of formal Section 7 consultation under the emergency provisions.

Operation Desert Grip will encompass a 24-mile long corridor along the International boundary. This is a high visibility, high profile operation designed primarily to deter illegal entrants and thereby enhance border security while saving lives. All vehicles and walkers transiting this area are subject to USBP enforcement interest. This enhanced patrolling will significantly deter illegal activity in these target areas.

In the last two months, agents began witnessing a surge of illegal alien entries in the area of the Sonoran Desert west of Organ Pipe National Monument; more specifically, the area between Davidson Canyon and Los Vidrios on the Cabeza Prieta National Wildlife Refuge. There was no possible way to have predicted the scope or timing of this increase in illegal entries in these areas. These areas are extremely remote and inhospitable with no water or civilization from the U.S/Mexico border north to Interstate 8 (a distance of about 75 miles). Persons who attempt this crossing, whether by vehicle or by foot, may easily find themselves lost, disoriented and without sufficient water to survive. Constant USBP presence in these areas will have a deterrent effect upon illegal entries thus preventing further attempts in these geographically treacherous locations. Furthermore, if anyone should enter undetected, the USBP is one of the few entities equipped and prepared to mount a Search and Rescue operation. Having agents

pre-positioned in these areas would greatly expedite such activities, offering a better chance of survival.

Because of the remoteness of these areas, USBP agents require up to four to six hours to respond to what may be potentially a lifesaving effort. This fact necessitates adjusting the way in which USBP performs patrols in these areas. Federal law enforcement experts, based on sound evidence, have determined that if these actions are not taken in the time frame prescribed will result in significant increases in the number of deaths that result from illegal crossings.

Illegal entrants cause significant damage to protected areas. They typically display no concern for natural habitat or wildlife. Smugglers often deviate from established administrative roads causing severe damage to protected areas. They often abandon disabled vehicles and discard trash in sensitive areas with no regard to existing protections. Therefore, this operation is necessary in order to have a full time presence in these areas to close the windows of opportunity for smugglers or aliens to enter in the absence of regular patrols.

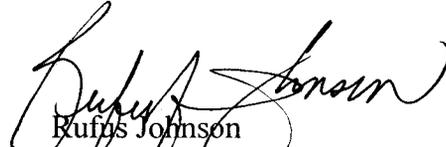
Although the presence of the USBP will benefit the Sonoran pronghorn by reducing or eliminating the alien/smuggler traffic, the INS/USBP acknowledge that their presence and the operation of the necessary equipment (e.g., vehicles, generators, etc.) also may affect, but not adversely affect, the Sonoran pronghorn. Therefore, INS/USBP agree to implement the eight measures discussed with your staff last week, as described below:

- There should be no additional non-emergency helicopter patrols/missions as a result of this action and existing missions should not be expanded to include routine (mail delivery, supplies, breaks, etc.) landings at the trailers by USBP helicopters to minimize disturbance to the pronghorn;
- All USBP vehicles should stay on established roads when possible;
- The number of ground personnel and vehicles should be kept to a minimum;
- Removal or destruction of vegetation should be minimized to the maximum extent possible;
- At the completion of the operation, all trailers and other material will be removed; impacted areas will be revegetated and returned to as natural conditions as possible;
- USBP will provide \$25,000 for support of placement and monitoring of temporary waters for the Sonoran pronghorn on the refuge and adjacent Federal lands to partially mitigate for the impacts of this action and to potentially draw affected animals away from the action area;
- USBP will provide \$25,000 for quantification and monitoring of resource damage from past, current, and future UDA and drug smuggler activities, and responses to those actions by Federal law enforcement entities, and

- To assist refuge staff in developing improved documentation of monthly law enforcement actions by USBP on the refuge through use of a standardized reporting system.

If you have any questions, or require additional information, please contact Mr. Russell D'Hondt at (202) 305-4386. Thank you for your prompt attention and cooperation.

Sincerely,



Rufus Johnson  
Acting Director  
Headquarters Facilities and  
Engineering Division

Enclosure

cc: Russ D'Hondt, HQ INS  
Charles Parsons, INS WRO  
Eric Verwers, INS AERC  
Randy Gallegos, HQ BOR  
Maurice Moore, Tucson Sector USBP  
Mark Haynes, Yuma Sector USBP  
Charles McGregor, USACE Fort Worth District  
Chris Ingram – Gulf South Research Corporation