

**Draft Programmatic Environmental Assessment  
for  
Expanded Border Patrol Activities  
at Ft. Huachuca, Arizona**



**U.S. Customs and  
Border Protection**

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

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**Draft Report – November, 2004**

FMC001152

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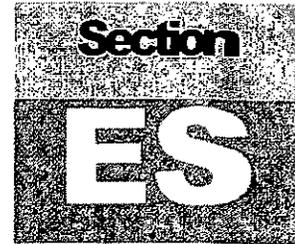
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## **Executive Summary**

### ***INTRODUCTION***

U.S. Customs and Border Protection, Office of Border Patrol, in the Department of Homeland Security, is charged with detecting and apprehending illegal aliens and contraband attempting to illegally enter the United States. One division of the OBP is the Tucson sector in Arizona, which has jurisdiction over 261 miles of the U.S.-Mexican border extending from the New Mexico border to the Yuma County line. With the Arizona border experiencing the highest volume of illegal border traffic anywhere in the United States, the challenge of protecting this border area is enormous. Moreover, it is a challenge that is multi-faceted and constantly evolving, as exemplified by the recent focus on terrorist threats in the wake of September 11, 2001.

In responding to this evolving challenge, the Tucson sector is proposing to expand its operations at the U.S. Army Garrison at Fort Huachuca (Ft. Huachuca), Arizona. Twelve specific program elements are identified as part of this undertaking. Some of these elements represent an expansion of existing activities at Ft. Huachuca while others are new. Generally, these activities fall into several major categories: increased training of OBP personnel on the Fort, including both classroom and field activities; increased OBP enforcement actions on the Fort itself, employing vehicles, horses, and foot patrols; and increased use of aircraft, including helicopters, manned aircraft, and unmanned aerial vehicles (UAVs). *This Programmatic Environmental Assessment (PEA) will analyze the potential impacts, both beneficial and adverse, which these activities may have on the environment at the Fort and in the surrounding area.*

### ***PURPOSE AND NEED FOR THE PROPOSED ACTION:***

The twelve different program elements evaluated in this PEA cannot be regarded as fulfilling a single "purpose and need", except in the broadest sense. All of the elements will strengthen the OBP's ability to fulfill its mission of deterring and apprehending illegal persons and contraband coming in to the U.S. from Mexico. However, on a more specific level there are multiple 'purposes' and 'needs'. One of the driving forces behind the expansion of OBP activities at Ft. Huachuca is the recently announced "Arizona Border Control Initiative" (ABCI) of the U.S. Department of Homeland Security (DHS). This initiative, announced on March 16, 2004, is an effort by DHS to improve the security of the physical borders of the United States in response to increased threats from terrorists, terrorist weapons, international drug trafficking, and illegal immigration. The ABCI initiative will adopt a multi-faceted approach of increasing enforcement personnel, enhancing technological capabilities, and improving coordination among the various

law enforcement and government agencies that operate in this complex environment. The expanded OBP activities at Ft. Huachuca evaluated in this PEA are in part a reflection of this broader strategy.

The ABCI initiation is not the only driving force behind the Proposed Action. Another goal is to expand the Tucson sector's enforcement presence at Ft. Huachuca itself, a response to a recent dramatic increase in the movement of illegal aliens (IAs) through Fort property. This trespass is causing extensive resource damage, including litter, threats to sensitive resources such as wetlands and endangered species, and the creation of unwanted trails. Additionally, the IAs pose a criminal threat to personnel at the Fort as well as citizens in the nearby communities. The Proposed Action addresses this trespass with significant increases in vehicle, horse, and foot patrols in the backcountry of the Fort.

A second set of Proposed Action elements will expand aircraft operations at Ft. Huachuca in support of both traditional OBP operations as well as Operation Skywatch II, a humanitarian rescue operation aimed at rescuing IAs during extreme summer conditions. Finally, other elements of the Proposed Action will allow the OBP to utilize the educational and training facilities of the Fort to train new personnel and enhance the skills of existing personnel in areas such as UAV operations, horse training, search and rescue, and the use of firearms.

## ***DESCRIPTION OF THE PROPOSED ACTION***

***Aircraft Operations:*** Three elements of the Proposed Action involve expanded aircraft operations at Libby Army Airfield (LAAF), where OBP currently stages 4 rotary and 2 fixed wing aircraft. First, there is a major expansion of manned aircraft operations at LAAF. This proposed operation will include 20 aircraft, 35 full-time employees, and a new hanger and other facilities on a site of 15 acres, the exact location of which has yet to be identified. This part of the Proposed Action evolved from a previous proposal, evaluated in an environmental assessment in 2003, which included 16 manned aircraft and new facilities on 6.7 acres on the municipal side of the airport. In addition to manned aircraft, the proposed air facilities will also house 4 unmanned aerial vehicles (UAVs) on a year-round basis, enlarging and making permanent a UAV test program that was conducted at LAAF over the past summer. Finally, four unused helicopter pads in the Huachuca Mountains will be cleared of overgrowth and refurbished to be used as-needed in support of rescue missions and other enforcement actions.

***Enforcement on the Fort:*** A second important category of proposed activities represents a major expansion of OPB enforcement actions on the premises of Ft. Huachuca, primarily in the backcountry. Foot patrols will be deployed 24/7, usually with 12 personnel, but expanding to 50 officers in response to critical situations. Horse and vehicle patrols will also be deployed on a daily basis, operating round-the-clock as circumstances dictate. This increased enforcement presence has become necessary in the face increasing IA traffic on Fort property in recent years.

***Education Programs:*** Five activities included in the Proposed Action involve education, training, and skills maintenance for OBP personnel. First, the OBP will take advantage of Ft. Huachuca's existing UAV school and facilities by establishing its own annual training program. Up to 25 students a year will enroll in a 23 week UAV training program, using the existing equipment, including several different UAVs. A second group of educational activities involve

enforcement training, including National BORSTAR (Border Patrol Search, Trauma, & Rescue) training, Special Response Team training, and horse patrol training. Additionally, OBP agents will use the firing range at the Fort to maintain and improve their skills in the use of firearms.

These training activities will bring up to 150 new people to the Fort throughout the year, although seldom at the same time. Some of this training, such as UAV flight training, will require students to remain in the area for extended periods, utilizing either housing on the Fort or in the nearby communities. Other courses, such as horse training, will only use the Fort during the day with students commuting in from other areas. In general, this training will use facilities already in existence on the Fort, although some minor facilities may have to be built to support the horse training operations.

### ***OTHER ALTERNATIVES EVALUATED:***

Other potential alternatives were considered in this analysis, although none were carried forward for detailed consideration with the exception of the No Action alternative. First, an initial evaluation was made of the potential for deploying additional OBP manpower in the border area south of Ft. Huachuca. Such an alternative, if practical, would serve to interdict IAs and contraband before they can enter the Huachuca Mountains and the Fort itself. However, this alternative was not evaluated in depth because road conditions and terrain make patrolling this area both costly and relatively ineffective. A second subset of alternatives was also considered, comprised of different combinations of the various Proposed Action elements. Again, none of these alternatives was ultimately presented for additional analysis. In this case, it was concluded that an analysis of all elements in the Proposed Action would uncover all the potential environmental consequences of any subset of those same elements. Accordingly, analyzing the impacts of only a handful of Proposed Action elements would be redundant.

### ***NO ACTION ALTERNATIVE:***

Council for Environmental Quality (CEQ) regulations require that the proponent of a project must evaluate the “No Action” alternative. Under this scenario, OBP patrols and aircraft operations at Ft. Huachuca would remain at current levels, and no additional training of personnel would occur at the Fort. Any environmental impacts, either positive or negative, that might arise from those actions would not occur. The movement of IAs through Fort property would continue at present levels or increase, and the damage IAs cause to the Fort’s environment would not be reduced.

### ***ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND ALTERNATIVES:***

The analysis in the PEA examined potential effects that the Proposed Action would have on environmental resources in 12 different categories. Additionally, it evaluated the potential for cumulative impacts that might arise from the combined effects of the Proposed Action and the foreseeable actions of any other entity in the region. Ultimately, the analysis reached the conclusion that the Proposed Action would not result in significant environment impacts – direct,

indirect, or cumulative --to any resource on the Fort or in the surrounding region. The major points of this analysis are as follows:

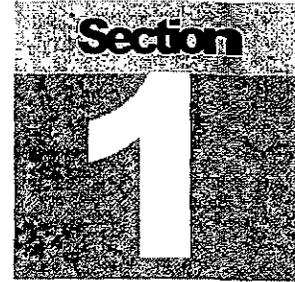
- Increased OBP patrols in the backcountry of the Fort have no potential to impact wildlife or other sensitive resources, except in unavoidable cases where OBP personnel are forced to pursue IAs off-road.
- Impacts from OBP operations to endangered species and critical habitat will be evaluated and mitigated through ongoing consultations with the USFWS, so those issues are not presented in this PEA
- The Proposed Action will bring new OBP personnel to the Fort and the Sierra Vista area, including nearly 70 full-time employees. These people will have a positive economic impact on the area, but there are concerns about population impacts on the quality of life and sensitive environmental resources such as the San Pedro River National Conservation Area (SPRNCA). The OBP will contribute funds to the Ft. Huachuca water conservation program in order to fund conservation measures that will offset increased consumption.
- The Proposed Action will cause minor increases in air pollution from vehicles and aircraft, but with excellent air quality in the region these increases will be negligible.
- Increased aircraft and helicopter flights will create some additional noise around Libby Army Airfield and over sensitive areas along the border such as wilderness, but these impacts will not be significant.
- The Proposed Action will have very minor impacts to other resources evaluated, including health and safety, hazardous materials, soils, and cultural resources.
- Most of the impacts from the Proposed Action occur on the premises of Ft. Huachuca, so there is little potential for cumulative impacts elsewhere. OBP patrols may move IAs off the Fort and into other areas, but the location and potential impacts from such displacement cannot be predicted.

### ***SUMMARY OF MITIGATION ACTIONS PLANNED:***

In order to reduce any potential environmental effects from the Proposed Action, significant or not, the OBP will undertake and embrace a number of strategies. Here's a partial list of the proposed mitigation measures:

- The OBP horses will be fed weed-free hay to prevent the spread of noxious weeds and they will be required to be in compliance with veterinary practices of Ft. Huachuca
- The OBP will contribute funds to the Ft. Huachuca water conservation program in order to fund conservation measures that will offset increased consumption.

- Impacts from OBP operations to endangered species and critical habitat will be evaluated and mitigated through ongoing consultations with the USFWS
- Training of personnel will include training in environmental sensitivity, such as avoiding threatened and endangered species and sensitive archeological resources and sensitive habitat.
- OBP personnel will be instructed to keep foot traffic and horses out of Garden Canyon Creek and other sensitive wetland areas
- OBP will be required to provide funding for Ft. Huachuca's water mitigation program.



# 1 INTRODUCTION

This document is a Programmatic Environmental Assessment (PEA) that analyzes the potential environmental impacts, beneficial and adverse, of expanding the operations of the Office of Border Patrol (OBP) at the U.S. Army Garrison at Fort Huachuca (Ft. Huachuca), Arizona. Twelve specific program elements are identified and evaluated in this analysis. Some of these elements represent an expansion of existing activities at Ft. Huachuca while others are new. Generally, these activities fall into several major categories: increased training of OBP personnel on the Fort, including both classroom and field activities; increased use of the Fort for routine OBP enforcement activities, with vehicles, horses, and foot patrols; and increased use of aircraft, including helicopters, manned aircraft, and unmanned aerial vehicles (UAVs).

One of the driving forces behind the expansion of OBP activities at Ft. Huachuca is the recently announced "Arizona Border Control Initiative" (ABCI) of the U.S. Department of Homeland Security (DHS). This initiative, announced on March 16, 2004, is an effort by DHS to improve the security of the physical borders of the United States in response to increased threats from terrorists, terrorist weapons, international drug trafficking, and illegal immigration. The ABCI initiative will adopt a multi-faceted approach of increasing enforcement personnel, enhancing technological capabilities, and improving coordination among the various law enforcement and government agencies that operate in this complex environment. The expanded OBP activities at Ft. Huachuca evaluated in this PEA reflect this broader strategy.

## ***1.1 OFFICE OF BORDER PATROL (OBP)***

The OBP, formerly of the legacy Immigration and Naturalization Service (INS), is now a part of the U.S. Customs and Border Protection in the Department of Homeland Security. As the primary Federal law enforcement agency between the ports of entry, the mission of the OBP is to protect the U.S./Mexico International boundary through the detection, interdiction, and apprehension of terrorists and those who attempt to illegally enter the U.S. or smuggle persons or contraband across our borders. The OBP is responsible for securing approximately 4,000 miles of border with Canada and 2,000 miles of border with Mexico. Within the state of Arizona, the OBP is divided into two sectors -- the Tucson Sector and Yuma sector. The Tucson Sector has jurisdiction over 261 miles of the U.S.-Mexican border extending from the New Mexico border to Yuma County line. This document evaluates Border Patrol (OBP) activities exclusively within the Tucson sector.

The Arizona border experiences the highest volume of illegal border traffic anywhere in the United States. While the greatest component of this traffic is still comprised of relatively harmless individuals seeking employment in the United States, it also includes an evolving mix of people and contraband that represent a serious threat to U.S. society. For example, the criminal smuggling organizations (coyotes) that assist the illegal aliens (IAs) threaten the safety of OBP officers and provide conduits for the movement of drugs and other contraband. Of even greater concern is the possibility that international terrorist organizations will use these same criminal networks to enter the continental U.S.

The Tucson sector utilizes a variety of methods to detect and deter terrorists, IAs, and smugglers. Deterrence is accomplished through the actual presence (24 hours per day, 7 days per week) of the OBP agents on the border and other physical barriers (natural and man-made), lighting, and the knowledge that the IAs will be detected and apprehended. Detection of the IAs and contraband is accomplished through a variety of low- and high-technology approaches. These include observing physical signs of illegal entry (vehicle tracks and footprints, clothes, etc.), visual observation of the illegal aliens from the ground or from aerial reconnaissance, operation of checkpoints, information provided by the general public, ground sensors, and remote video surveillance (RVS) systems.

## ***1.2 FORT HUACHUCA***

Ft. Huachuca is the major military installation in Arizona and one of the largest in the southwest U.S. The Fort comprises approximately 72,000 acres and is located 55 miles southeast of Tucson on the northwest side of the Huachuca Mountains. It was established in 1882 as a component in the Indian Wars. Presently, Ft. Huachuca is the home of the United States Army Intelligence Center (USAIC) that trains military intelligence professionals for the Military Intelligence Corps, the Army, and the Marine Corps.

## ***1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION***

The twelve different program elements contained in this PEA cannot be neatly characterized as fulfilling a single 'purpose and need'. In the broadest sense, all of the elements will strengthen the OBP's ability to fulfill its mission of deterring and apprehending illegal persons and contraband coming into the U.S. from Mexico. However, on a more specific level there are multiple 'purposes' and 'needs'. First, one important purpose of the Proposed Action is to expand the Tucson sector's enforcement presence at Ft. Huachuca as a necessary response to recent dramatic increase in IAs moving through Fort property. This trespass is causing numerous resource impacts, including litter, the creation of new trails, and threats to sensitive resources such as wetlands and endangered species. Additionally, the IAs represent a real and potential threat to personnel at the Fort as well as citizens in the nearby communities. Increased arrest and detention of the IAs on Fort property is expected to reduce this trespass and the problems associated with it.

Another purpose is to expand aircraft operations at Ft. Huachuca in support of the enforcement goals of the ABCI initiative as well as the humanitarian rescue efforts of Operation Skywatch II. Finally, other elements of the Proposed Action will allow the OBP to utilize the educational and

training facilities of the Fort to train new personnel and enhance the skills of existing personnel in areas such as UAV operations, horse training, search and rescue, and the use of firearms.

#### ***1.4 PUBLIC INVOLVEMENT***

Public involvement is a critical and indispensable component of the National Environmental Policy Act (NEPA). Accordingly, this PEA and the resulting decision document -- either a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to complete an Environmental Impact Statement (EIS) -- will be made available to agencies and the general public for review and comment. A Notification of Availability (NOA) will be published in applicable local newspapers and copies of the PEA made available to the general public at local libraries.

Additionally, the entire document will be made available on a governmental world wide website, the details of which will be advertised through a variety of media, both locally and nationally.

For further information on the Proposed Action or to request a copy of the PEA, please contact: Mr. Darrell Mensel, 1436 South Legend Hills Drive, Suite 105, Clearfield, Utah 84015 or by e-mail at: dmensel@orgstrategies.com.

#### ***1.5 FRAMEWORK FOR ANALYSIS***

NEPA requires that agencies of the Federal government implement an environmental impact analysis program in order to evaluate "...major Federal actions significantly affecting the human environment." This PEA is intended to be a concise public document that provides sufficient data and analysis for determining whether such "significant impacts" will result from the Proposed Action. This analysis then becomes the basis for preparing either a full Environmental Impact Statement (EIS) or issuing a Finding of No Significant Impact (FONSI).

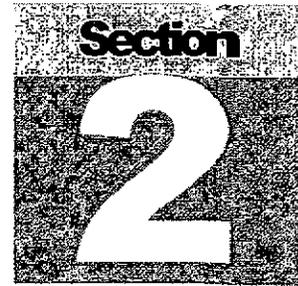
This PEA was prepared in compliance with the following regulations and directives:

- National Environmental Policy Act (NEPA), (42 U.S.C. 4321)
- Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508)
- Legacy INS Procedures Relating to the Implementation of NEPA (28 CFR Part 61, Appendix C).
- Army Regulation 200-2 (32 CFR651)
- In addition to these NEPA regulations, this PEA responds to the following Executive Orders:
- E.O. 13045 – “Protection of Children from Environmental Health Risks and Safety Risks”
- E.O. 12898 – “Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations

- E.O. 11990 – “Protection of Wetlands”
- E.O. 11988 – “Floodplain Management”

To reduce paperwork and facilitate public involvement, NEPA regulations encourage environmental analyses to incorporate prior environmental documents and analysis by reference rather than reprinting large amounts of information. Section 6, References, contains a list of documents that are incorporated by reference into this PEA, as well as information indicating where those documents may be found and viewed by the public and agencies. Where information from these documents is being incorporated into this PEA, it will be noted in the text. Appendix A contains a breakdown of personnel expected to come to Ft. Huachuca and the surrounding area as a result of the Proposed Action, along with anticipated water consumption as a result. Appendix B contains copies of correspondence sent out to various agencies in anticipation of the release of this draft document.

In addition to the evaluation for potential direct and indirect impacts on the above resources, the proposed activities were also evaluated for cumulative impacts on the environment as described in 3.14 Cumulative Impacts.



## **2 Description of Proposed Action and Alternatives**

### ***2.1 INTRODUCTION***

This section provides a detailed description of the Proposed Action, other considered alternatives, and the No Action alternative in order to identify potentially affected environments and potential impacts to those environments. Basically, the OBP is proposing to undertake a program that will expand a number of different activities at Ft. Huachuca. As stated above, this program expansion responds to a dramatic increase in IAs on the Fort property itself as well as to a broader national effort to increase border security through additional personnel, new tactical approaches, and improved cooperation among various government agencies.

These proposed program activities can be broken out into several different categories. First, there are a number of training activities under consideration, including joint use of the Unmanned Aerial Vehicle (UAV) School, National BORSTAR (Border Patrol Search, Trauma, & Rescue) training, Special Response Team training, and horse patrol training. Additionally, OBP agents will use the firing range at the Fort to maintain and improve their skills in the use of firearms. These training activities will bring up to 150 temporary people to the Fort throughout the year, although seldom at the same time. Some of this training, such as UAV flight training, will require students to remain in the area for extended periods, utilizing either housing on the Fort or in the nearby communities. Other courses, such as horse training, will only use the Fort during the day with students commuting in from other areas. In general, this training will use facilities already in existence on the Fort, although some minor facilities may have to be built to support the horse training operations

A second category of proposed activities involves the increased use and deployment of aircraft, including helicopters, manned aircraft, and UAVs. These activities have the potential to bring 69 permanent people to the Fort, people who may relocate to the area along with their families. Moreover, the increased air traffic will bring potential noise problems and other conflicts, such as mid-air collisions with bats and birds. The potential environmental impacts resulting from this increase in air traffic have been evaluated in part in a number of prior environmental documents, as noted in Section 3 of this document.

A third important category of proposed activities will involve an increase in OBP enforcement actions on the premises of Ft. Huachuca itself. This increase has become necessary in the face of a dramatic increase IA traffic on the Fort in recent years as fences and enforcement actions in

other areas have made the Fort an attractive crossing route. This increase in patrolling activities will bring additional personnel, vehicles, and horses to the Fort as needs dictate.

In varying degrees, each of the proposed activities brings with it the potential for causing environmental impacts to the premises of Ft. Huachuca and the surrounding area. The purpose of Section 3 of this PEA is to identify such potential harm and evaluate whether it constitutes a "significant impact" as defined in the context of the National Environmental Policy Act (NEPA). The usual approach, as taken in this document, is to divide the analysis into various "resource" categories, such as biological resources, and then look for potential impacts within each of these categories. These categories, along with the potential impacts, are presented in Section 3.

In order to reduce the potential for such impacts and the need for subsequent mitigation, the proposed activities will be required to follow certain protocols that will be written into the Proposed Action elements themselves.

Here is a partial list of these critical protocols:

- Horses will be fed certified weed-free hay in order to prevent the spread of noxious weeds on the premises.
- OBP horses will need to be in compliance with Army veterinary practices for inoculations and other requirements.
- Training of personnel will include training in environmental sensitivity, such as avoiding threatened and endangered species and their sensitive habitat areas.
- Personnel training will include identifying areas known to contain archeological resources and avoiding such areas
- OBP personnel will be instructed to keep foot traffic and horses out of Garden Canyon Creek and other sensitive wetland areas
- Access routes to helicopter sites will be designated to avoid conflicts with the Mexican spotted owl
- OBP will provide funding for water mitigation for OBP personnel.
- As part of the Proposed Action, helicopter pilots will be instructed to land and take off on an angle to reduce dust dispersion.
- OBP will commit to working closely with USFWS and other resource agencies to mitigate any damage caused to sensitive areas such as wetlands and critical habitat

These and other requirements may also be specified in future agreements between the OBP and the U.S. Fish & Wildlife Service (USFWS). Currently, the OBP is engaged with the USFWS in a informal consultation process, as defined under the Endangered Species Act (ESA), with respect to OBP activities in the Tucson sector. The activities evaluated in this document will be part of this consultation process and any mitigation requirements or operational constraints adopted through that process will be incorporated by reference herein.

## 2.2 PROPOSED ACTION

The following subsections describe the twelve program elements being considered under the Proposed Action as well as a list of resource areas evaluated for potential environmental impacts:

### 2.2.1 Unmanned Aerial Vehicle School

OBP is proposing to send personnel from its Sonoita and Naco stations to be trained through the existing UAV school that is in operation at Ft. Huachuca. If this were to occur, it is expected that the training program would last up to 23 weeks and include up to 25 students. This program would not alter the current activities at the school because OBP trainees would use the existing equipment, including the Hunter and other UAVs already there. OBP trainees would also be trained in interpreting UAV data by using the existing UAV data. There would be no permanent personnel stationed at the Fort or in the surrounding area as part of this future program.

#### *Potential impact considerations identified in scoping:*

Socioeconomics	Roads, Services, Utilities, & Water	
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Students in this program will also cause minor increases in the use of infrastructure at Ft. Huachuca such as electrical, gas, water, and wastewater treatment. They will also have a minor effect on the socioeconomics of the area through their spending at local businesses and perhaps through the rental of local housing units. These effects would be small in comparison to the size of the local economy and the capacity of the local infrastructure, so no significant impacts would be expected. However, the cumulative socioeconomic, infrastructure, water consumption impacts of all the OBP activities in the Proposed Action will be evaluated. Otherwise, no further evaluation of UAV school impacts is warranted.

### 2.2.2 Permanent UAV Operations at Ft. Huachuca:

The OBP recently conducted a testing program to evaluate the safety and usefulness of employing the Hermes 450 or other medium UAVs on a permanent basis at Libby Army Airfield (LAAF). Two aircraft were tested for a 125 day period running from June through September, 2004. The Proposed Action makes this a permanent program that deploys 4 aircraft out of LAAF on a year-round basis, 24-hours per day. This permanent operation would potentially require additional facilities that would be combined with the proposed facilities expansion for OBP manned aircraft operations (see 2.1.3. below).

At full operation, this program would also require up to 29 full-time personnel assigned to Ft. Huachuca. Up to four of these additional personnel would be air traffic controllers needed at the LAAF to support the increased length of the operational day and to meet Federal Aviation Administration (FAA) safety requirements for unmanned flights. The exact number of personnel will be based on the additional mission requirements. Additionally, the FAA certification process requires that these additional air traffic controllers be trained at Ft. Huachuca in the tower for up to one year before they can operate unsupervised.

Environmental impacts from the 2004 UAV testing program at LAAF were evaluated in “U.S. Customs and Border Protection (OBP), 2004. *Supplemental Environmental Assessment: Operation Skywatch II -- Initial Field Test of the Unmanned Aerial Vehicle*. Final Report, June 2004”. Additional environmental analysis on the impact of using laser tracking devices on the UAVs was presented in “U.S. Customs and Border Protection (OBP), September 2004. *Supplemental Environmental Assessment Operation Skywatch II – Unmanned Aerial Vehicle Initial Field Test with Laser Aiming Lights*”. Analysis and details of the environmental impacts included in these documents are incorporated herein by reference.

The analysis presented in OBP Skywatch 2004 included the following basic details of UAV operations and flight corridors. First, UAVs will circle in the airspace above LAAF until they reach the correct altitude, at which time they will head due south to U.S. Mexican border. Once they reach the border, they will fly within a narrow 4 nautical mile band north of the border, extending from the New Mexico/Arizona state line to the Pima/Yuma county line west of Lukeville, Arizona. UAVs generally fly at an approximate altitude of 9,500 feet above mean sea level (AMSL). However, when necessary to track suspected IAs, or to employ the laser aiming lights, the UAVs will drop down as low as 620 feet off the ground, and they may also fly in circles if necessary. The lower limit of 620 feet has been established to eliminate the possibility that lasers will damage the eyesight of animals or people in the area.

***Potential Impact Considerations Identified in Scoping:***

Land Use	Biological Resources	Hydrology & Water Resources
Air Quality	Noise	Soils
Socioeconomics	Human Health & Safety	Roads, Services, Utilities, & Water
Hazardous Materials	Cultural Resources	

It is expected that facilities for a permanent UAV program would be built in conjunction with expanded manned aircraft operations, so potential conflicts with land use and planning, soils, cultural resources, and biological resources will be evaluated in conjunction with the manned aircraft operations. The UAV operations may impact air quality, noise, hazardous materials, and health and safety, so these impacts will be evaluated in their respective sections. Additional personnel required for permanent UAV operations will have an impact on public services, wastewater treatment, water consumption, and the local economy. These issues will also be evaluated in the following sections.

The potential exists for expanded UAV operations across the entire southern border between the U.S. and Mexico. If that occurs, additional environmental documentation for other sites and facilities will need to be prepared at that time, along with additional consultations between the OBP and the USFWS concerning potential impacts to federally listed species from such expanded operations.

**2.2.3 Expanded manned aircraft operations:**

The OBP is considering an expansion of its manned aircraft operations at LAAF. Although plans for this expanded facility have not been finalized, the most likely location would be along the north side of LAAF. These new facilities would potentially occupy up to 15 acres with buildings for operations, storage, maintenance, and ancillary support needs. Up to 20 aircraft, 35 full-time employees, and 5 part-time/occasional personnel would potentially be employed to conduct operations on a 24/7 schedule. Any new facilities needed for expanded UAV operations would be combined in this development.

No 24-hour domicile or 24-hour detention facilities will be located on Fort Huachuca as part of this expanded operation. Permanent employees in this operation, with or without families, will either commute from their current residences or find housing in Sierra Vista or other surrounding communities.

***Potential Impact Considerations Identified in Scoping:***

Land Use	Biological Resources	Air Quality
Noise	Soils	Socioeconomics
Roads, Services, Utilities, & Water	Hazardous Materials	Cultural Resources

A previous proposed expansion of OBP manned aircraft operations at FH was evaluated in a document titled: “U.S. Immigration and Naturalization Service. *Final Report, Environmental Assessment for the Expansion of U.S. Border Patrol Air Operations and Facilities*” (U.S. Border Patrol Tucson Sector, Arizona. January 2003). This document evaluated a potential expansion of facilities on up to 10 acres of land adjacent to LAAF, the employment of an additional 8 new personnel and the deployment of an additional 10 aircraft. A FONSI was issued on this proposed project. The current Proposed Action represents a modest expansion of the facilities evaluated in INS Air Operations 2003 -- 15 acres of land disturbance as opposed to 10, 20 aircraft instead of 16, 35 personnel rather than 15, and up to 5 part-time/occasional personnel. Insofar as the previous analysis is still applicable to the current proposal, it will be referenced and incorporated herein.

The current proposal for expanded air facilities is larger, both in acreage and personnel, than the previous manned aircraft expansion evaluated in 2003. Some details of the new proposal, such as numbers of new personnel and numbers of new aircraft, both fixed wing and rotary, are known at the present time. However, other details, such as the exact location for the project, are not known. Where details are defined, impacts will be evaluated in the resource sections below. For example, impacts of new personnel on utilities, water consumption, socioeconomics, air quality, and other resource categories will be included. Where details are not known, such as site specific characteristics relating to impacts on soils, vegetation, and endangered species, no

analysis will be presented. These issues will need to be evaluated in a supplemental environmental document to the original EA prepared in 2003 when a specific site is chosen.

### 2.2.4 National BORSTAR Training at Fort Huachuca

OBP is proposing to use Fort Huachuca as a base for conducting BORSTAR (Border Patrol Search, Trauma and Rescue) training. The plan is to conduct up to 5 classes per year of approximately 6 weeks in duration and hosting up to 65 personnel per class, including instructors. This program anticipates using existing facilities at Ft. Huachuca. Participants may live on or off post depending on the availability of housing.

BORSTAR training is primarily held in classrooms; however, it is expected that each course will also involve 1 to 2 days of practical exercises in the mountainous areas of Ft. Huachuca, or the more arid terrain of the East Range. The needs of the OBP and Army mission requirements at the time will determine the location of the field training. Helicopters, UAVs and other ground and air support vehicles may be included in this training. The OBP will closely coordinate with Ft. Huachuca staff in determining the timing, location, and other parameters of any field training. All trainees will be given instructions in avoiding or minimizing impacts to areas with sensitive archeological and environmental resources.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	Hydrology and Water Resources	Air Quality
Noise	Socioeconomics	Roads, Services, Utilities & Water
Cultural Resources	Cumulative Impacts	

The use of existing facilities, classrooms, and available housing at Ft. Huachuca will have an impact on infrastructure, water consumption, and utilities; these impacts will be evaluated in the respective resource sections below. The outdoor training will cause a minor increase in fugitive dust on roads and trails in the area, but not enough to warrant further evaluation. The movement of trainees and support vehicles through the backcountry of Ft. Huachuca could potentially impact ESA-listed species, critical habitat, and archeological resources. Helicopters will create additional noise and dust on the base. These impacts are assessed in the following sections.

### 2.2.5 Special Response Team Training

The OBP is proposing to use the facilities at Ft. Huachuca to conduct Special Response Team training. It is anticipated that these courses could be conducted up to 3 times per year, last for 15 days each, and include up to 35 participants per class, including instructors. Adequate facilities already exist at Ft. Huachuca to conduct this specialized training, so no additional facilities construction will be necessary.

If feasible, participants in the program will be housed on the post. The program will also use the small arms ranges at Ft. Huachuca for firearms training. There will be some use of the rugged

backcountry areas of Ft. Huachuca for on-foot training, either during the day or night. Proficiency training for night firing may be part of this program. All trainees will be given instructions in avoiding or minimizing impacts to areas with sensitive archeological and environmental resources.

***Potential Impact Considerations Identified in Scoping:***

Biological Resources	Hydrology and Water Resources	Air Quality
Socioeconomics	Roads, Services, Utilities, & Water	Cultural Resources

Impact considerations are the same as for BORSTAR training. These issues will be evaluated below.

**2.2.6 Horse Training**

The OBP is proposing to utilize Ft. Huachuca facilities -- including the Wren Arena area and the backcountry trails -- to conduct horse training courses for personnel. This program could include up to 11 classes per year, 3 weeks each, with temporary classroom facilities constructed in the Wren Arena area. Each class will feature up to three backcountry practice patrols, using existing trails and roads, and will have up to 25 participants including instructors. Trainees will be instructed not to ride horses in Garden Creek and adjacent riparian areas and to avoid other sensitive environmental and archeological sites.

Horses may be rented from the Buffalo Corral if available, or else brought in by OBP. If horses are brought in from off the Fort, they will be required to be in compliance with Army veterinary practices. Horses will be maintained overnight on post in coordination with the Buffalo Corral. Feed for OBP horses will be provided by OBP, and will be required to be certified weed-free.

***Potential Impact Considerations Identified in Scoping:***

Biological Resources	Hydrology and Water	Air Quality
Soils	Socioeconomics	Roads, Services, Utilities, & Water
Cultural Resources		

Bringing additional personnel to Ft. Huachuca for horse training will have impacts on water consumption, utilities, roads, waste water treatment, and the area economy. These will be evaluated in their respective resource categories in aggregate with other similar impacts. Grading and trenching for the placement of temporary facilities in the Wren Arena will create minor soil disturbances, noise, and dust, but these should not be significant. Trainees will remain on trails when in Ft. Huachuca backcountry, so there will be no damage to archeological resources, sensitive riparian and wetland areas, and no conflicts with ESA species. Certified

weed-free feed and Army veterinary requirements should prevent the spread of disease, invasive species, and weeds to the Ft. Huachuca backcountry. There may be minor increases in soil erosion from use of the trails, but this will not be measurable. No further evaluation of these issues is warranted.

Horses will also increase water consumption. This consumption will be calculated and mitigated through procedures as identified in Section 3.4 below.

**2.2.7 Routine OBP Horse Patrols on Ft. Huachuca**

As part of a broader effort to expand and diversify OBP enforcement activities at Ft. Huachuca, the OBP proposes to begin an expanded program of routine horse patrols on the Fort. This program may utilize up to 12 OBP horses which will be brought onto the Fort as needed in trailers. OBP personnel will not be relocated to the base for this activity but will come from their existing locations on an as-needed basis. Horse patrols will occur daily, possibly around the clock in 8 hour shifts. Horses used in these operations will be required to be in compliance with Army veterinary practices and to be fed certified weed-free hay.

The horse patrols will use existing roads and trails during routine patrols. As with other OBP operations that use the Ft. Huachuca backcountry, these horseback personnel will be trained to avoid areas where horses could disturb archeological sites or sensitive species and habitat, such as in Garden Creek. There may be occasions where it will be necessary for OBP officers to ride horses off-trail in ‘hot pursuit’ of suspects, which could result in damage to wetlands or other sensitive areas.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	Hydrology and Water Resources	Soils, Geology, Topography
Cultural Resources		

The use of horses and trailers on dirt roads on Ft. Huachuca will create some additional minor fugitive dust, but this should not be significant. There may be minor increases in soil erosion from use of the trails, as well as a possible reduction in use of illegal trails by IAs. These issues will be evaluated in Section 3.7. There is a small statistical probability that sparks from horseshoes could cause a fire in the backcountry, but this is extremely unlikely and is not anticipated to be significant. There is a possibility that ‘hot pursuit’ of suspects could take horse patrols through sensitive areas, including critical habitat for endangered species and wetlands. Impacts to endangered species and critical habitat from ‘hot pursuit’ will be evaluated, via surveys, and addressed in ongoing consultations between the OBP and the USFWS. Other resource damage will be evaluated in Section 3.3 below.

Horses and associated OBP personnel will consume some water that will need to be mitigated through contributions to the Ft. Huachuca water conservation program (Section 3.4).

**2.2.8 Pedestrian Operations**

The OBP intends to begin using foot patrol agents throughout Ft. Huachuca as part of an expanded enforcement operation on the Fort. Primary operations will use existing trails, although there may be times when the foot patrols are required to leave the trail in “hot pursuit” of suspects. The number of officers in the field at any one time will be determined on an as needed basis by OBP. It is anticipated that the average number of foot patrol agents at any one time will be less than 12; however this number may increase up to 50 agents in response to a specific incident. As with all OBP personnel on the Fort, foot patrol agents will be trained to recognize and avoid archeologically and environmentally sensitive areas.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	Hydrology and Water Resources	Soils
Cultural Resources		

OBP agents on foot patrols will come from their existing locations, so there will be no local impacts to utilities and housing. There may be small increases in the use of water at the Fort, which will be mitigated through contributions to the Fort’s water conservation program (See Section 3.4 below). There may be negligible, occasional impacts to the local economy, which will not be evaluated further. Also, there may be minor increases in soil erosion from use of the trails, which will be evaluated below in Section 3.7. Potential damage to endangered species or critical habitat from ‘hot pursuit’ actions will be evaluated, via surveys, and addressed through consultations between the USFWS and OPB; other potential resource impacts will be evaluated in Section 3.3 below.

**2.2.9 Vehicle Operations**

The OBP will begin using commercial-style vehicles for routine patrol operations on the existing roads and trails of Ft. Huachuca, both day and night. These vehicles could include a variety of different vehicles, including regular patrol vehicles, vans for transporting IAs, and all-terrain vehicles (ATVs) and motorcycles.

Drivers of these vehicles will be trained to avoid areas with sensitive archeological and environmental resources. However, there may be occasions when these vehicles will need to leave the trail in “hot pursuit” of IAs or for rescue operations.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	Hydrology and Water Resources	Air Quality
Noise	Soils	Cultural Resources

Use of backcountry roads and trails by patrol vehicles could increase soil erosion and fugitive dust emissions in the area. These issues will be evaluated in Sections 3.7 and 3.5 respectively.

Vehicles will cause additional air emissions, but the emissions will not be significant, so they will not be evaluated further. Potential impacts to endangered species or critical habitat from these ‘hot pursuit’ enforcement actions will be evaluated, via surveys, and addressed in ongoing Section 7 consultations between the OBP and USFWS; other potential biological resource impacts from ‘hot pursuit’ will be evaluated in Section 3.3 below. OBP personnel will use additional water resources at the Fort, which will require contributions to the water conservation program (Section 3.4).

**2.2.10 Small Arms Range Use**

OBP agents will begin using the existing firing ranges at Ft. Huachuca on a weekly basis to maintain and upgrade their weapons proficiency.

*Potential Impact Considerations Identified in Scoping:*

Roads, Services, Utilities, & Water
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OBP agents who visit Ft. Huachuca for firearms training will have minor impacts on roads, utilities, and the local economy, but these will not be significant, so no further evaluation will be made. These agents will consume additional water at the Fort, which will be calculated and mitigated through contributions to the Fort’s water conservation program (Section 3.4). There is a statistically small possibility that a fire could be started by a bullet that sparks off a rock; however, the chance of this happening is so remote, that no further evaluation is warranted.

**2.2.11 Helicopter Operations in the Huachuca Mountains on Ft. Huachuca**

OBP intends to restore and begin using up to 4 existing helicopter pads in the Huachuca Mountains on the premises of Ft. Huachuca. This program will require an initial effort to clear the pads and the surrounding area of brush and debris and otherwise restore the pads to a fully functional condition. Existing roads will be used to access the helicopter pads during the restoration work as well as during the operational phase.

The OBP does not envision any ‘regular’ helicopter operations at Ft. Huachuca. Accordingly, the restored pads will be used on an as-needed basis in support of other enforcement actions, rescues or medical emergencies. Identified access routes for routine operations will be used to minimize impacts/effects on Mexican spotted owl (MSO) protected activity centers.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	Air Quality	Noise
Human Health and Safety	Hazardous Materials	

Helicopter flight paths will be designated to avoid conflicts with designated critical habitat and ESA-listed species such as the Mexican spotted owl; however, impacts to T&E species are still possible. Such potential impacts will not be addressed in this document because they will be addressed in current Section 7 consultations between the OBP and the USFWS. Helicopter operations will increase noise and fugitive dust on the base, and there is a risk of fire and spread of hazardous materials in the event of a crash. Further evaluation of these issues is provided in the respective sections below.

### **2.2.12 Other Security Operations, Remote sensors**

OBP intends to begin installing remote sensors on the premises of Ft. Huachuca to assist in the detection of IAs and to aid in tracking personnel during training and routine operations. OBP will work with Ft. Huachuca staff to locate these devices in areas that avoid conflicts with sensitive archeological and environmental resources. Also, it will be necessary for the OBP to consult with the Department of Defense DOD frequency coordinator located at Ft. Huachuca in order to avoid conflicts with other radio frequencies.

*Potential Impact Considerations Identified in Scoping:*

Biological Resources	
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OBP will work closely with Ft. Huachuca staff to locate sensors in areas which avoid conflicts with sensitive archeological and environmental resources. As such, no significant impact is anticipated.

## **2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS**

### **2.3.1 Increased Enforcement South of Ft. Huachuca Boundaries**

One alternative initially considered for this analysis would consist of increasing manpower and equipment along a 25 mile stretch of roads south of Fort Huachuca and nearer the U.S.-Mexican border. If feasible, such an alternative would have the advantage of intercepting IAs and contraband well before they reach the Fort, with the added benefit of reducing potential impacts to the Miller Peak Wilderness and the Coronado National Forest. In evaluating this possible alternative, however, it became apparent that this approach would not be effective at the present time. The condition of the roads in that area currently makes patrolling the area extremely difficult and relatively ineffective. Accordingly, an alternative devoting available but limited manpower and technology to patrolling that area would not meet the purpose and need of the Proposed Action because it would not be an effective deterrent to IAs attempting to cross Ft. Huachuca. For this reason, such an alternative was not evaluated in further detail and not carried forward for analysis in this PEA.

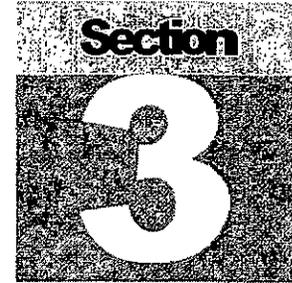
### **2.3.2 Other OBP Activities at Ft. Huachuca**

The Proposed Action represents the maximum number of new and expanded activities that the OBP will undertake at Ft. Huachuca as funding permits. Other alternatives might have been developed that included only a subset of the activities in the Proposed Action. However, it was concluded that would be unnecessary to evaluate potential environmental impacts from such potential alternatives in view of the fact that evaluating impacts from all of the proposed activities would logically cover impacts from any possible subset of those activities. Accordingly, it was considered redundant to develop an alternative implementing only some of the Proposed Action elements and no such alternative was carried forward for additional analysis.

## ***2.4 NO ACTION ALTERNATIVE***

The No Action alternative would leave OBP activities at Ft. Huachuca at the current level. Presently about 6 OBP personnel from the Naco and Sonoita stations enter the Fort each day in response to activated sensors, sightings of IAs, and for routine patrols at the south end of the Fort. This number can double when search and rescue (SAR) missions arise or when large numbers of IAs or narcotic smugglers are detected.

The No Action alternative would not reduce the increasing movement of IA's through the Fort premises. As a result, the numerous environmental and social problems caused by IAs on the Fort and in the surrounding community would not be reduced. IAs create trails through otherwise pristine areas, with the direct effect of destroying vegetation, directly or indirectly disturbing wildlife, and fragmenting habitat. These trails can also lead to soil erosion as well as the growth of exotic or noxious weeds, seeds of which are frequently brought in by IAs in their vehicles or on their clothing. IAs also leave human waste and substantial amounts of garbage along trails in the backcountry, which can pollute runoff. IAs also represent a safety and crime risk to Fort personnel and people in the broader community. None of these resource and human risks would be reduced under the No Action alternative.



## **3 Affected Environment and Environmental Consequences**

### ***3.1 INTRODUCTION***

The purpose of this section is to describe existing environmental resources at Ft. Huachuca and the surrounding region and evaluate whether the Proposed Action or the alternatives will cause "significant impacts" to those resources. This evaluation requires several steps, as outlined in the following subsections.

#### **3.1.1 Current Baseline Conditions and Region of Influence (ROI)**

Current baseline conditions within the "human environment" must first be described for each of the different resource categories, such as air quality and biological resources. For the purposes of this section, the "human environment" is defined to comprehensively include "the natural and physical environment and the relationship of people with that environment". [CEQ Guidelines, 40 CFR 1508.14] This description of baseline conditions will also include the 'region of influence' (ROI), defined in this PEA as the geographical area in which impacts from any particular activity might be expected to occur. Since this PEA evaluates a variety of different activities, the ROI may vary from one activity to another in several important ways. For instance, the ROI for biological impacts from UAV flights would extend for hundreds of miles along the U.S./Mexican border, while the ROI for similar impacts from horse patrols would be confined to the premises of the Fort. Additionally, the ROI for biological impacts from UAV flights will be different from the ROI for socioeconomic impacts from increased UAV flights. These distinctions will be addressed in the description of baseline conditions in each resource category evaluated below.

#### **3.1.2 Significance Criteria**

A second step in the analysis involves defining "significance criteria" that will distinguish whether an impact to a particular resource is 'significant' or not. Obviously, what is significant to one person may be meaningless to another, so defining 'significance' is inherently a subjective process. NEPA regulations themselves do not define significance criteria, but do suggest that such criteria be developed in light of both the 'context' and 'intensity' of a particular impact (1500 C.F.R. 1508.27). The significance criteria in this document employ definitions frequently seen in the field of NEPA analysis that have been developed in view of that regulation.

#### **3.1.3 Potential Consequences**

Finally, the various activities included in the Proposed Action and alternatives will be evaluated, individually and collectively, to determine whether the activities will cause impacts to the

environmental resources that would be considered "significant" in terms of the criteria provided. Since this is a "Programmatic" EA, it will be necessary to evaluate consequences from a combination of different proposed activities as well as potential consequences from each individual activity. The conclusion from these different analytical approaches will be presented within the context of each resource category.

### **3.1.4 Mitigation Measures**

Wherever possible, any mitigation measures that may be required to avoid or alleviate environmental harm have been embodied in the description of the Proposed Action elements themselves. For instance, as part of the proposal to increase horse patrols, the OBP agents will be trained to avoid certain sensitive areas such as wetlands, critical habitat, or archeological sites. In general, this approach will avoid the necessity of identifying and implementing separate mitigation measures for environmental impacts that might occur from the Proposed Action.

In those instances where mitigation measures cannot be integrated into the description of the Proposed Action, those measures will be presented and discussed below in the related resource section.

### **3.1.5 Cumulative Impacts**

Cumulative impacts, as defined in 40 CFR 1508.7, result from "the incremental impact of the (proposed) action when added to other past, present, and reasonably foreseeable future actions", regardless of what agency or person is responsible for that action. These cumulative impacts will be evaluated in Section 3.14.

### **3.1.6 Consultations**

#### **3.1.6.1 Protection of Wetlands, and Floodplain Management**

Executive Order (EO) 11990 "Protection of Wetlands" and EO 11988 "Floodplain Management" address the Federal agency actions required to identify and protect wetlands and floodplains, minimize the risk of flood loss and destruction of wetlands, and preserve and enhance the natural and beneficial values of both floodplains and wetlands. The OBP will evaluate the potential effects of its actions in floodplains and wetlands. If required, the OBP will obtain permits from the US Army Corps of Engineers (USACE) prior to discharging dredged or fill material into waters of the US, including wetlands, in compliance with Section 404 of the Clean Water Act. They will also obtain a Storm Water Pollution Permit for disturbances

#### **3.1.6.2 Endangered Species Protection**

Section 7 of the Endangered Species Act of 1973 requires the OBP to consult with the U.S. Fish and Wildlife Service (USFWS) if proposed OBP-funded projects may affect threatened and endangered species and/or their critical habitat. Such a consultation process is presently underway between the OBP and USFWS with respect to all activities in the Tucson sector. As of November, 2004, this process was in the 'informal' stage, awaiting the completion of a biological assessment that will determine the effects, if any, of OBP activities on federally listed species and critical habitat and identify ways to reduce any adverse effects. This process will likely lead to a formal consultation process where a biological opinion will be issued that will define limits on OBP actions so that these actions are not likely to jeopardize the continued

existence of any federally listed, proposed, or candidate species. Implications of this process for the Proposed Action evaluated in this PEA will be discussed in greater detail in Section 3.3.

### **3.1.6.3 Historic and Archaeological Resources Protection**

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires a Federal agency with jurisdiction over a Federal, federally assisted, or federally licensed undertaking to take into account the effects of the agency's undertaking on properties included in, or eligible for, the National Register of Historic Places (NRHP). This process affords the Advisory Council on Historic Preservation (ACHP), as well as the applicable State Historic Preservation Officer (SHPO), a reasonable opportunity to comment on the undertaking if it is determined to potentially affect these resources, as implemented by 36 CFR Part 800.1a. This process will be described in more detail in Section 3.12

## **3.2 LAND USE**

### **3.2.1 Baseline Environment**

The baseline environment for land use impacts includes the full array of regulations, plans, goals, guidelines and objectives that apply to lands where activities described in the Proposed Action are expected to occur. These plans and regulations are promulgated by a number of different entities, including Fort Huachuca, the city of Sierra Vista, and Federal and state entities. Also, the different activities included in the Proposed Action do not all occur in the same areas, so not every activity will involve the same entity or the same set of plans and regulations. Accordingly, the Region of Influence (ROI) varies with each element of the Proposed Action; however, as a general statement, the ROI for the entire Proposed Action would include the geographical area where the Proposed Action would potentially conflict with an existing or proposed land use plan or regulation.

#### **3.2.1.1 Ft. Huachuca backcountry**

Fort Huachuca has an Integrated Natural Resources Management Plan (INRMP) under the Sikes Act. Among other elements of the INRMP, habitat for threatened and endangered species (T&E) is currently being managed in a manner that is consistent with Protected Activity Center (PAC) management as prescribed by USFWS (see Section 3.3). At the present time, this has alleviated the need for the USFWS to designate critical habitat on the premises Fort Huachuca to protect the T&E species that exist within the Fort's boundaries. Protection levels for the PACs are consistent with those afforded Critical Habitat (CH) designations.

#### **3.2.1.2 Libby Army Airfield (LAAF) and Sierra Vista Municipal Airport (SVMP):**

The Proposed Action includes the expansion of UAV and manned air operations at LAAF/SVMP. This airfield is a joint-use facility. The civilian facilities are located on 72 acres of land on the north side of the airfield that was deeded to the city of Sierra Vista in 1982. However, the facilities themselves remain under the jurisdiction of the U.S. Department of the Army and are subject to covenants and conditions imposed by the Army.

#### **3.2.1.3 Areas surrounding Ft. Huachuca**

The lands surrounding Ft. Huachuca are governed by plans and ordinances of the city of Sierra Vista and Cochise and Santa Cruz counties. A large portion of the land adjacent to the Fort is controlled by the Bureau of Land Management (BLM) and the U.S. Forest Service (USFS). Permanent UAV and manned flight operations will occur within Pima, Santa Cruz, and Cochise Counties, which include a number of significant properties under both state and Federal jurisdiction, including wilderness areas, wildlife refuges, land grant properties, and various Native American reservations.

#### **3.2.1.4 San Pedro Riparian National Conservation Area (SPRNCA)**

The SPRNCA is a publicly-owned conservation area along the San Pedro River corridor that is managed for environmental, wildlife, and recreational uses. It was established by an act of Congress in 1988. The SPRNCA is adjacent to the northeastern area of Ft. Huachuca and most of the premises of the Fort are within the San Pedro River watershed.

More detailed descriptions of the land uses, policies, and regulations applicable to Ft. Huachuca and the surrounding area can be found in ENRD (1999), OBP Laser 2004, and OBP Skywatch 2004. Land use information contained in those documents is incorporated herein by reference. There are also numerous U.S. Army, city, county, state, and Federal regulations that govern a wide variety of resources such as water use and air quality. Those regulations and potential resource impacts from the Proposed Action will be discussed in the specific resource sections elsewhere in this PEA.

### **3.2.2 Criteria for Significance**

An evaluation of land use impacts involves a comparison of past, current, and future proposed uses of properties at Ft. Huachuca and the surrounding area and then determining the extent to which the Proposed Action might be incompatible with these uses. Significant impacts would occur wherever:

- The action is incompatible with on-site or surrounding land uses
- Activities are inconsistent or in conflict with applicable environmental goals, objectives, or guidelines of a community, county general plan, or other applicable Federal or state agency land use plan for the area affected

### **3.2.3 Potential Environmental Consequences**

#### **3.2.3.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

The Proposed Action element most likely to have significant land use impacts would be the expansion of new facilities for manned aircraft and permanent UAV operations on 15 acres on the municipal side of LAAF/SVMP. INS Air Operations 2003 evaluated the potential land use conflicts in the development of similar facilities on two sites of 6.7 and 10 acres, respectively, both of which were also on the north side of the airport. Potential land use conflicts from these facilities were found to be insignificant. The current Proposed Action envisions facilities that are somewhat larger than the Proposed Action in INS Air Operations 2003. If the final location of these expanded facilities remains essentially the same as the prior proposals, the conclusion of no significant impacts will remain valid. If the facilities are located elsewhere, then additional environmental documentation on land use conflicts will be prepared at that time.

Training, patrol, and enforcement actions conducted in the backcountry of Ft. Huachuca would be conducted in accordance with the Integrated Natural Resources Management Plan that governs these areas on the Fort. Accordingly, no land use conflicts are expected from OBP activities in these areas. Additionally, there are potential conflicts between the Proposed Action and the SPRNCA. These will be evaluated in other sections of this document that deal with water resources and biological resources, respectively.

### **3.2.3.2 Alternative Two -- The No Action Alternative**

No significant impacts to land uses would occur through implementation of the No Action alternative.

## **3.3 BIOLOGICAL RESOURCES**

### **3.3.1 Introduction**

This section evaluates potential impacts from implementation of the Proposed Action on biological and wildlife resources at Ft. Huachuca and the surrounding area. The impacts to biological resources from additional water usage by OBP personnel coming to the Ft. Huachuca area will be evaluated in Section 3.3

The expanded OBP activities being evaluated in this document have been included in an ongoing Section 7 consultation process between the OBP and the U.S. Fish & Wildlife Service (USFWS). As a result of those discussions, expanded OBP activities at Ft. Huachuca will need to adhere to certain guidelines so that these actions will not likely jeopardize the continued existence of any federally listed, proposed, or candidate species. Accordingly, this permits the conclusion that the Proposed Action will not cause significant impacts to T & E species and makes it unnecessary to repeat those discussions and conclusions in this document.

Other issues of concern would include potential impacts to other biological resources, such as fragmentation of habitat, disruption of major wildlife corridors, etc. The region of influence (ROI) for these potential impacts includes the premises of Fort Huachuca where proposed OBP activities will occur, the watersheds around Ft. Huachuca such as the San Pedro and the Babocomari, and areas where expanded manned and UAV operations will take place.

### **3.3.2 Baseline Environment**

Current baseline information for Ft. Huachuca regarding federally listed, proposed, and candidate species, along with additional information vegetation and other biological resources has been extensively described in: *United States Army Garrison (USAG) Programmatic Biological Assessment for Fort Huachuca (USAG Fort Huachuca 2002)*. Additional information on wildlife and vegetation associated with the LAAF site for the construction of expanded air facilities is provided in [INS Air Operations 2003], and those descriptions and accompanying conclusions are incorporated by reference herein. The following provides only a brief summary of additional information on biological and wildlife resources that will facilitate the discussions and conclusions of this document.

#### **3.3.2.1 San Pedro Riparian National Conservation Area (SPRNCA)**

The SPRNCA abuts Ft. Huachuca on the northeast. It is comprised of 40 miles of river and 58,000 acres of public land in Cochise County between the Mexican border and St. David, Arizona. The area is a rare remnant of the desert riparian ecosystem that once existed throughout the Southwest, containing a tremendous variety of birds and other desert wildlife. In 1988, Congress recognized its value by establishing the nation's first Riparian National Conservation Area along a 40 mile stretch of the upper river.

The SPRNCA has been the focus of environmental groups who claim that unsustainable pumping of potable water for the Fort and the surrounding community is depleting the aquifers that feed the San Pedro River, ultimately threatening the river's ecosystem along with the critical habitat and endangered species that exist or visit there. This conflict has been resolved, at least for the present time, by the 2002 consultation process between Ft. Huachuca and USFWS that resulted in a biological opinion (BO). Through the BO, Ft. Huachuca has made a commitment to adopt a number of water conservation measures that will reduce the Fort's net on-post water consumption from the local aquifers to zero by the year 2007. The Fort is also committed to working with broader community and local agencies in the Sierra Vista sub-watershed to achieve a zero balance between all pumping and recharge by the year 2011. As long as the Fort continues to meet this water conservation goal of zero net consumption, the BO states that continued pumping from the aquifer is "not likely to jeopardize the continued existence of any federally listed, proposed, or candidate species." Additional information on this issue will be provided in Section 3.4 below.

### **3.3.2.2 Wetlands**

Wetlands exist in isolated pockets on the premises of Ft. Huachuca, mainly in Garden Canyon and the Huachuca Canyons. These wetlands are protected by Federal regulations and in some instances contain T & E species such as the Huachuca water umbel. Wetland impacts that relate to T & E species will not be evaluated in this document due to the ongoing consultations between the OBP and the USFWS (see Section 3.3.1). Wetland impacts that relate to other wetland values and functions will be discussed in the following sections.

### **3.3.3 Criteria for Significance**

Impacts on biological resources could occur from expansion of OBP activities described in the Proposed Action. These impacts (including vegetation, wildlife and protected species) could be determined significant if one or more of the following conditions would result:

- Jeopardy to one or more populations of a Federally-listed threatened or endangered species.
- Adverse modification to designated critical habitat.
- Substantial loss of a resource of critical importance to a Federally-listed threatened or endangered species.
- Substantial increase in impact from vehicular or human activity on generally pristine or sensitive vegetation resources in the project area.
- Substantial fragmentation of important wildlife habitat or interference with heavy-use wildlife movement corridors.

### **3.3.4 Potential Environmental Consequences**

#### **3.3.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

##### ***3.3.4.1.1 Threatened and Endangered Species:***

Ongoing Section 7 consultations between the USFWS and the OBP will assess T&E impacts of all OBP operations related to the ABCI initiative, including the activities that are part of the Proposed Action. These consultations will ultimately produce guidelines and conservation measures that will reduce the possibility that any activities in the Proposed Action will jeopardize any threatened, endangered, or candidate species. Additionally, this process will ensure that the Proposed Action does not destroy or adversely modify any designated critical habitat for any T&E species. In view of this consultation process, it is unnecessary to further discuss herein any potential T&E impacts from the 12 activities defined in the Proposed Action.

##### ***3.3.4.1.2 Other Biological Impacts:***

Both UAV and manned aircraft operations will increase at LAAF under the Proposed Action. OBP Skywatch 2004 evaluated potential impacts to biological resources from a temporary UAV testing program at LAAF that involved two aircraft operating for 125 days between June and September. The Proposed Action expands this operation to four UAVs operating permanently on a year-round basis. Additionally, INS Air Operations 2003 evaluated the staging of 16 manned aircraft at LAAF, which increases to 20 under the Proposed Action. Expansion of these two aircraft programs could entail impacts to biological resources from the potential construction of new facilities as well impacts from additional numbers of flights. Impacts relating to aircraft in flight would include the potential for collisions between bats and birds, disturbances to animals on the ground, and biological impacts related to crashes of either manned aircraft or UAVs.

As mentioned above, any impacts from these expanded flight operations that relate to endangered species or critical habitat will be evaluated in ongoing consultations between OBP and USFWS. Potential impacts to non-ESA biological resources would increase incrementally as the numbers of flights are increased and UAV operations become year-round. There will be minor increases in the number of collisions with birds and bats; however, due to the general altitude of these flights, such collisions will remain infrequent and likely to occur only during takeoffs and landings. No significant impacts to bird or bat populations would be expected from these relative rare collisions.

There will be a small increase in the potential for fires from crashes of aircraft or UAVs. Again, most of the risk for crashes exists during landings and takeoffs, so the potential for fire is greatest in areas around LAAF where resources exist to limit any damage. Fires and related impacts due to crashes along the border area will be handled in accordance with the *UAV Crash/Incident/Mishap Investigation and Recovery Plan*. Nonetheless, there remains a very small risk that crashes could ignite fires that would encompass large areas, depending on the time of year and vegetative communities involved. Such fires may or may not have negative impacts on wildlife and vegetation, depending on a number of variables, since fire is a natural occurrence in many ecosystems. However, the risk of crash-related fires cannot be calculated with accuracy, and is likely to be less than the risk of naturally-occurring fires or fires set by IAs or other persons. Therefore, it is not considered to be significant.

INS Air Operations 2003 evaluated biological impacts of constructing new air facilities on sites of 10 and 6.7 acres, respectively, at locations on the municipal side of LAAF. Those sites were characterized as previously disturbed and predominately covered by invasive weeds and non-native grasses. It concluded that there would be no loss of quality habitat and only minor disturbances to wildlife in the area from construction and operation of the expanded facilities. None of these impacts were regarded as significant. The Proposed Action includes an expansion of these facilities to a 15 acre site, the location of which has not been determined. If this facility is ultimately located in the same locale, with the same specific vegetative cover and wildlife as the sites evaluated in INS Air Operations 2003, then there should be no significant impacts to biological resources. If the chosen site is in another area of the airfield, additional environmental documentation of biological resource impacts will need to be prepared at that time.

OBP activities in the backcountry of Ft. Huachuca have the potential to impact wetlands and other vegetative communities. Under normal circumstances, all OBP personnel will be restricted to existing roads and trails, where damage to sensitive resources will not occur. However, in 'hot pursuit' enforcement actions where IAs are being pursued off-trail, there is a possibility that personnel, horses, and vehicles could disturb wildlife, cross wetlands, or impact other sensitive vegetative areas. Such actions are clearly within the authority of the OBP, which has been authorized and mandated by the U.S. Congress to enter any lands within 25 miles of the border during the pursuit of IAs. Notwithstanding that fact, some impacts can and will occur.

To the greatest extent possible, OBP will avoid and/or mitigate for damage caused to sensitive areas, wetlands, and wildlife. OBP personnel will be educated in the location of wetlands and trained to avoid them. Additionally, access routes across wetland areas will be designated if wetland impacts become problematical. If enforcement actions occur in areas of critical habitat, OBP will notify and work with Ft. Huachuca and the USFWS to assess and mitigate the damage. Finally, OBP maintains several Memoranda of Understanding (MOU) with various agencies that stipulate how it will use the land.

With such precautionary measures in place, impacts to biological resources will be held to minimum. However, it still remains problematical to assess the significance of such impacts from these enforcement actions, for several reasons. One difficulty is that it is impossible to predict the location or frequency of "hot pursuit" actions. Secondly, there will be positive impacts to wetlands and vegetation as increased enforcement diminishes the movement of IAs through the backcountry of Ft. Huachuca. Since neither of these two effects is measurable, it is impossible to evaluate their significance.

#### **3.3.4.2 Alternative Two -- The No Action Alternative:**

No significant changes to existing biological conditions will occur through the No Action alternative. There may be some degradation of biological conditions in the backcountry of Ft. Huachuca from the No Action alternative because IAs will continue to move through the area at the present rate, while the Proposed Action is expected to reduce such trespass. However, this impact is not measurable and therefore cannot be determined to be significant.

### **3.4 HYDROLOGY & WATER RESOURCES**

This section addresses impacts to surface water, ground water, and water quality that might result from the implementation of the Proposed Action. Such impacts could occur from increased pumping of water for potable purposes, increased sedimentation or run-off from degraded landscapes, or a reduction in water quality or quantity in the area's water features. The ROI for water resource impacts includes the premises of Ft. Huachuca where OBP activities will occur as well as the watersheds that might potentially be impacted by pumping or run-off from the Fort.

### **3.4.1 Baseline Environment**

The relationship between water consumption in the Ft. Huachuca/Sierra Vista area and the riparian health of the San Pedro River watershed is the principle area of concern in evaluating water resource impacts. The San Pedro River lies to the east of Ft. Huachuca and Sierra Vista, and runs generally south to north from its headwaters in Mexico to its confluence with the Gila River. A 40-mile stretch of the river to the east of Ft. Huachuca has been designated as the San Pedro Riparian National Conservation Area (SPRNCA), an outstanding natural area that is home to an endangered species. Ft. Huachuca's eastern boundary abuts a portion of the SPRNCA.

Much of the water pumped at Ft. Huachuca and in the surrounding communities is from the regional aquifer that may contribute to the alluvial aquifer feeding flow in the San Pedro River. It is estimated that pumping from the regional aquifer currently exceeds the recharge rate with an annual overdraft between 3000 and 6000 acre feet [USPP 2004]. It is not entirely clear to what extent this pumping has contributed to the declining flows in the river; however, there is concern that continued over-pumping could eventually have serious negative impacts on the river.

To address these concerns, Ft. Huachuca has committed to a water conservation program designed to reduce their net consumption from the aquifer to zero by the year 2007 on post, and 2011 off-post. This will be accomplished through a variety of methods, including waterless urinals, low-flush toilets, ground water recharge, and other conservation measures. Entities such as the Border Patrol that bring additional personnel to the Fort are charged a one-time fee of \$1000 for each full-time equivalent person (FTE), and those funds are used to finance the ongoing water conservation effort. Additionally, the Fort is working with the surrounding communities through the Upper San Pedro Partnership, a consortium of 21 state, local, national, and Federal organizations and agencies, to reduce the regional net consumption as well. Details concerning these actions, as well as more detailed descriptions of the watershed can be found in USAG Ft. Huachuca 2002 and INS Air Operations 2003.

Issues related to run-off, storm water control, and wastewater treatment in conjunction with the construction of expanded air operations facilities have been evaluated in INS Air Operations 2003 and found to be not significant. Those analyses and conclusions are incorporated herein by reference.

### **3.4.2 Criteria for Significance**

A determination of significant impact on water resources could result if any of the following conditions were to occur:

- An unmitigated net increase in annual water use

- Storm water and/or runoff constituents significantly degrade downstream surface water quality.
- Grading or other construction activities discontinue the function of drainage facilities or watercourses.
- **GROUNDWATER:** A usable groundwater aquifer for municipal, private, or agricultural purposes is adversely affected by overdraft or contamination.

### **3.4.3 Potential Environmental Consequences**

#### **3.4.3.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

##### ***3.4.3.1.1 Water Usage Impacts from Additional Personnel at Ft. Huachuca***

Implementation of the Proposed Action will not result in an increase in water consumption at Ft. Huachuca and the surrounding community. Although a considerable number of new BP personnel will work on the premises of Ft. Huachuca, some with families in the area, the current water conservation program at Ft. Huachuca is capable offsetting any theoretical increases in water consumption with an ongoing array of water conservation measures. The mechanism for accomplishing this is detailed in the Fort's "Policy 119 – Fort Huachuca Water Use Mitigation Policy", which requires new personnel at the Fort to pay a one-time fee to fund these conservation measures. Appendix A at the end of this document provides a preliminary breakdown of the number of new personnel expected to use the facilities at Ft. Huachuca or patrol the backcountry, along with information on how predicted increases in water consumption are calculated. Roughly speaking, a one-time fee of \$1000 is assessed for each full-time employee (FTE) on the fort, or alternatively, for each additional acre foot of theoretical consumption. The figures in Appendix A are only estimates, with final calculations and fees to be computed through discussions between the BP and Ft. Huachuca.

As noted above, Ft. Huachuca is required to reduce its pumping from local aquifers in order to prevent harm to the critical habitat and endangered species in the nearby SPRNCA. This commitment, along with identified water conservation measures, is a result of Section 7 ESA consultations with the FWS that are described in USAG Ft. Huachuca 2002. Failure to meet the water conservation targets prescribed in this document would require formal consultation [USAG Biological Opinion 2002] and trigger the imposition of additional water use restrictions. Accordingly, as long as the BP contributes to the water conservation program, and as long as that program meets its conservation targets, the presumption is made that the BP's additional water consumption will not cause significant impacts to the SPRNCA. Additionally, as long as the water conservation program continues to reduce groundwater pumping, there will be no additional risk of land subsidence related to that pumping. No other significant impacts unrelated to the SPRNCA or potential land subsidence would be expected.

##### ***3.4.3.1.2 Construction Impacts to Hydrology and Water Resources***

INS Air Operations 2003 evaluated potential hydrologic and water resource impacts from the construction of facilities for manned aircraft operations on either a 6.7 acre or a 10 acre facility on the municipal side of LAAF. The current proposal involves a somewhat larger construction footprint of 15 acres, possibly in the same location. If this location is ultimately chosen, hydrologic resource impacts from run-off should remain substantially the same. The OBP will be required to obtain and implement a SWPPP for the project that will reduce the possibility that

construction will cause siltation that will significantly degrade surface water quality or interfere with drainage facilities. Additionally, this potential location is outside any potential floodplains, and the nearby wash will still be able to accommodate any run-off from additional hard surfaces. Accordingly, there should be no significant impacts to the area's hydrology and water resources from construction of a 15 acre facility at this location. If, however, the location of these facilities changes then additional environmental documentation of potential hydrologic impacts will need to be provided at that time.

#### **3.4.3.2 Alternative Two -- The No Action Alternative**

No increase in water consumption at Ft. Huachuca and the surrounding area would be occur under the No Action alternative. There would be no potential run-off from construction sites nor any risk of siltation entering nearby drainage facilities or washes.

### **3.5 AIR QUALITY**

#### **3.5.1 Baseline Environment**

The ROI for air quality would comprise the premises of Fort Huachuca and the immediate vicinity, notably including the community of Sierra Vista. Areas that are consistently downwind of the Fort as well as areas where UAVs and manned aircraft fly would also be within the ROI.

Air quality in Arizona is defined and regulated by a combination of Federal and state laws and regulations. In accordance with the Federal Clean Air Act, the Environmental Protection Agency has promulgated primary and secondary National Ambient Air Quality Standards (NAAQS) for six criteria pollutants (carbon monoxide, nitrogen dioxide, particulate matter, ozone, sulfur dioxide, and lead). Detailed information on acceptable limits and health effects of these six pollutants is available on the website of the Arizona Department of Environmental Quality at <http://www.azdeq.gov/environ/air/>.

In 1990, Arizona adopted the Federal NAAQS as the state Ambient Air Quality standard, including both national primary and secondary standards for criteria air pollutants. To enforce these standards, the state has promulgated a state implementation plan (SIP), which includes Arizona air pollution control laws and regulations as well as a detailed description of the programs Arizona uses to carry out its responsibilities under the Clean Air Act. Federal actions must comply with this SIP just as state actions do, pursuant to the EPA's General Conformity Final Rule, published in November of 1993. However, since the Conformity Rule only applies to Federal actions that emit a criteria pollutant in a non-attainment area, this rule is not relevant to the Proposed Action.

Ft. Huachuca and the surrounding area is an attainment area in terms of the Clean Air Act and air quality in the vicinity is generally excellent. This condition is a result of favorable wind patterns, lack of major polluting industries, and low population densities. Notwithstanding these generally excellent conditions, however, the area is not totally free of air pollutants. Sources of pollution include the exhaust from automobiles and aircraft, dust, gas heating emissions, and pollution blown in from nearby sources. Three nearby areas – Tucson, Douglas, and Nogales – have had air quality violations in the past twenty years. Tucson exceeded NAAQS standards for carbon monoxide, while Douglas and Nogales exceeded PM10 standards due to a combination of road dust, cleared agricultural areas, fires, and miscellaneous pollution generated in Mexico. All three

areas have successfully adopted state implementation plans (SIP's) and have been in compliance in recent years.

Air quality conditions at Ft. Huachuca have been described extensively in INS Air Operations 2003 and DHS Skywatch 2004. The descriptions provided in those documents are incorporated herein by reference.

### **3.5.2 Criteria for Significance**

A determination of significant impact on air quality could result if any of the following conditions are anticipated to occur:

- Activities would release criteria pollutants that exceed the Federal primary and secondary standards for pollutants adopted by the State of Arizona
- Activities are not in compliance with “Conformity Rule” [Section 176 of the Federal Clean Air Act for Federal actions]

### **3.5.3 Potential Environmental Consequences**

Potential impacts to air quality can be divided into two major categories – impacts that are short-term activities, such as dust and exhaust from facilities construction, and long-term impacts from ongoing operations. In terms of the Proposed Action, the short-term impacts would come only with respect to the construction of new facilities, including the new facilities for manned and UAV aircraft operations as well as the new facilities at the horse corral. Long-term impacts would come from a variety of sources, such as dust from the expanded use of existing trails and roads, emissions from aircraft, and emissions from increased automobile traffic on the Fort.

#### **3.5.3.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca:**

**Short term impacts.** There is a potential for short-term air quality impacts from the construction of facilities for expanded manned and UAV air operations and for construction of temporary facilities for horse training at the Wren Arena. The facilities at Wren Arena will be small, involving only a minor amount of site excavation and trenching for utilities. There may be minor amounts of dust created by these disturbances, but it will not be significant.

The proposed expanded air operations facility adjacent to LAAF is a more sizeable project. In January, 2003, an environmental assessment was prepared that evaluated air quality impacts from the construction of a somewhat smaller air operations facility in the same location at LAAF [INS Air Operations 2003]. The facilities evaluated in this document would disturb up to 10 acres of ground for a period of one-month, resulting in the potential release of 8.4 tons of dust from the site in the absence of dust suppression measures [Emissions = 1.2 tons/acre/month of activity (EPA Guidance Document AP-42)]. In addition, emissions from construction equipment were evaluated and presented in a table on page 43 of INS Air Operations 2003.

The Proposed Action anticipates the construction of a permanent facility on 15 acres, potentially in the same location at LAAF. Although final designs on the proposed facility have not been prepared, it appears reasonable to assume that this larger facility would generate no more than twice the dust and emissions of the smaller facility during the construction phase. Under that assumption, the amount of construction dust generated (16.8 tons) and emissions from

construction equipment would still be far below levels that would violate a SIP or designated limits under the Clean Air Act, and therefore would not be significant. If final design parameters for the facility exceed 15 acres, or if the chosen site has soil conditions that vary significantly from those evaluated in INS Air Operations 2003, additional environmental documentation will need to be prepared at that time.

**Long term impacts.** Long-term air quality impacts in the ROI could come from a variety of different elements in the Proposed Action. These sources include increased manned aircraft, UAV, and helicopter operations; emissions from automobiles driven by new personnel coming to the Fort; and dust emissions from the expanded use of horse patrols, foot patrols, vehicles, and ATV's on the backcountry roads and trails of the Fort. These separate categories will be discussed in the following subsections.

*Aircraft:* 14 new manned aircraft and 4 permanent UAVs will be stationed and operating 24/7 at LAAF as a result of the Proposed Action. In addition, there will be occasional, but unpredictable, use of helicopters in training and rescue operations. Emissions from an additional 10 new aircraft were evaluated in the INS Air Operations 2003, and found to represent less than a 4% increase in air traffic at LAAF. Given the low levels of air pollutants in the ROI, this minor increase in aircraft emissions was considered to be insignificant. Raising the number of additional permanent aircraft from 10 to 18 will increase air traffic at LAAF by 7.2% over baseline conditions from 2003. Given the excellent air quality in the ROI, this relatively minor increase in aircraft will not create significant impacts.

Helicopters create both engine emissions as well as dust pollution during take-offs and landings. Dust dispersion will be reduced, but not eliminated, by instructing pilots to land and take off on an angle. However, given the infrequent and unknown number of helicopter flights that will occur from the Proposed Action, no significant air quality impacts should occur.

*Automobiles:* Under full implementation of the Proposed Action, there could potentially be as many as 275 OBP personnel going to and from Ft. Huachuca on a given day. This would clearly increase automobile emissions at the Fort and in the surrounding area; however, given that approximately 5,000 people commute to work at the Fort, this would represent only a potential 5% increase in overall emissions. Since the Fort is in an attainment area for air pollutants, this increase would not represent a significant impact.

*Vehicle, Horse, and Foot Patrols in Backcountry:* OBP patrols in the backcountry, whether conducted on foot, on horse, or in vehicles, will inevitably cause additional degradation of the surface of roads and trails. This process will generate additional dust from these surfaces, especially during windy periods. However, due to a number of uncertainties such as soil conditions and numbers of trips involved, it is not possible to accurately predict how much additional dust will be generated. There will be additional dust, but given the general high quality of the air in the area, it should not be significant.

### **3.5.3.2 Alternative Two -- The No Action Alternative**

Emissions of pollutants from automobiles, helicopters, and aircraft will remain the same as they are under current baseline conditions. There will be no increase in dust pollution from increased use of backcountry roads and trails at Ft. Huachuca, or from hot-pursuit of IAs off-trail. However, there may be a slight increase in dust pollution from the expansion and creation of new

backcountry trails created by IAs who might have been deterred from entering Ft. Huachuca through the implementation of the Proposed Action.

### **3.6 NOISE**

#### **3.6.1 Introduction**

This section discusses baseline conditions and potential noise impacts with respect to people; potential noise impacts to wildlife will be discussed in the wildlife section. Additionally, noise impacts that affect people can be divided into two categories – noise that degrades the quality of life, and noise that has the potential to cause hearing impairment in people. Extensive baseline information regarding noise at Ft. Huachuca and surrounding environment can be found in OBP Skywatch 2004 as well as INS Air Operations 2003, and those documents are incorporated herein by reference.

#### **3.6.2 Baseline Environment**

**Noise that affects hearing:** Hearing loss from noise exposure is a complex topic that involves a number of parameters, including the duration of noise exposure, decibel level, and susceptibility of individual people to hearing degradation. The Proposed Action includes several activities that pose a potential threat to hearing, including increased use of aircraft, helicopters, and various construction activities. Since noise intensity diminishes rapidly in proportion to the distance from the source, the ROI for this type of noise would be limited to areas where people would be in close proximity to aircraft and construction equipment.

**Noise that degrades the quality of life:** Noise that degrades the quality of life includes noise that disrupts sleep, conversation, outdoor recreation, property values and other quality of life factors. The ROI for this type of “nuisance” noise would include residential areas, schools, nursing homes, hospitals, and office spaces that might be affected by noise generated by the Proposed Action. This area would include the premises of Ft. Huachuca, Sierra Vista, and places along the flight paths of UAVs, helicopters, and manned aircraft.

There are very few objective ways to measure the significance of noise impacts on the quality of life, because such impacts involve differences in personalities and lifestyles as well as variations in physical aspects of dwelling units. One accepted measure for this category of sound impacts is an upper limit of 65dB  $L_{dn}$  in residential areas, recommended by the Federal Interagency Committee on Noise (FICUN) in 1980. [Note: dB stands for decibels, while  $L_{dn}$  represents a day/night average sound level that incorporates a 10dB penalty for sounds that occur from 10:00 p.m. to 7:00 a.m.] The 65dB  $L_{dn}$  standard is higher than the previous EPA residential noise limit of 55 dB, because it gives greater importance to the economic benefit of noise-generating construction and development.

#### **3.6.3 Criteria for Significance**

Impacts from noise would be considered significant if:

- Activities (more than one per week) result in frequent noises at very high levels (e.g., blasts with C-weighted sound exposure levels in excess of 110 dB) in areas not already

designated and covered under previous environmental regulatory documentation for such noise events.

- Activity-generated noise emissions expose off-site receptors to long-term noise levels in excess of 65 dBL<sub>dn</sub>.
- Activities generate noise of such intensity and duration that personnel in the work area are at a risk of hearing loss.

### **3.6.4 Potential Environmental Consequences**

#### **3.6.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

Construction of the expanded air facilities and the horse training facilities will generate intermittent and temporary noise from construction equipment and activities. The horse training facilities are small and located a great distance from any sensitive areas, so they will not generate any significant noise impacts. Noise impacts from the construction of new aviation facilities at LAAF were evaluated in INS Air Operations 2003 and found to be insignificant. This conclusion was based on noise contours for LAAF that were generated by Coffman Associates, Inc. (2001), which confirmed that construction noise from this location would drop below the 65dBL<sub>dn</sub> level at 450 feet from the construction site, well before it reaches the nearest residential areas or other sensitive receptors. If the ultimate location of these facilities is different than the location of facilities evaluated in 2003, this conclusion would not remain valid. Accordingly, additional environmental documentation on noise impacts will have to be prepared at that time.

The Proposed Action will generate noise impacts from helicopters, UAVs, and manned aircraft in the vicinity of LAAF as well as along the border region wherever the aircraft are present. INS Air Operations 2003 evaluated the potential noise impacts from manned aircraft operations at LAAF involving 16 aircraft. Noise contours from that document determine that noise levels drop below the level of significance (65 dBL<sub>dn</sub>) before reaching any sensitive receptors, which includes residential areas, hospitals, school, and other facilities. The Proposed Action includes an increase of 4 manned aircraft along with 4 UAVs operated on a permanent basis. This represents an increase in air traffic over the air operations evaluated in INS Air Operations 2003, which may be an irritation to certain people in the vicinity of LAAF. However, the noise contours, which are the only available measure of significance with respect to these types of noise impacts, remain the same. Accordingly, the conclusion of “no significant impacts” is the same.

The potential for significant noise impacts from UAVs flying in the border areas was evaluated in DHS Skywatch 2004, and found to be insignificant. The analysis and conclusions in that document are incorporated herein by reference. Manned aircraft and UAVs may irritate people who are seeking solitude by camping or hiking in any of the remote areas along the border, including the Miller Peak and Pajarito wilderness areas. This would be especially true when UAVs drop down to 620 ft. above ground while tracking suspected IAs. However, there are no objective standards for measuring such irritation, and FAA standards only suggest a 500 ft. minimum altitude over such areas, so this annoyance would not be considered a significant impact.

Noise from increased helicopter flights could potentially impact residences and businesses on the premises of Ft. Huachuca as well as any person along the flight path. However, helicopter flights will be infrequent and their expected flight paths will be over generally uninhabited areas, so significant impacts are not expected.

The implementation of the Proposed Action will not lead to any expected hearing loss among workers and personnel in the vicinity. It is well understood that close exposure to helicopters, aircraft and construction noise can potentially damage a person's hearing, especially if the exposure continues for long periods of time. However, the Aircraft Noise Abatement Act of 1968 requires the FAA to develop and enforce safe standards for people working in the vicinity of aircraft, and the Occupational Safety and Health Act of 1970 requires OSHA to develop standards to protect workers at construction sites. Enforcement of these rules should protect construction workers and aviation personnel from hearing damage as a result of the Proposed Action.

Any significant impacts of noise on federally listed species will be evaluated and mitigated through ongoing consultations between the OBP and the USFWS. This is discussed in more detail above in Section 3.3.

#### **3.6.4.2 Alternative Two -- The No Action Alternative**

Noise levels at LAAF and at Ft. Huachuca in general will remain the same as under baseline conditions. Since noise levels are not linearly correlated (i.e., additive), the addition of additional sources typically may only marginally increase the overall levels. For example, a 65 dBL<sub>dn</sub> source added to another 65 dBL<sub>dn</sub> source may only increase the overall dBL<sub>dn</sub> to 67.

### **3.7 SOILS**

#### **3.7.1 Introduction**

This section discusses the potential impacts to soils at Ft. Huachuca as well as potential of the Proposed Action to change the topography of areas on the Fort. The ROI includes areas at Ft. Huachuca where activities may cause erosion, soil loss, changes in stream channels, or other topographical changes. Areas of specific concern would include the site for new aviation facilities as well as backcountry areas where there will be increased vehicle, horse, and pedestrian traffic. Soil impacts that result from contamination from hazardous substances will be analyzed in Section 3.11, Hazardous Materials.

#### **3.7.2 Baseline Environment**

The soils at the site of the proposed facilities for expanded air operations have been described in detail in USAG Humint 2002 as well INS Air Operations 2003. To summarize, the soils in this area are alluvial and derived from granitic, limestone, and volcanic rock that was deposited during the Pleistocene period. This soil is highly erosive if the ground cover is removed and measures are not taken to prevent erosion and soil loss. Soils in the undeveloped areas of Ft. Huachuca are comprised of a variety of soil types that vary extensively in their susceptibility to erosion and compaction from vehicle traffic. These soil types have been extensively characterized in the Soil Survey of Ft. Huachuca (NRCS 1997) and that analysis is incorporated herein by reference.

### 3.7.3 Criteria for Significance

Significant impacts to soil resources or topographical features could result if any of the following conditions result from the implementation of the Proposed Action:

- Erosion is increased resulting in an appreciable loss of topsoil that cannot be mitigated
- Increased sedimentation caused by grading or impervious surfacing impedes the function of drainage facilities and watercourses

### 3.7.4 Potential Environmental Consequences

#### 3.7.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca

**Construction Impacts:** The environmental assessment for expanded air operations [INS Air Operations 2003] evaluated the soil and topographical impacts of constructing an aircraft hangar, office space, and parking facilities on either 10 or 6.7 acres at LAAF. This analysis concluded that there would be no significant soil or topographical impacts due to the following:

- Grading would not noticeably change the topography of the area
- The proposed location for the new facilities had already been disturbed by soil stockpiling and heavy equipment staging;
- Best-management practices (BMPs) will reduce soil loss from wind and erosion;
- Implementation of a required Federal Storm Water Pollution Prevention Plan (SWPPP) will also reduce soil loss from storm events.

The expanded UAV and manned aircraft operations proposed in this document involve a slightly larger version of this same proposal on 15 acres. If the site ultimately chosen is in the same location as the previous sites, the soils and topographical analysis should remain applicable. BMPs will again be required as part of the construction process, and it will also be necessary to obtain and implement a SWPPP. With these mitigation requirements in place, the conclusion of no significant soil impacts should remain the same for an expanded site. However, if the location of the site changes from the area already studied in INS Air Operations 2003, then further environmental documentation on soil impacts will be necessary at that time.

**Road, trail impacts:** A number of the program elements included in the Proposed Action will increase horse, pedestrian, and vehicle traffic on the backcountry roads and trails of Ft. Huachuca, as well as occasional movement of vehicles and personnel off-trail in “hot pursuit” of IAs. Several potential impacts could occur from these patrol activities – direct impacts to the road and trail network from the increased traffic, negative impacts to undisturbed areas from “hot pursuit” actions, and indirect, positive impacts to backcountry soils from a reduction in the numbers of IAs moving through the area. No precise methodology exists to predict the extent of either of these impacts, especially in view of the diverse soil types and topography of the Ft. Huachuca backcountry. It is reasonable to assume that an increase in horse, pedestrian, and vehicle traffic will result in a small increase in the frequency of road grading and other maintenance, as well as a slight increase in dust erosion from the road surfaces. It is also reasonable to assume that fewer IAs moving through the Fort will mean both smaller and fewer

illegal trails along with the benefits of less dust and erosion. However, both positive and negative impacts of these increased patrols are expected to be minor and not significant.

#### **3.7.4.2 Alternative Two -- The No Action Alternative**

The No Action alternative will leave soil and topographical elements at the Fort in the current condition. There will be no surface grading and excavation at the LAAF. Backcountry roads and trails will not be subjected to increased horse, pedestrian, and vehicle traffic, and off-road areas will not be subjected to intermittent disturbance from ATV's in hot pursuit of IAs. However, under the No Action alternative there will be no reduction in the number of IAs moving through the backcountry of the Fort, so the number of illegal trails created by IAs will remain at current levels or even increase. As a result, any soil loss associated with these illegal trails will not be reduced.

### **3.8 SOCIOECONOMICS**

#### **3.8.1 Introduction**

This section evaluates the potential for the Proposed Action to cause changes in socioeconomic variables, such as housing, employment, and property values, within Ft. Huachuca and the surrounding area. The ROI for such potential impacts includes Ft. Huachuca, the city of Sierra Vista, and indirectly Cochise County.

Socioeconomic impacts that might disproportionately affect low-income or minority populations will be discussed in Section 3.13

#### **3.8.2 Baseline Environment**

Socioeconomic parameters such as population, housing, employment, social services, etc., have been extensively described in USAG Ft. Huachuca 2002a, INS Air Operations 2003, and OBP Skywatch 2004. The information provided in those documents is incorporated herein by reference. New data not contained in those documents will be presented in the following discussion. The following is a summary of some of the important socioeconomic parameters necessary to get an overview of conditions at Ft. Huachuca, Sierra Vista, and the surrounding area.

Sierra Vista is a major commercial center that serves southeastern Arizona, Cochise County, and even parts of northern Mexico. Ft. Huachuca itself is an integral part of the economy of Sierra Vista, both as a major consumer of goods and services and as a major employer. The year 2000 population of Sierra Vista was 37,775 (U.S. Bureau of the Census 2000), and is expected to double over the next 25 years. The most recent estimates calculated the population of Sierra Vista to be 40,430 as of July, 2003, a 7% increase from the 2000 census [Population Statistics Unit, Arizona Department of Economic Security (ADES) 2004]. The population of Cochise County was estimated to be 126,160 as of July 2003, an increase of 7.1% over the 2000 census. These growth rates compare with an 8.8% growth rate for Arizona as a whole over the same period. The permanent population of Ft. Huachuca is approximately 9000, which increases to approximately 15,000 during the day when the off-post workforce is present for duty.

Statistics indicate that the local economy of Sierra Vista has strengthened considerably over the years between 1990 and the present. Taxable sales rose from \$239 million in 1990 to \$698

million in 2003. The unemployment rate in Cochise County was 8.1% in 1998, but dropped to 4.6% by 2001. The housing market has strengthened over the past decade as well, with vacancy rates on rental housing dropping from 11.3% in 1990 to 10.7% by 2000 (U.S. Bureau of Census, 2000). There is also a trend toward more owner-occupied dwellings, indicative of Sierra Vista's increasing popularity as a retirement destination. (Sources: Arizona State University, Arizona Department of Commerce, AZ Tax Research Foundation)

### **3.8.3 Criteria for Significance**

Defining significance criteria for socioeconomic impacts is an inherently subjective process that is based on professional judgment as well as accepted standards in the field of NEPA analysis. One accepted standard is to measure significance in terms of a percentage change in one or more socioeconomic parameters, such as housing, employment, income, etc. According to this standard, a significant impact would occur when the Proposed Action:

- Induces substantial growth or decline (5%) in local or regional population either through provision of employment or permanent housing
- Causes a 5% change in one of the following economic variables: personal income, rental housing, local taxes, business or personal income, employment, general economic activity, or real estate market values.

### **3.8.4 Potential Environmental Consequences**

#### **3.8.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

*Population Impacts:* Permanent UAV operations and expanded manned aircraft operations are the only two activities in the Proposed Action that will bring permanent residents to the Sierra Vista/Ft. Huachuca area. These two activities expect to employ a maximum of 69 full-time personnel. If this number is multiplied by the average household size in Arizona of 2.64 (US, Census 2000), then these full-time personnel could increase the population in the local area by approximately 200 people. This would represent only a 0.5% population increase when compared against the year 2003 population estimate of 40,430 for Sierra Vista. This would not represent a significant increase in the local population.

*Economic Impacts:* Economic impacts from implementation of the Proposed Action can be separated into short-term impacts and permanent, ongoing impacts. Short-term impacts would be associated with construction of new facilities for UAV and manned aircraft operations as well as facilities for horse training, while long-term impacts would come from personal and program expenditures associated with ongoing OBP activities. In all cases, economic impacts are difficult to measure precisely because of numerous unknown and unpredictable factors such as the location of suppliers for construction materials and labor.

The construction of new air support and horse training facilities will have a beneficial impact on the local economy, but the impact will not be significant. In 2003, there were 1,388 new building permits issued for the community of Sierra Vista, and local taxable sales were \$698 million. Although no exact cost estimates have been prepared for the new OBP facilities, estimated costs for the hanger evaluated in INS Air Operations 2003 were \$6.5 million, plus costs for ancillary facilities. In view of that, it appears highly unlikely that the costs for the

proposed facilities would exceed \$25 million. Even if the entire sum were spent in one year, this would represent less than 4% of local taxable sales, well beneath the level of significance. This conclusion is further reinforced in view of the fact that labor and materials may come from areas outside Sierra Vista, in the greater county area and beyond.

There may also be tax impacts to the local community, depending on the final location of these facilities. The Federal government does not pay property tax, so if the facilities are located on land that is presently paying local property taxes, these payments would be eliminated. Alternatively, if the property is leased, then the Federal government pays a negotiated tax fee to the property owner. The potential significance of these impacts will need to be addressed in additional environmental documentation at the time the final site is identified.

The impact of personal expenditures from OBP activities will also not have a significant impact on the local economy. As noted above, the Proposed Action might increase permanent residents in the local community by approximately 200 people. In addition to that, there might be a maximum of another 130 OBP personnel on the base during work shifts, as short-term residents, or on patrol duty. Even if we make the maximizing assumption that all 330 of these personnel and family members were full-time residents, they would only increase the size of the local population by approximately 0.8%. This would clearly have a beneficial effect on the overall local economy, but it would be well below the defined significance threshold. This small boost to the local economy might also produce a small number of indirect job equivalents, but these would most likely be absorbed in additional hours for existing workers. Also, it appears unlikely that such population increases would induce any new housing construction because the housing market appears to have enough excess capacity to absorb these permanent residents (Arizona.com 2004).

#### **3.8.4.2 Alternative Two -- The No Action Alternative**

Socioeconomic conditions would remain essentially the same as under baseline conditions. There would be no economic benefits to the area associated with spending from OBP personnel come to the area as permanent residents or daytime employees. The local construction economy would not benefit from the construction of new facilities at the Fort. The local housing market would not benefit from rental or sale of homes, and the motel industry would not benefit from OBP employees coming to the area on a short-term basis.

### **3.9 HUMAN HEALTH AND SAFETY**

#### **3.9.1 Introduction**

This section evaluates potential impacts on human health and safety, either positive or negative, which might arise from the implementation of the Proposed Action. Threats to safety could come from a number of different sources, including facilities construction, staging and flying of aircraft, and storing and dispensing of hazardous materials such as petroleum, oil, and lubricants (POL). There are also numerous hazards associated with OBP enforcement activities in the backcountry of Ft. Huachuca. Threats to human safety could be reduced through implementation of the Proposed Action if it reduces movement of IAs through the Fort and improves response times to IA emergencies. The ROI for health and safety includes areas where hazardous materials are stored and dispensed, areas where personnel work, areas on and off the Fort where aircraft are flown, and areas where enforcement actions are conducted.

The potential for hearing loss from machinery and aircraft noise have been evaluated in Section 3.6, Noise.

### **3.9.2 Baseline Environment**

The baseline environment for threats to human health and safety from the construction of expanded air facilities and staging of manned aircraft operations at LAAF has been described in INS Air Operations 2003, and is incorporated herein by reference. The baseline for UAV operations at LAAF has been described in OBP Skywatch 2004 and is incorporated herein. This includes an analysis of risks associated with UAV crashes off the Fort premises, governed by the *UAV Crash/Incident/Mishap Investigation and Recovery Plan*.

Presently, there is considerable risk to IAs who attempt to enter the U.S. through the premises of Ft. Huachuca, including the risk of heat exhaustion, dehydration, accidents, and assault from other IAs. Alternatively, there are risks to OBP personnel attempting to intercept IAs, along with risks to personnel at Ft. Huachuca and to citizens in Sierra Vista and surrounding communities from IAs who may commit crimes against persons and property in the area.

Potential threats to safety from hazardous materials, such as petroleum products, will be discussed in Chapter 3.11.

### **3.9.3 Criteria for Significance**

Impacts to human health and safety would be considered significant if:

- Workers or the general public were subjected to unsafe construction practices and equipment
- Creates a situation involving endangerment or unusual risk to personnel, visitors, nearby residents, and the general public off-site
- Create a situation involving endangerment or unusual risk to personnel, visitors, nearby residents, and the general public off-site

### **3.9.4 Potential Environmental Consequences**

#### **3.9.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

Risks to human health and safety from the construction of new air facilities at LAAF were evaluated in INS Air Operations 2003 and found to be insignificant due to the length of time of construction, safety measures at the jobsite, and laws such as OSHA that govern worker safety. Health and safety concerns relating to the staging of UAV operations at LAAF, including risk of exposure to hazardous materials at the jobsite, were evaluated in OBP Skywatch 2004 and found to be insignificant. Risks from UAV crashes, both to personnel and the general public, were also evaluated in this document. Risks to personnel from crashes were found to be insignificant due to incorporated safety precautions, and risks to the general public were found to be insignificant due to the fact that UAVs generally fly over sparsely populated areas. The conclusions presented in these documents are incorporated herein.

Other OBP operations at Ft. Huachuca involve numerous, but relatively small, risks to human safety. Such risks are too numerous to present here in detail, but they would include: risks of

helicopter crashes, risks to safety of OBP personnel in the process of apprehending IAs, and risks from operating vehicles and riding horses. These risks cannot be completely eliminated, but high quality training and adherence to mandated safety procedures will reduce these risks below the threshold of significance.

Expanded OBP operations at Ft. Huachuca should have a positive impact on the safety of IAs and residents of Ft. Huachuca and surrounding area. The presence of additional OBP agents in the backcountry should reduce the number of IAs willing to risk their lives crossing through Fort property, although it is possible that many IAs will simply attempt to cross the border at a different, equally dangerous location. Additionally, with more agents in the field, it is likely that there will be a faster response to time to assist IAs in physical distress, reducing deaths and serious physical harm. With a potential reduction in the number of IAs in the area, there should also be a reduction in crimes or threats of harm against area residents. Clearly, while these impacts are positive, they are not measurable and are not considered to be significant.

#### **3.9.4.2 Alternative Two -- The No Action Alternative**

Most aspects of public health and safety will remain at current baseline conditions if the Proposed Action is not implemented. There will be no increased risk from aircraft and helicopter accidents, nor any increased danger to OBP agents patrolling the backcountry of the Fort. However, there will also be no positive impacts on human safety as a result of faster response times to medical emergencies or reduced numbers of IAs at Ft. Huachuca and the surrounding communities.

### **3.10 ROADS, SERVICES, UTILITIES, & WATER**

#### **3.10.1 Introduction**

This section describes the available infrastructure that could potentially be impacted by the Proposed Action, including roads and highways, air traffic corridors, potable water, wastewater treatment, electric power, natural gas, and solid waste disposal. The ROI for these elements includes Ft. Huachuca, Sierra Vista, and the road and air traffic networks in the general vicinity.

#### **3.10.2 Baseline Environment**

Baseline conditions for infrastructure have been described extensively in INS Air Operations 2003, OBP Skywatch 2004, and USAG Ft. Huachuca 2000b. This information is incorporated herein by reference. Site specific details and other relevant data not found in those documents will be provided here. These documents confirm that all utilities systems at Ft. Huachuca, with the exception of potable water, are currently operating below full capacity and are capable of handling additional customers. Additionally, there is considerable excess capacity in the road network in the area as well as in air traffic corridors that access LAAF.

Supplies of potable water in the Ft. Huachuca/Sierra Vista area are a matter of special concern. This issue was addressed in Section 3.4, Hydrology and Water Resources.

#### **3.10.3 Criteria for Significance**

The Proposed Action would create significant impacts if any of the following conditions occurred:

- Traffic or construction activities resulted in a substantial safety hazard to motorists, pedestrians, or bicyclists (military or civilian).
- Construction activities would result in the long-term or permanent restriction of one or more lanes of a primary or secondary arterial or intersection during peak-hour traffic, thereby cutting its capacity and creating significant congestion.
- A resource exceeds its present and/or future capacity to serve.
- A long-term interruption to, or interference with, a service.
- A significant increase in annual energy consumption or peak potential loading is calculated to exceed the capacity of the transmission lines and transformers.
- The public is completely restricted from an existing flight corridor.
- A hazard to aircraft is created.

### **3.10.4 Potential Environmental Consequences**

#### **3.10.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

INS Air Operations 2003 evaluated potential impacts to roads and utilities from an expansion of manned aircraft and facilities at LAAF. The analysis in that document confirmed that recent evaluations of air operations at LAAF (Coffman Associates, Inc. 2001) concluded that LAAF could easily handle future increases in air traffic, including anticipated OBP manned flights. INS Air Operations 2003 also concluded that the road network had excess capacity to accommodate additional traffic in and around LAAF, including construction traffic necessary to build new facilities. The present Proposed Action is slightly larger than the Proposed Action evaluated in INS Air Operations 2003; however, the differences between the two proposals are relatively small. The finding of 'no significant impact' in INS Air Operations 2003 with respect to roads and services will still apply to the current Proposed Action.

The final designs for expansion of horse training facilities at Wren Arena are not complete. However, these facilities will be small and will only tap into whatever utilities exist in the area. Utilities not available will have to be supplied on an as needed basis. Regardless, no significant impacts to infrastructure and utilities are expected from this part of the Proposed Action.

The Proposed Action could potentially bring up to 220 permanent personnel and students to the premises of Ft. Huachuca, as well as 70 patrol officers. Many of these people will leave the area at the end of the workday. However, there could be as many as 100 BORSTAR and Special Response Team trainees temporarily housed at Ft. Huachuca if facilities are available, although the usual number would be far less. Additionally, up to 69 personnel from manned air and UAV operations could become permanent residents of the Sierra Vista area, along with their families. These people will place additional demands on services and utilities such as waste collection, natural gas, electrical, and potable water. However, the numbers of people associated with the Proposed Action are relatively small and all utilities, with the exception of water, currently have excess capacity, so no significant impacts are expected from these increased demands.

#### **3.10.4.2 Alternative Two -- The No Action Alternative**

Under the No Action alternative, there will be no increased use of services and utilities in the Ft. Huachuca/Sierra Vista area.

### **3.11 HAZARDOUS MATERIALS**

#### **3.11.1 Introduction**

This section evaluates the possibility that the Proposed Action, either through an accident or in the normal course of operations, would expose the human or natural environment to hazardous chemicals or substances. Petroleum, oil, and lubricants (POL) are the substances most likely to create environmental hazards, but other substances are at issue as well. There is also the potential for positive impacts if the Proposed Action introduces direct or indirect safety improvements in the handling of hazardous wastes and substances. The ROI for hazardous substances includes areas where vehicles, manned aircraft, and UAVs are maintained and serviced, as well as areas where vehicles and aircraft could potentially crash.

#### **3.11.2 Baseline Environment**

Baseline conditions include procedures for handling hazardous waste in current vehicles, manned aircraft, and UAV operations at Ft. Huachuca as well as the local, state, and Federal laws and regulations that govern the storage, handling, and use of hazardous chemicals and substances. Extensive summaries of these laws, regulations, and procedures with respect to manned INS Aircraft operations at LAAF are presented in INS Air Operations 2003, while equivalent information for UAV operations is provided in OBP Skywatch 2004. That information incorporated herein by reference. Site-specific details or other information not found in those documents is provided below.

#### **3.11.3 Criteria for Significance**

A determination of a significant impact to humans or the environment from hazardous waste generated by the Proposed Action would be found if:

- Exposure of humans to unsafe levels of hazardous materials or hazardous waste
- Generation of hazardous materials or hazardous waste in quantities or of a type that could not be accommodated by the current disposal system
- Increase in likelihood of an uncontrolled or unauthorized release of hazardous materials that could contaminate soil, surface water, or groundwater
- Create a situation involving endangerment or unusual risk to personnel, visitors, nearby residents, and the general public off-site

#### **3.11.4 Potential Environmental Consequences**

##### **3.11.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

No significant impacts from hazardous waste would be expected from the implementation of the Proposed Action. INS Air Operations 2003 evaluated the potential for hazardous waste impacts from fielding of manned aircraft at LAAF and determined that POL and standard solvents and cleaners are the only hazardous wastes associated with OBP manned aircraft operations.

Adequate operational and waste disposal protocols exist, as dictated by Federal and state laws, to prevent these hazardous wastes from entering the environment or endangering personnel or the public at large. The Proposed Action outlined in this document envisions OBP manned air operations on a slightly larger scale than those evaluated in INS Air Operations 2003; however, protocols identified in that document should also be adequate to prevent significant impacts from the Proposed Action.

The potential for significant hazardous waste impacts from UAV operations and potential UAV crashes was evaluated in OBP Skywatch 2004. Routine precautions in handling POL, as well as identified waste disposal and recycling procedures were deemed adequate to eliminate significant impacts from hazardous wastes in routine UAV operations. In the rare event that a UAV crashes either on or off the Fort premises, OB will follow procedures identified in the *UAV Crash/Incident/Mishap Investigation and Recovery Plan* and Ft. Huachuca's Spill Contingency Plan for cleaning up the crash site. Accordingly, no significant hazardous waste impacts are anticipated from UAV operations.

#### **3.11.4.2 Alternative Two -- The No Action Alternative**

Under the No Action alternative, there will be no change in the handling or disposal of hazardous wastes at Ft. Huachuca or the surrounding area. No significant hazardous waste impacts, either positive or negative, are anticipated under this alternative.

### **3.12 CULTURAL RESOURCES**

#### **3.12.1 Introduction**

The section evaluates the potential for significant impacts to historic, archeological, or cultural resources at Ft. Huachuca from the implementation of the Proposed Action. The ROI for such impacts is the premises of Ft. Huachuca where archeological or historic resources have been identified or where they might be found through the implementation of the Proposed Action.

#### **3.12.2 Baseline Environment**

Ft. Huachuca has three sites that are registered on the National Register of Historic Places, although there is a strong likelihood that other eligible sites exist on the premises. The listed sites include the Fort itself, the Garden Canyon pictographs, and a National Register site also in Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village, and is the only site of the three that might be in danger of being impacted by activities under the Proposed Action.

Lands in the vicinity of the proposed facilities for INS Air operations, including the 203 acre land transfer study area north of LAAF, have been surveyed on several different occasions. Historic trash dumps and lithic scatter were identified at one site. Details of these surveys are included in INS Air Operations 2003, and that information is incorporated herein by reference.

Current management of troops and personnel at Ft. Huachuca is directing people and traffic away from known archeological sites as a protective measure. In contrast, the movement of IAs through the backcountry of Ft. Huachuca may be damaging some of these sites, both known and unknown, although the extent of such damage has not been documented.

### **3.12.3 Criteria for Significance**

Impacts to historic and archeological resources would be considered significant if:

- The Proposed Action caused adverse effect on properties listed on, or determined eligible for, the National Register of Historic Places
- Proposed rescue missions were to damage cultural resources and/or cultural resources sites.

### **3.12.4 Potential Environmental Consequences**

#### **3.12.4.1 Proposed Action -- 12 Expanded Border Patrol Activities at Ft. Huachuca**

A number of activities associated with the Proposed Action have the potential for damaging archeological sites at Ft. Huachuca. One area of concern would be construction activities, most notably the construction of expanded air facilities on the north edge of LAAF. Several surveys have been done in this area already, documenting the presence of trash dumps from the early 1900's and lithic scatter from prehistoric times. However, none of these documented sites is within the 10 and 6.7 acre sites previously identified in INS Air Operations 2003, nor are any within the adjacent 203 acre site proposed as a land conveyance between Ft. Huachuca and Sierra Vista. Regardless of where the newly-proposed 15 acre site is located, additional consultation may be required with the SHPO to confirm whether cultural and archeological resources exist at the new location.

Protocols for the construction work at the new manned air operations facilities and the horse training facilities, as well in the placement of sensors, will require that contractors cease construction activities if evidence of an archeological site is discovered. This will allow Ft. Huachuca personnel to research and document the site. With this protocol in place, and in view of the limited probability of archeological sites being found in the construction zone, there should be no significant impacts to archeological sites from construction activities identified in the Proposed Action.

A second area of concern is the movement of OBP patrols, horses, ATV's, and other vehicles through the backcountry of Ft. Huachuca. As a general rule, all training and regular patrol activities will be restricted to existing roads and trails; however, there will be occasions where IAs will be pursued off-trail in "hot pursuit" enforcement actions. This raises the remote possibility that archeological sites could be damaged. In order to reduce the possibility of damage, OBP officers will be instructed in the locations of known archeological sites and requested to avoid areas of concern if at all possible. Additionally, if OBP officers come across archeological sites during any of their enforcement actions, the location of the sites will be recorded and brought to the attention of Ft. Huachuca officials. With these cautionary requirements in place, the chances for damaging archeological and historic sites during routine patrols or "hot pursuit" enforcement actions should become less than significant.

There is also the remote possibility of helicopter crashes in the backcountry of the Fort that could damage sensitive sites. Increased OBP enforcement in the backcountry could actually reduce the number of IAs moving through Fort property. If so, the Proposed Action could potentially

reduce the chances that archeological resources would be damaged, especially in view of the fact that IAs have neither the training nor the inclination to avoid such resources.

#### **3.12.4.2 Alternative Two -- The No Action Alternative**

The No Action alternative would eliminate the threat of damage to archeological and historic resources at Ft. Huachuca that might occur through construction of new facilities or increasing patrol actions in the backcountry of the Fort. However, damage to archeological resources from IAs moving through the remote backcountry of the Fort would not be reduced.

### **3.13 ENVIRONMENTAL JUSTICE, OTHER ISSUES**

#### **3.13.1 Minority and Low Income Populations**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, directs Federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental impacts of their program, policies, and activities on minority or low income populations in the surrounding community.

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires Federal agencies to identify and assess the environmental health risks and safety risks of policies, program, activities and standards that may disproportionately affect children.

#### **3.13.2 Potential Environmental Consequences**

The increased OBP activities evaluated in the Proposed Action are not expected to adversely impact any minority or low-income populations or disproportionately affect children. No minority or low income populations exist within the areas affected by OBP activities on Ft. Huachuca. The increase in OBP enforcement and rescue actions on the premises of Ft. Huachuca may improve the health and safety of IAs, who are predominantly of Mexican origin. However, the E.O. 12898 applies only to U.S. minority populations, so IAs don't fall within the target population. The increase in manned and UAV flights from LAAF may cause noise disturbances to people living along the U.S./Mexican border. However, such disturbances would not necessarily impact minority or low-income populations more significantly than other population cohorts.

### **3.14 CUMULATIVE IMPACTS**

#### **3.14.1 Introduction**

This section analyzes the potential cumulative effects of the Proposed Action. As defined in 40 CFR 1508.7, a "cumulative impact" is an impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. It focuses on whether the Proposed Action, considered together with any known or reasonable foreseeable actions by OBP, Ft. Huachuca, Sierra Vista, other Federal or state

agencies, or some other entity might combine to cause a significant effect on the human environment.

There is no defined “region of influence” for potential cumulative effects. However, in order to be considered a cumulative impact, the effects must:

- Occur in a common locale or region
- Impact a particular resource in a similar manner
- Be long-term (short-term impacts would be temporary and would not typically contribute to significant cumulative impacts).

The Proposed Action is not expected to produce cumulative impacts in every resource category. As stated in INS Air Operations 2003, previous public scoping activities in the Sierra Vista area have generally raised the following concerns:

- Trends relating to water resources, including the declining flows in the SPRNCA, groundwater mining, and water quality
- Trends affecting biological resources, in particular federally-listed species and their habitats
- Population growth and economic activity in the Ft. Huachuca/Sierra Vista area and the related effects on water and ecological resources of the region

In view of these general concerns, as well as analysis prepared for this PEA, it was determined that implementation of the Proposed Action would not have cumulative effects in the following resource categories:

- Land Use
- Hydrology and Water Resources
- Air Quality
- Soils
- Human Health and Safety
- Hazardous Materials
- Cultural Resources
- Roads, Public Services, Utilities, Energy and Water
- Noise
- Environmental Justice, Other Issues

Potential cumulative effects in following resource categories will be presented in the discussion below:

- Biological Resources
- Socioeconomics

### 3.14.2 Biological Resources

The potential for the Proposed Action activities to have cumulative impacts to biological resources is a complex topic with several important areas of concern. For the most part, the Proposed Action impacts are expected to occur within the confines of the Fort itself, most importantly the backcountry. As a result, impacts to many biological resources on the Fort, such as vegetative cover, will have little relation to impacts elsewhere in the region. However, there are exceptions to this general line of reasoning. First, the increased numbers of manned aircraft, UAV, and helicopter flights obviously raise the possibility of cumulative effects over a much wider area, especially the 4 mile flight corridor along the Arizona border. Second, if the Proposed Action contributes to the decline of a biological resource of regional or national importance, such as an endangered species, it would be considered significant. Finally, if the activities on the Fort property generate indirect effects elsewhere, such as declining flows in the SPRNCA or the redirection of IA traffic into other areas, that would also need to be evaluated.

***Endangered species:*** Endangered species and critical habitat are obviously an issue of critical importance. However, as mentioned elsewhere in this PEA, the OBP is currently engaged in a consultation process with the USFWS to evaluate the impacts off all OBP activities on endangered species. Activities included in this PEA are part of that consultation process. The result of that consultation process will be a biological opinion that will require the OBP to undertake measures to avoid impacts, cumulative and otherwise, to ESA resources. Accordingly, there is no need to further evaluate those issues in this document.

***Impacts to the SPRNCA:*** The Proposed Action will bring new OBP personnel to the Fort and surrounding communities, some as full-time residents, possibly with families (see Appendix A for more detail). When combined with the overall predicted population growth for the area, there is the potential for cumulative increases in ground water consumption and related impacts to stream flows in the San Pedro River. However, as noted in Section 3.4 above, the OBP is required to make payments to the Fort's water conservation program to offset increased consumption from new personnel. By definition, participation in this program eliminates the possibility that new personnel will actually deplete local water resources, so no cumulative impacts are possible.

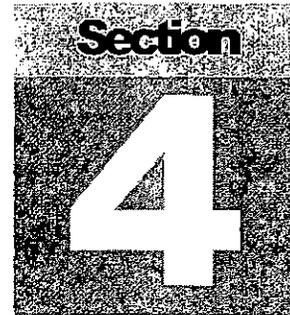
***Other cumulative biological impacts:*** Increased aircraft operations could potentially impact biological resources through collisions with bats or birds, or through crashes. However, the possibility is extremely remote that such crashes and collisions would intensify cumulative impacts to a biological resource that is also being impacted by other actions. In the rare instance that an endangered species or critical habitat is impacted, those issues will be addressed through the aforementioned consultation process between the USFWS and OBP.

One of the more controversial aspects of OBP enforcement is the question of how enforcement actions in one area can push IA traffic into other, perhaps more sensitive, areas. In view of this problem, it is entirely possible that enforcement actions on the premises of Ft. Huachuca may indirectly combine with other OBP operations to drive IA traffic into other areas along the border, generating unforeseen biological impacts. In a general way, some of this movement can

probably be predicted in advance. However, it is not possible to quantify how all OBP operations in the border area are impacting both the total flow of IA traffic as well as the different locations through which it moves. There is both cumulative damage to biological resources from OBP operations as well as cumulative benefits from a reduction in total IA movement through sensitive areas. The desired outcome of this activity is for the cumulative benefits to outweigh the other impacts in the long term.

### **3.14.3 Socioeconomics**

As noted above, there is a general concern in the greater Sierra Vista community about the population and economic growth, especially in view of the potential impacts of such growth on the sensitive SPRNCA. Since the Proposed Action will bring new people to the Sierra Vista as well as construction projects, there is no question that the Proposed Action will contribute to the cumulative impacts from both population increases and economic activity. Realistically, there is no universally accepted standard to use in determining whether such impacts are significant. Some aspects of population growth in the area may be interpreted as detrimental. As noted in Section 3.8 above, the Proposed Action could increase local population by 0.5%. This would also be a reasonable approximation of economic contributions from the Proposed Action, with the exception of the period when aircraft facilities are being constructed. These impacts will contribute additional minor indirect, or second order, economic increases such as additional work hours or conversion of part-time employment to full-time for existing employees of some businesses. Due to the size of the action, it is unlikely that these cumulative impacts are “significant” in combination with other population and economic changes.



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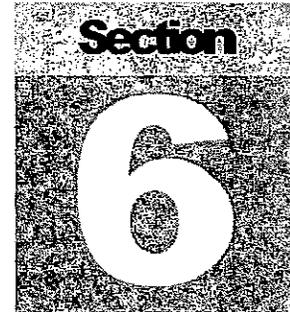
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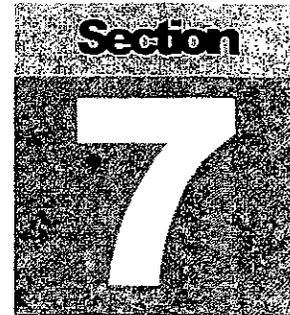
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US Fish & Wildlife Service - AZ  
Arizona Ecological Services Field Office  
U.S. Fish and Wildlife Service  
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FMC001221

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US Forest Service  
Coronado National Forest  
Sierra Vista Ranger District  
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Doug Duncan  
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Nick Melcher  
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Randall Smith  
US Forest Service  
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Patience Patterson  
USACE, Fort Worth District  
819 Taylor Street Room 3A14  
Fort Worth, TX 76102

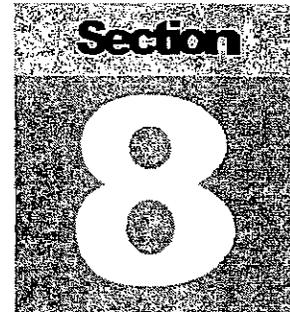
The Honorable Jon Kyl  
US Senate  
7315 N Oracle Rd  
Suite 220  
Tucson, AZ 85282

Peter Warshall  
Whole Earth Magazine  
4500 West Speed Way #7  
Tucson, AZ 85745

Captain Stephanie A Dawley  
USAF  
Environmental Science Management  
56th Range Management Office  
56 RMO/ESM  
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Luke AFB, AZ 85309-1420

Librarian  
Willcox Public Library  
450 West Maley Street  
Willcox, AZ 85643

FMC001222



## 8 ACRONYMS AND ABBREVIATIONS

AAQS	Ambient Air Quality Standards
AAAQS	Arizona Ambient Air Quality Standards
ABCI	Arizona Border Control Initiative
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AESO	Arizona Ecological Services Office
AMSL	Above Mean Sea Level
AO	Area of Operation
ARFF	Aircraft Rescue and Firefighting
AST	Above-ground Storage Tank
ATC	Air Traffic Control
AVGAS	Aviation Gasoline
BLM	Bureau of Land Management
BMGR	Barry M. Goldwater Range
BMP	Best Management Practices
BA	Biological Assessment
BO	Biological Opinion
BORSTAR	Border Patrol Search Trauma and Rescue
CAA	Clean Air Act
COBP	Customs and Border Protection
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
dB	Decibel
dBA	Decibel "A" weighted Scale
DHS	Department of Homeland Security
DIS	Directorate of Installation Support
DoD	Department of Defense
DOI	U.S. Department of Interior
DPEIS	Draft Programmatic Environmental Impact Statement
EA	Environmental Assessment

EAC	East Range Academic Complex
EIS	Environmental Impact Statement
ENRD	Environment and Natural Resources Division
ESA	Endangered Species Act
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FICUN	Federal Interagency Committee on Noise
FONSI	Finding of No Significant Impact
FTE	Full time equivalent
FY	Fiscal Year
USFWS	U.S. Fish & Wildlife Service
GCS	Ground Control Station
gpm	Gallons per minute
GPS	Global Positioning System
HAZMAT	Hazardous Material
HUD	Housing and Urban Development
HUMINT	Human Intelligence
HWMP	Hazardous Waste Management Plan
IA	Illegal Alien
INA	Immigration and Nationality Act
INS	Immigration & Naturalization Service
IR	Infra-red
ISCP	Installation Spill Contingency Plan
JTF-6	Joint Task Force - 6
km	Kilometer
$L_{eq}$	Equivalent sound level
$L_{dn}$	Day-night average sound level
$L_{max}$	Maximum sound level
LAAF	Libby Army Air Field
m	Meter
MI	Military Intelligence
MOA	Military Operating Area
MOGAS	Mobility Gasoline
MOU	Memorandum of Understanding
$ug/m^3$	Micrograms per cubic meter
MPE	Maximum Permissible Exposure
MPH	Miles per hour
$mg/m^3$	Milligrams per cubic meter
MSL	Mean sea level
NAAQS	National Ambient Air Quality Standards
NCA	National Conservation Area
NEPA	National Environmental Policy Act
NHZ	Nominal Hazard Zone
NM	Nautical Mile

FMC001224

NOA	Notice of Availability
NOI	Notice of Intent
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
NWRC	National Wildlife Research Center
OBP	Office of Border Patrol
OSHA	Occupational Safety and Health Administration
PAC	Protective Activity Center
PAR	Precision approach radar
PEIS	Programmatic Environmental Impact Statement
PM10	Particulate matter less than 20 microns
POL	Petroleum, oil, lubricants
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
RVS	Remote video surveillance
SAR	Search and Rescue
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SPCCP	Spill Prevention Control and Countermeasures Plan
SVMA	Sierra Vista Municipal airport
SWPPP	Storm Water Pollution Prevention Plan
UAV	Unmanned aerial vehicle
U.S.C.	United State Code
USACE	U.S. Army Corps of Engineer
USAG	United States Army Garrison
USAIC	U.S. Army Intelligence Center
OBP	U.S. Border Patrol
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	United States Fish & Wildlife Service
USPB	Upper San Pedro Basin

APPENDIX A: NUMBER OF PERSONNEL DAYS, FTE'S ON FT. HUACHUCA

ACTIVITY	FULL-TIME PERSONNEL AT FORT (FTE'S)	PERSONNEL DAYS- ONLY ON FORT	TOTAL DAYS (LODGING ON BASE)	TOTAL DAYS (LODGING OFF BASE)	FTE'S EQUIVALENT (X ÷ 365 =)	SUMMATION OF PARTIAL DAYS ON FORT
<b>Unmanned Aerial Vehicle (UAV) School</b> (25 Students for 23 weeks per year)			4025		11	
<b>Permanent UAV Operations at Libby Army Airfield (LAAF)</b> (25 full-time personnel, up to 4 new air traffic controllers)	29					
<b>Expanded manned aircraft operations</b> (35 full-time, 5 part-time personnel)	35				2.5	
<b>National BORSTAR Training</b> (5 classes/year, 6 weeks each, up to 65 personnel + instructors per class)			9750		26.7	
<b>Special Response Team Training</b> (3 classes/year, 15 days each, up to 35 personnel)			1575		4.3	
<b>Horse training</b> (11 classes/year, 3 weeks each, up to 25 personnel per class)		825				
<b>Routine Horse Patrols in Backcountry</b> (up to 12 riders, 24 hours/day, with some support vehicles)						200*
<b>Pedestrian Operations in Backcountry</b> (normally 12 personnel, up to 50 in emergencies, with vehicle support)						250*

Vehicle Operations in Backcountry									100*
Small Arms Range Training									100*
Helicopter Operations in Huachuca Mountains (intermittent)									50*
Other security operations, Remote sensors (indeterminate)									50*
TOTALS				69	825			44.5	750
CONVERSION FORMULAS TO ACRE/FEET OF CONSUMPTIVE USE				1 FTE =1 ACRE/FT	** (see below)			1 FTE =1 ACRE/FT	** (see below)
TOTAL YEARLY ACRE/FEET OF CONSUMPTIVE WATER USE				69	0.20			44.5	0.17

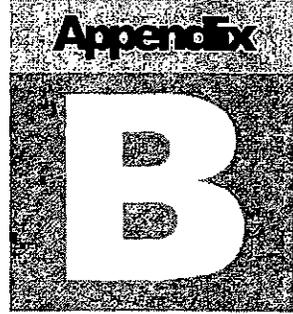
Note: Numbers in table are best-guess estimates only to facilitate analysis in this document. Final calculations of water usage and fees to be applied will be determined through future negotiations between the Office of Border Patrol and officials of Ft. Huachuca

\* The numbers represent approximate equivalent to one full day of personal water consumption at Ft. Huachuca

\*\* Formula for converting daily consumption to acre/feet - (75 gals/day) x (total days) = (total gallons) ÷ (325,851) = # of acre feet

**Assumptions:**

- a) FTE employment generates approximately consumptive use of one-acre foot of water when all socioeconomic and inter-related/interdependent factors are taken into consideration
- b) Average daily use for on-Fort activities = 56 gals/day



## **Appendix B - Correspondence**



**ORGANIZATIONAL STRATEGIES, INC.**

1331 Pennsylvania Avenue, Suite 1415  
Washington, DC 20004  
Phone: (202) 393-8441  
Fax: (202) 393-8442  
www.orgstrategies.com

November 18, 2004

Mr. James Garrison, State Historic Preservation Officer  
ATTN: Ms. Joanne Medley  
Arizona State Parks  
1300 West Washington  
Phoenix, Arizona 85007

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Mr. Garrison,

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment. If you do not wish to have a copy of the draft Comprehensive Environmental Assessment for review, please notify Mr. Darrell Mensel at (801) 773-6459.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked. We have asked Chairwoman Juan-Saunders' cooperation and comment in this matter.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext. 244.

Sincerely,



Steven R. Beattie, P.E.

Vice President

Organizational Strategies, Incorporated

Universal Solutions Engineering Division

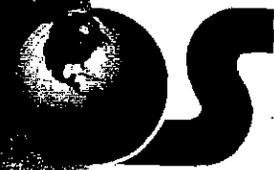
FMC001230

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229

FMC001231



## **ORGANIZATIONAL STRATEGIES, INC.**

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November 18, 2004

Mr. Mike Coffeen  
Wildlife Biologist  
U.S. Fish and Wildlife Service  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4915

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Mr. Coffeen:

On behalf of the Office of Border Patrol (OBP), Tucson Sector, Organizational Strategies Inc, would like to notify you that we are preparing a Comprehensive Environmental Assessment on the project noted above. The proposed action represents an expansion of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve Border Patrol capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003 which determined that there would be no significant impact to biological resources from this project. Our opinion is that the conclusion of 'no significant impacts' would also apply to the new proposal as well.

Other activities include expanded enforcement actions in the backcountry of the Fort, including horse, foot, and vehicle patrols. In general, these patrols will be restricted to existing roads and trails, with the occasional exception where Office of Border Patrol officers have to pursue suspects off-trail in "hot pursuit" situations. There will also be a modest increase in manned aircraft and UAV flights from the Libby Army Airfield that will fly along the U.S. Mexican border. Impacts from such flights have been evaluated in previous environmental documents.

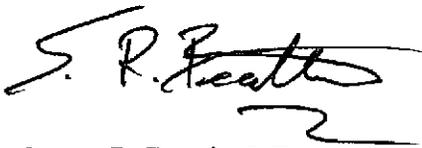
As you may already know, potential impacts to biological resources from all Office of Border Patrol activities within the Tucson Sector are being evaluated in a formal consultation process that is currently ongoing between the Office of Border Patrol and the U.S. Fish & Wildlife Service. The activities included in the draft CEA that our office is preparing have also been incorporated into this consultation process.

Finally, we would appreciate receiving from your office any lists you may have identifying species of concern at Ft. Huachuca, as well as information on critical habitat or other resource issues in that region.

HQOBP will provide your agency with a copy of the draft Comprehensive Environmental Assessment once it is complete. Please inform us if additional copies are needed and/or if someone else within your agency should receive the draft Comprehensive Environmental Assessment.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext. 244.

Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Douglas Duncan, U.S. Fish and Wildlife Service

FMC001233



## **ORGANIZATIONAL STRATEGIES, INC.**

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November 18, 2004

Mr. Theodore Quasula, Acting Supervisor  
PHOENIX AREA OFFICE  
Bureau of Indian Affairs  
P.O. Box 10  
Phoenix, AZ 85001

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Mr. Quasula:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the

remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,

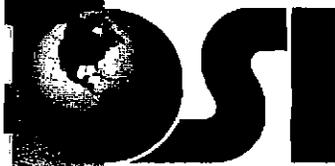
A handwritten signature in black ink, appearing to read "S. R. Beattie", with a stylized flourish underneath.

Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

**Cc: Mr. Peter Steers, Cultural Resources Manager**  
**Tohono O'odham Nation**  
**Administration Building**  
**49 Main Street**  
**Sells, AZ 85634**

**Mr. Gilbert R. Estrada**  
**Senior Tactical Coordinator**  
**Customs and Border Protection**  
**Office of Border Patrol**  
**Tucson Sector**  
**1970 West Ajo Way**  
**Tucson, Arizona 85713**

**Mr. Kevin Feeney, Environmental Program Manager**  
**Customs and Border Protection, Room 3.4-D**  
**1300 Pennsylvania Avenue, NW**  
**Washington, D.C. 20229**



## **ORGANIZATIONAL STRATEGIES, INC.**

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November 18, 2004

Honorable Benito F. Valencia, Chairman  
Pascua Yaqui Tribe  
7474 S. Camino de Oeste  
Tucson, AZ 85746

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Chairman Valencia:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

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In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,



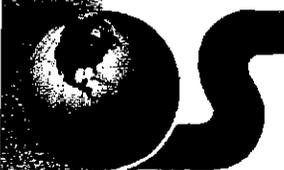
Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building

49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
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1970 West Ajo Way  
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Customs and Border Protection, Room 3.4-D  
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Washington, D.C. 20229



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November 18, 2004

Honorable Wayne Taylor, Jr., Chairman  
ATTN: Mr. Leigh Kuwanwisiwma  
Hopi Tribal Council  
P.O. Box 123  
Kykotsmovi, AZ 86039

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Chairman Taylor:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the

remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

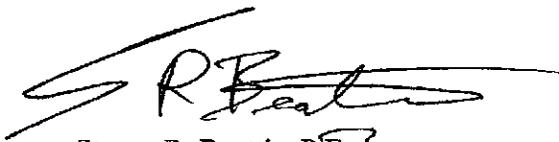
Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229

FMC001242



November 18, 2004

Mr. Bob Broschied  
Habitat Branch Chief  
Arizona Department of Game and Fish  
2221 West Greenway Road  
Phoenix, Arizona 85023-4399

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Mr. Broschied:

On behalf of the Office of Border Patrol (OBP), Tucson Sector, Organizational Strategies Inc, would like to notify you that we are preparing a Comprehensive Environmental Assessment on the project noted above. The proposed action represents an expansion of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve Border Patrol capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003 which determined that there would be no significant impact to biological resources from this project. Our opinion is that the conclusion of 'no significant impacts' would also apply to the new proposal as well.

Other activities include expanded enforcement actions in the backcountry of the Fort, including horse, foot, and vehicle patrols. In general, these patrols will be restricted to existing roads and trails, with the occasional exception where Office of Border Patrol officers have to pursue suspects off-trail in "hot pursuit" situations. There will also be a modest increase in manned aircraft and UAV flights from the Libby Army Airfield that will fly along the U.S. Mexican border. Impacts from such flights have been evaluated in previous environmental documents.

As you may already know, potential impacts to biological resources from all Office of Border Patrol activities within the Tucson Sector are being evaluated in a formal consultation process that is currently ongoing between the Office of Border Patrol and the U.S. Fish & Wildlife Service. The activities included in the draft CEA that our office is preparing have also been incorporated into this consultation process.

Finally, we would appreciate receiving from your office any state lists you may have identifying species of concern at Ft. Huachuca, as well as information on critical habitat or other resource issues in that region.

HQOBP will provide your agency with a copy of the draft Comprehensive Environmental Assessment once it is complete. Please inform us if additional copies are needed and/or if someone else within your agency should receive the draft Comprehensive Environmental Assessment.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext. 244.

Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division



November 18, 2004

The Honorable Vivian Juan Sanders, Chairwoman  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Chairwoman Juan-Sanders,

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register

of Historic Places. The listed sites include the Fort itself, the Garden Canyon pictographs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

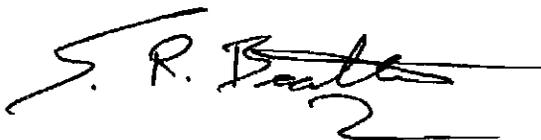
Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,

A handwritten signature in black ink, appearing to read "S. R. Beattie", with a stylized flourish at the end.

Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229



## **ORGANIZATIONAL STRATEGIES, INC.**

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November 18, 2004

Honorable Ivan Malik, President  
ATTN: Cultural Staff, Cultural And Environmental Services Department  
Salt River Pima-Maricopa Indian Community Council  
10005 E. Osborn  
Scottsdale, AZ 85256

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear President Malik:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the

remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,

A handwritten signature in black ink, appearing to read "S. R. Beattie". The signature is fluid and cursive, with a long horizontal stroke at the end.

Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229

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# ORGANIZATIONAL STRATEGIES, INC.

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November 18, 2004

Honorable Sherry Cordova, Chairperson  
Cocopah Indian Tribe  
County 15<sup>th</sup> and Avenue G  
Sumerton, AZ 85350

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Chairperson Cordova:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

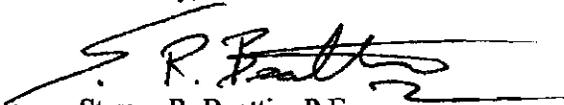
Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
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Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229



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November 18, 2004

Honorable Donald R. Antone, Governor  
Gila River Indian Community Council  
P.O. Box 97  
Sacaton, AZ 85247

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Governor Antone:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

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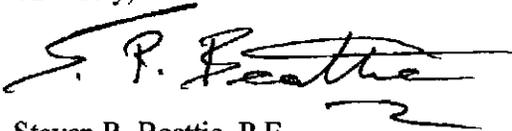
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Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

Cc: Mr. Peter Steers, Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

FMC001255

Mr. Gilbert R. Estrada  
Senior Tactical Coordinator  
Customs and Border Protection  
Office of Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. Kevin Feeney, Environmental Program Manager  
Customs and Border Protection, Room 3.4-D  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20229



November 18, 2004

Honorable Delia Carlyle, Chairperson  
Ak Chin Indian Community Council  
42507 W. Peters & Nall Road  
Maricopa, AZ 85239

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear Chairperson Carlyle:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

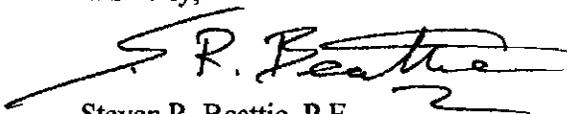
Expanded air operations may possibly require the construction of a hangar and support facilities on approximately 15 acres on the north side of Libby Army Airfield. This represents a modest expansion of a previous proposal to build expanded manned aircraft facilities on 10 acres in the same location. This proposal was evaluated in an environmental assessment titled "Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona", January 2003. There is the possibility that backcountry patrols will occasionally leave designated roads and trails in 'hot pursuit' of potential suspects.

In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,



Steven R. Beattie, P.E.  
Vice President  
Organizational Strategies, Incorporated  
Universal Solutions Engineering Division

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November 18, 2004

Honorable Mike Jackson, Sr., President  
Fort Yuma-Quechan Tribe  
350 Picacho Rd.  
Winterhaven, CA 92283

Subject: Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector  
Expanded Operations on the U.S. Army Garrison at Fort Huachuca

Dear President Jackson:

On behalf of the Office of Border Patrol, Tucson Sector, Organizational Strategies Inc, is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol wishes to continue its consultation process with appropriate federally-recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Comprehensive Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action represents an expansion of the Office of Border Patrol activities at the Fort in a number of areas, including air operations, training, and enforcement actions. There will be a minor expansion of air operations to include the use of helicopters and unmanned aerial vehicles (UAVs) in support of enforcement actions. Patrols by horse, foot, and vehicle in backcountry of the Fort will be implemented. Several new training programs associated with these actions will also be initiated utilizing facilities already available at Ft. Huachuca.

There is a need to expand enforcement by the Office of Border Patrol on Ft. Huachuca in response to recent increases in the movement of illegal entrants (IEs) through the Fort. The proposed action will also improve our humanitarian response and assistance to distressed IEs at risk of dying from exposure along the U.S./Mexican border. Finally, the proposed action will categorically improve the Office of Border Patrol's capabilities in response to an ever-increasing concern about the safety of U.S. borders in the face of terrorism, smuggling, and drug operations.

Our initial research, as detailed in our upcoming draft comprehensive environmental document, indicates that Ft. Huachuca has three sites that are registered on the National Register of Historic Places. The listed sites include the Fort itself, the Garden Canyon petroglyphs, and an archeological site at the mouth of Garden Canyon. The Garden Canyon archeological site is the remains of a prehistoric village. In addition to these listed sites, previous surveys have identified historic trash dumps and lithic scatter on lands north of Libby Army Airfield.

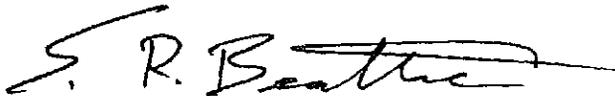
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In order to avoid or minimize potential effects from such actions, the proposed action incorporates a number of preventative measures. As part of their training process, Office of Border Patrol personnel will be educated in the location of known archeological resources and instructed to avoid them during their routine patrols and 'hot pursuit' actions. In terms of potential construction activities, all contractors and personnel will be required to stop work and report any suspected archeological or historic resources they may come across. At that point in time, Border Patrol officials will notify all consulting parties, including Indian tribes, and invite their views on the effects and assess adverse effects, if any, in accordance with 36 CFR § 800.5. Work will not begin again until such consultations have taken place.

With these preventative measures and constraints incorporated into the proposed action, it is our present opinion that the Office of Border Patrol activities identified in the proposed action will not cause any adverse effects on historic or archeological resources. We would appreciate knowing, at your earliest convenience, whether you agree with this conclusion or whether you think there are resources and issues we have overlooked or that you would propose to discuss.

If you have any questions or responses to the above, please feel free to contact Mr. Darrell Mensel at 801-773-6459 or me at 202-393-8441, ext 244.

Sincerely,



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