



FINAL

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED AJO FORWARD OPERATING BASE AJO STATION AREA OF RESPONSIBILITY U.S. BORDER PATROL, TUCSON SECTOR

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



SEPTEMBER 2011

EW1 FOIA CBP 007049

FINDING OF NO SIGNIFICANT IMPACT
FOR THE PROPOSED AJO FORWARD OPERATING BASE
AJO STATION AREA OF RESPONSIBILITY
U.S. BORDER PATROL, TUCSON SECTOR

Project History: The United States (U.S.) Border Patrol (USBP), Ajo Station operates a tactical camp on a 1-acre site at the intersection of Bates Well Road and the western boundary of the Organ Pipe Cactus National Monument (OPCNM) under Special Use Permit number IMR ORPI 9500 10-04. This tactical camp was previously located at Bates Well which is listed on the National Register of Historic Places. Upon the request of the National Park Service (NPS) OPCNM and the U.S. Fish and Wildlife Service (USFWS), in an effort to protect historical properties and as a conservation measure for the endangered Sonoran pronghorn (*Antilocarpa americana sonoriensis*), the tactical camp was moved from the Bates Well site to the current site. Impacts of the move and operation of the camp were analyzed in the December 2009 *Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol Tucson Sector*.

This Environmental Assessment (EA) tiers from the December 2009 SBInet Ajo-1 Tower Project EA and addresses the proposed expansion of the existing 1-acre tactical camp into a 3-acre Forward Operating Base (FOB) to assist CBP in their goal of establishing and maintaining effective control of the border. This EA was prepared in accordance with the National Environmental Policy Act (NEPA) and analyzes the project alternatives and potential impacts on the human and natural environment for two selected alternative sites.

Purpose and Need: The purpose of this project is to improve CBP's efficiency and safety within the USBP Tucson Sector, encompassing remote border zones in the Ajo Station Area of Responsibility (AOR). USBP Agents assigned to patrol within the area may require 2 hours or more of travel time to reach their patrol areas after mustering at the Ajo Station. USBP Agents need to be deployed closer to the international border and remote western zones of the Ajo Station to improve efficiency and effectiveness during work shifts. With the improved deterrence afforded by the SBInet technology deployed throughout the OPCNM, the far western zones of the AOR on the Cabeza Prieta National Wildlife Refuge (CPNWR) have had an increase in CBV activity. By providing a FOB with living quarters for additional Agents and refueling facilities, Agent response time to illegal cross-border activities would be greatly improved, and Agents could be more efficiently deployed to patrol the more remote sections of the Ajo Station AOR. The overall safety and efficiency of USBP Agents would be enhanced, as would the safety of employees and visitors on the OPCNM, the CPNWR, and the general public.

Proposed Action: The Proposed Action includes the expansion of the current USBP tactical camp on the OPCNM to include two additional acres, resulting in a 3-acre FOB to be run on solar or other alternative power sources with battery and diesel generator backups, including the following features: modular buildings to accommodate a maximum of 32 Agents (sleeping quarters, kitchen/dining facility, restrooms with showers, office space, muster area, communications equipment/server connectivity, fitness room, and secure storage), perimeter fencing, drinking water well system, fire suppression system, security camera, equipment and lighting for compound, bulk fuel storage, parking for up to 35 vehicles, a detention facility,

equestrian stalls and hay storage, all-terrain vehicle storage, and supply storage. Construction of the facility would take place over approximately 5 years. It will be assumed that the FOB will run on generator power exclusively for 5 years until the full build out, including solar power panels and batteries, is completed.

Conservation measures and best management practices (BMP) would also be implemented to avoid and minimize effects on U.S. Department of the Interior (DOI) trust resources.

Alternatives Considered: Four alternatives were identified and considered during the planning stages of the proposed project and all are carried forward for analysis in this EA. The four alternatives are 1) the Proposed Action (as discussed above), 2) Fossil Fuel Generator Power, 3) CPNWR Location, and 4) No Action.

Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative includes the same features and 3-acre footprint identified for the Proposed Action; however, the site would be powered by diesel or natural gas generators with battery backup systems.

CPNWR Location Alternative

The CPNWR Location Alternative includes the same features identified for the Proposed Action; however, the site would be located within the non-wilderness corridor on the CPNWR at the intersection of Bates Well Road and the CPNWR eastern boundary.

No Action Alternative

Under the No Action Alternative, the FOB would not be expanded. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and other action alternatives are evaluated.

Affected Environment and Consequences: The Proposed Action would have a direct permanent impact on 2 acres. The FOB is located on NPS lands which are used for the protection of the Sonoran Desert Ecosystem, and recreational and educational purposes. Construction of the FOB would have direct long-term impacts on land use, wilderness, soils, wildlife, vegetation, due to loss of biological production and loss of habitat resulting from the expanded FOB. During construction, direct temporary impacts would occur on wilderness, soils, air quality, noise environment, and wildlife due to increased water and wind erosion of disturbed soil, increased traffic, increased noise emissions, and vehicle emissions. Disturbances from construction activities may affect, and likely adversely affect, the Federally endangered Sonoran pronghorn (*Antilocarpa americana sonoriensis*), and may affect, but are not likely to adversely affect the lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*). Impacts from noise and air emissions would be less in both duration and magnitude than those currently experienced from the diesel generators in continuous use at the tactical camp. Constructing the FOB would not directly impact wetlands, waters of the United States, surface waters, groundwater, floodplains, or utilities.

A total of two previously recorded archaeological sites are located near the project site. Impacts on the previously recorded archaeological sites from the Proposed Action would be avoided through a combination of project design and monitoring.

No significant adverse effects on the natural or human environment, as defined in 40 Code of Federal Regulations Section 1508.27 of the Council on Environmental Quality's Regulations for Implementing NEPA, are expected from implementation of any of the action alternatives.

Best Management Practices: BMPs that will be implemented during the expansion and operation of the FOB are described in Section 4.0 of the EA and are incorporated by reference to this Finding of No Significant Impact. Some of the more pertinent BMPs include, but are not limited to, the following:

1. Update the existing Spill Prevention, Control and Countermeasures Plan (SPCCP) to prevent and manage accidental spills that might occur during expansion of the facility. Operation of the FOB will also require an SPCCP due to the presence of hazardous materials associated with fuel storage.
2. Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) to control stormwater erosion and sedimentation during construction.
3. Conduct bird surveys, in accordance with the Migratory Bird Treaty Act, in the event that clearing and grubbing activities occur during the normal migratory bird breeding and nesting season (February 15 through August 31).
4. CBP will minimize impacts on Sonoran pronghorn and lesser long-nosed bats and their habitats by using flagging or temporary fencing to clearly demarcate project perimeters with the land management agency. CBP will not disturb soil or vegetation outside of that perimeter.
5. CBP will minimize the number of construction vehicles traveling to and from the project site and the number of trips per day. CBP will coordinate construction vehicle activity with land managers at their discretion.
6. CBP will minimize animal collisions, particularly with Sonoran pronghorn, by not exceeding construction and maintenance speed limits of 35 miles per hour (mph) on major unpaved roads (i.e., graded with ditches on both sides) and 25 mph on all other unpaved roads. During periods of decreased visibility (e.g., night, weather, and curves), CBP and contractors will not exceed speeds of 25 mph.
7. The site boundaries of all previously recorded archaeological sites, including a 100-foot buffer, would be flagged around each of the sites to ensure that they are avoided.
8. CBP will have an archaeologist on-site during all subsurface disturbance activities. If any cultural resources are discovered during these activities, then the OPCNM archaeologist will be contacted and all work will cease until the significance of any resource has been evaluated.

Findings and Conclusions: Based upon the analyses of the EA and the environmental design and mitigation measures to be implemented, the Proposed Action would not have a significant adverse effect on the environment. Therefore, no additional environmental evaluation is warranted.

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Project Proponent

12 SEP 2011
Date

Approved:

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Facilities Management and Engineering
U.S. Customs and Border Protection

9/19/11

Date

FINAL

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SEPTEMBER 2011

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SECTION 1.0 BACKGROUND



1.0 BACKGROUND

1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes the expansion of the existing United States (U.S.) Border Patrol (USBP) 1-acre tactical camp into a 3-acre Forward Operating Base (FOB) within the USBP Ajo Station Area of Responsibility (AOR) in southwest Arizona (Figure 1-1). The Ajo Station operates the existing tactical camp on a 1-acre site located on the Organ Pipe Cactus National Monument (OPCNM) at the intersection of Bates Well Road and the western boundary of the OPCNM under Special Use Permit number IMR ORPI 9500 10-04 (Appendix A). This tactical camp was previously located at Bates Well, a historic site listed on the National Register of Historic Places (NRHP) on the OPCNM. At the request of the National Park Service (NPS) OPCNM and the U.S. Fish and Wildlife Service (USFWS), in an effort to protect historical properties, and as a conservation measure for the endangered Sonoran pronghorn (*Antilocarpa americana sonoriensis*), the tactical camp was moved from the Bates Well site to the current site in 2010. Impacts of the move and operation of the camp were analyzed in the December 2009 *Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol Tucson Sector*. This EA will analyze the expansion of the tactical camp's footprint into a 3-acre FOB as well as operation of the FOB.

The USBP is a law enforcement entity of U.S. Customs and Border Protection (CBP) within the Department of Homeland Security (DHS). USBP's priority mission is to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the United States homeland. This is accomplished by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the United States. Cross-border violators (CBV) have cost United States citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention, and incarceration of criminals, and indirectly in loss of property, illegal participation in government programs, and increased insurance costs (Federation for American Immigration Reform 2000).

The project area for this EA covers Darby Wells Road from its intersection with Arizona State Route 85, southwest to Bates Well Road at its intersection with the western boundary of the OPCNM, and a 2-mile buffer around the road corridors and proposed FOB site (see Figure 3-1). In connection with earlier border infrastructure projects, much of this area and similar actions were analyzed in previous National Environmental Policy Act (NEPA) documents prepared by CBP and the legacy Immigration and Naturalization Service (INS). Accordingly, this EA tiers from a July 2001 INS and Joint Task Force-Six (JTF-6) NEPA document entitled, *Supplemental Programmatic Environmental Impact Statement, INS and JTF-6 Activities on the Southwest U.S.-Mexico Border* (INS and JTF-6 2001), the *Programmatic Environmental Assessment for the Proposed Installation and Operation of Remote Video Surveillance Systems in the Western Region of Immigration and Naturalization Service* (INS 2003), and the *Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol Tucson Sector* (CBP 2009). Where this EA incorporates previously documented information, the appropriate NEPA document is cited and the incorporated content

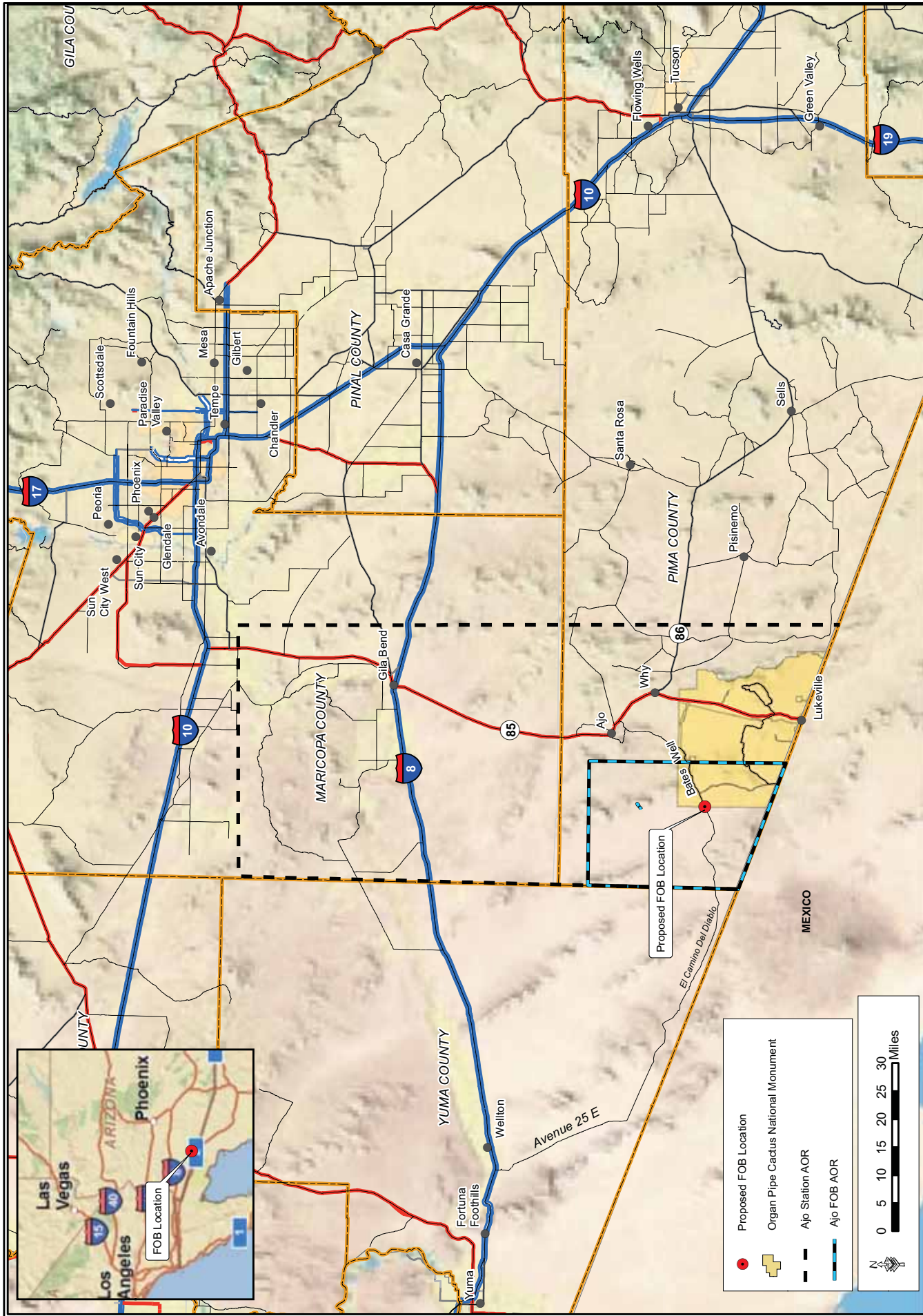


Figure 1-1: Vicinity Map

is summarized. Where previous NEPA documents do not provide sufficient information for the analysis required in this EA, new surveys for sensitive resources and site characterization were completed and reported in this EA.

1.2 PURPOSE AND NEED

The purpose of this project is to improve CBP's efficiency and safety within the USBP Tucson Sector, encompassing remote border zones in the Ajo Station AOR. USBP Agents assigned to patrol within the area may require 2 hours or more of travel time to reach their patrol areas after mustering at the Ajo Station. USBP Agents need to be deployed closer to the international border and remote western zones of the Ajo Station to improve efficiency and effectiveness during work shifts. With the improved deterrence afforded by the *SBI_{net}* technology deployed throughout the OPCNM, the far western zones of the AOR on the Cabeza Prieta National Wildlife Refuge (CPNWR) have had an increase in CBV activity. By providing a FOB with living quarters for additional Agents and refueling facilities, Agent response time to illegal cross-border activities would be greatly enhanced, and Agents could be more efficiently deployed to patrol the more remote sections of the Ajo Station AOR. The overall safety and efficiency of USBP Agents would be enhanced, as would the safety of employees and visitors on the OPCNM, the CPNWR, and the general public.

1.3 PUBLIC INVOLVEMENT

Consultation and coordination with Federal and state agencies and other stakeholders is ongoing during the planning and preparation of this document. Included are contacts that were made during the development of the action alternatives and writing of the EA. Copies of correspondence are provided in Appendix A. Formal and informal coordination was conducted with the following agencies and entities:

- USFWS
- OPCNM
- CPNWR
- Arizona Game and Fish Department (AGFD)
- Arizona Department of Environmental Quality (ADEQ)
- U.S. International Boundary and Water Commission
- Tohono O'odham Nation
- Hopi Tribe
- Pascua Yaqui Tribe

The draft EA was made available for public review for 30 days, and a Notice of Availability (NOA) was published in the Ajo Copper News and the Arizona Daily Star on August 3, 2011. The draft EA was also available electronically at <http://ecso.swf.usace.army.mil/Pages/Publicreview.cfm>.

All correspondence sent or received during the preparation of this document is included in Appendix B. CBP provided copies of the draft EA to all coordinating state and Federal agencies and affected Native American Tribes for review and comment. Forty comment letters and

emails were received during the public comment period. All pertinent comments were included in a comment response matrix and included in Appendix B.

CBP has considered the impacts of this project and determined that a Finding of No Significant Impact (FONSI) is the appropriate determination for this project. CBP informed the public of this decision by publishing an NOA (Exhibit 1-1) in the Ajo Copper News and the Arizona Daily Star in September 2011. The final EA and signed FONSI were also available electronically at <http://ecso.swf.usace.army.mil/Pages/Publicreview.cfm>.

Exhibit 1-1.

NOTICE OF AVAILABILITY

FINAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED AJO FORWARD OPERATING BASE AJO STATION'S AREA OF RESPONSIBILITY U.S. BORDER PATROL, TUCSON SECTOR

The public is hereby notified of the availability of the final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared by Customs and Border Protection for the expansion of the U.S. Border Patrol Ajo Station Forward Operating Base in Pima County, Arizona. The location for the proposed action is a 3-acre site along Bates Well Road at the western boundary of Organ Pipe Cactus National Monument.

The EA was prepared pursuant to the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (U.S.C.) 4321 *et seq.* The FONSI was prepared in accordance with CBP's obligations under NEPA, the Council on Environmental Quality (CEQ) implementing regulations at 40 Code of Federal Regulations (CFR) Parts 1500–1508, and DHS Management Directive 023-01 (Environmental Planning Program).

The final EA and FONSI will be available at the Pima County Public Library, Salazar-Ajo Branch, 33 Plaza, Ajo, Arizona. It is also available for download at the following URL address: <http://ecso.swf.usace.army.mil/Pages/Publicreview.cfm>.

1.4 SCOPE OF THE ANALYSIS

The scope of this EA includes the analysis of impacts on the human environment resulting from the expansion and operation of the existing Ajo tactical camp. This analysis does not include an assessment of USBP operations conducted in the field and away from the Ajo Station or the FOB. Those impacts were addressed in the December 2009 SBI^{net} Ajo-1 Tower Project EA (CBP 2009). While the establishment of this FOB would facilitate border patrol operations within the western portion of the Ajo Station AOR, those operations are not expected to change.

Current detection methodology within the Ajo Station's AOR includes traditional sign cutting which requires both patrolling and dragging of roads. To ensure timely detection and effective response, patrolling and dragging must take place on a regular basis within each shift. Remote

sensors are strategically placed to aid detection and interdiction of illegal activity. Detection methodology also relies on information provided from the recently installed *SBI*net towers.

Identification, classification, response, and resolution actions require that agents respond to evidence of illegal entry gained through the previously mentioned tools and techniques, as well as through direct observation. Agents, in most cases, follow signs as opposed to viewed subjects. They follow, flank and interdict using agents on foot, horseback, or motor vehicles. Rotary-winged aircraft are also used in support of these activities. These activities are guided by the provisions of the Cooperative National Security and Counterterrorism Efforts on Federal Lands along the United States' Borders Memorandum of Agreement between DHS, DOI, and U.S. Department of Agriculture (DHS 2006). CBP recognizes that execution of its border security mission can impact lands administered by other federal agencies, and continues to work cooperatively with other federal agencies to minimize any such impacts.

The allocation of agents within the Ajo Station AOR is dictated by the location of security threats along the border. The proposed Ajo FOB would provide greater efficiency for patrolling the western portion of the station's AOR. Currently, agents assigned to that portion of the Ajo Station AOR spend about 25 percent of their time on a daily shift commuting.

The following example illustrates how patrol activities would change within the AOR following establishment of the FOB. Currently, if the Patrol Agent in Charge determines that the threat level in the Ajo FOB AOR warrants an allocation of a hypothetical 100 agent hours per day, then 125 hours of agent time must be allocated to meet that 100 hour need with 25 percent of this time being spent on commuting. Once the Ajo FOB is operational, this 25 percent of lost time would be saved, since the agents would be pre-positioned. However, the actual amount of time spent by agents patrolling the Ajo FOB AOR and the nature and location of their duties would be unchanged.

What would change is that the number of trips taken by Agents from Ajo Station to the Ajo FOB along the Bates Well Road would be reduced during the times that the number of agents required for the border security mission in the AOR for the Ajo FOB exceeds the capacity of the current camp. CBP estimates that approximately 10,600 trips annually along the Bates Well Road would be eliminated following establishment of the FOB. Therefore, CBP has concluded that while the number of agents required to address a specified border security threat level and the number of trips on Bates Well Road would be reduced, the establishment of the FOB would result in no other change to field operations.

1.5 APPLICABLE ENVIRONMENTAL GUIDANCE, STATUTES, AND REGULATIONS

This EA was prepared in compliance with provisions of the NEPA of 1969 as amended (42 United States Code [U.S.C.] 4321 *et seq.*), Council on Environmental Quality's (CEQ) NEPA implementing regulations at 40 Code of Federal Regulations (CFR) Part 1500, and DHS *Directive 023-01*. This EA will be the vehicle for compliance with all applicable environmental statutes.

1.6 REPORT ORGANIZATION

This EA is organized into six major sections, including this introduction. Section 2.0 describes all alternatives considered for the project. Section 3.0 discusses the environmental resources potentially affected by the project and the environmental consequences for each of the viable alternatives. Section 4.0 discusses environmental design measures. Sections 5.0 and 6.0 present a list of the references cited in the document and a list of acronyms and abbreviations used in the document, respectively. Appendix A provides a copy of the OPCNM-issued Special Use Permit (IMR ORPI 9500 10-04) which allows for the operation of the existing tactical camp on the OPCNM. Correspondence generated during the preparation of this EA can be found in Appendix B. A list of Federal and state protected species for Pima County is included in Appendix C, and Appendix D provides the model calculations used to determine air quality impacts for the EA.

SECTION 2.0

PROPOSED ALTERNATIVES

2.0 PROPOSED ALTERNATIVES

Four alternatives were identified and evaluated in this EA: 1) the Proposed Action, 2) Fossil Fuel Generator, 3) CPNWR Location, and 4) No Action. The following paragraphs describe the alternative selection process and the alternatives considered.

2.1 PROPOSED ACTION

The Proposed Action would expand the existing USBP Ajo Station tactical camp on the northeast corner of the intersection of Bates Well Road and the western boundary of the OPCNM. Figure 2-1 is a conceptual layout of the proposed FOB. The existing tactical camp has a 1-acre footprint within the non-wilderness corridor which parallels Bates Well Road. The FOB would be built on a total of 3 acres within the non-wilderness corridor (Figure 2-2). Based upon potential site designs, it has been determined that a 3-acre project area is sufficient in size to accommodate FOB facilities supporting a maximum of 32 personnel. The FOB would be designed with modular buildings for more efficient construction and reduced costs. Efforts would be made when designing the FOB to meet the Leadership in Energy and Environmental Design (LEED) Silver certification by the U.S. Green Building Council. The proposed FOB would include the following components:

- Agent living quarters
- Support/maintenance building
- Detention Building
- Fuel Stations
- Dining facility
- Water well and water storage
- Generator(s)
- Vehicle parking
- Horse stalls and hay storage
- All-terrain vehicle (ATV) storage
- Secure storage
- Security lighting
- 8-foot chain-link security fencing
- Administration building

The proposed FOB construction activities are projected for the fall of 2011 through the spring of 2012. Full build-out of all proposed components, including full solar power capabilities, may be constructed in phases which could occur over up to 5 years. This EA will estimate that the solar panels would be installed by year 5. Until year 5, the FOB would rely on generators for full-time power.

A 6,400-square-foot solar array including batteries and switching/converting equipment would be installed to provide power for the FOB. The system would be backed up by a generator that would provide power to the site and would charge the battery bank, if needed. It is estimated that two 200-kilowatt generators would be needed to power the FOB. Only one generator would be in operation at any one time. The generators would be run on a weekly schedule, alternating operation and maintenance. Generators would be baffled to limit noise emissions to 35 A-weighted decibels (dBA) at 492 feet from the emission source. The solar panels would be attached to the rooftops of the FOB's modular buildings.

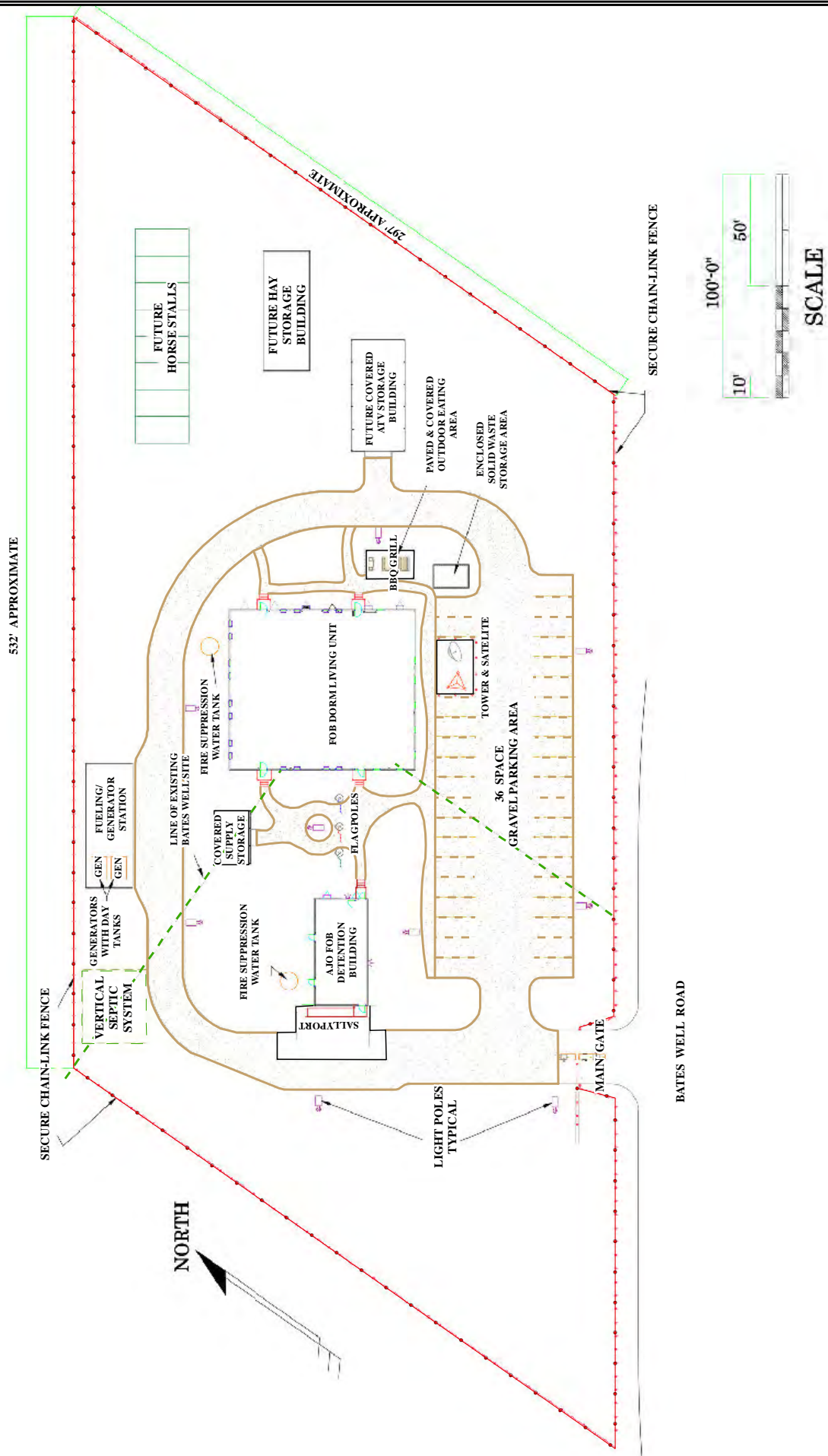


Figure 2-1: Conceptual Site Layout

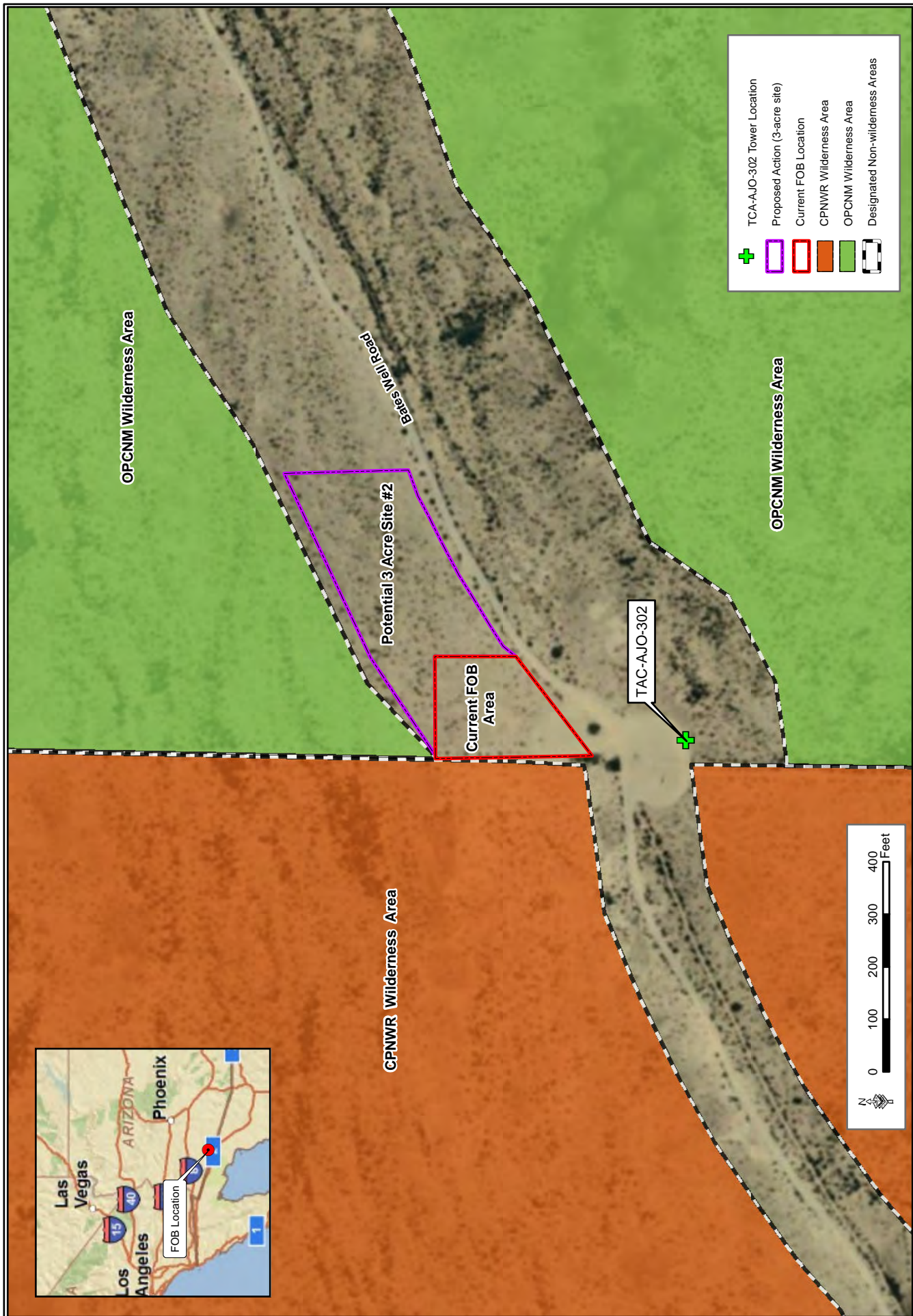


Figure 2-2: Project Location Map

A fuel facility with aboveground storage tanks (ASTs) or portable ASTs for vehicle and generator fuel would be included. Fuel requirements for vehicles and full-time generator use would be approximately 7,300 gallons per week. Both diesel and gasoline would be stored on-site. Fuel deliveries would be required once weekly via 8,600-gallon tanker truck. If a smaller tanker truck is necessary due to accessibility issues on Bates Well Road, additional trips would be necessary.

The agent living quarters and dining facility would support a maximum force of 32 Agents. CBP estimates that deployment of Agents to the FOB will be as follows: October to December, 8 to 16 agents; January to March, 16 to 24 agents; and April to September, 24 to 32 agents. The number of agents assigned to the FOB may vary based on border security requirements, but would not exceed the design capacity. Additional modular facilities would support office space, an armory, and a detention center capable of holding up to 40 detainees. All food and other supplies would be delivered weekly during shift change.

Water requirements at the FOB would be met by digging a well. If the well does not provide adequate quality or quantity of water for both potable and fire suppression requirements, water will continue to be trucked in from the Ajo Station. The estimates for potable water requirements are approximately 32 gallons per Agent per day and approximately 5 gallons per detainee. Therefore, 1,224 gallons of potable water per day would be required at the FOB.

Included in the FOB layout would be parking spaces for government-owned vehicles and specialized vehicles. Equestrian support facilities for up to eight horses at the FOB are also included in the conceptual design.

Maintenance at the FOB would include refilling fuel ASTs, delivery of food, equipment, and supplies, and if necessary, water. The number of maintenance trips and refueling trips will vary depending on the number of agents stationed at the FOB and rate of fuel usage. It is anticipated that four vehicle trips to and from the FOB per month will be required for maintenance. Tanker trucks with dual rear tires and/or rear dual axles with a gross vehicle weight of (GVW) 30,000 pounds will be used to deliver fuel. A total of approximately 48 vehicle trips per year will occur for maintenance activities.

The continued maintenance as well as potential renovations of or minor additions to the FOB would be expected. Such activities could include, but are not limited to, minor renovations and additions to buildings such as realigning interior spaces of an existing building, adding a small storage shed to an existing building. Other maintenance activities could include routine upgrade, repair, and maintenance of the FOB buildings, roofs, parking area, grounds, or other facilities which would not result in a change in its functional use (e.g., replacing door locks or windows, painting interior or exterior walls, culvert maintenance, grounds maintenance, or replacing essential components such as an air conditioning unit).

2.2 FOSSIL FUEL GENERATOR ALTERNATIVE

The Fossil Fuel Generator Alternative includes the same features and 3-acre footprint identified for the Proposed Action; however, the FOB would be powered solely by diesel generators with

battery backup systems. It is estimated that two 200-kilowatt generators would be needed to power the FOB. Generators would be baffled to limit noise emissions to 35 dBA at 492 feet from the emission source.

2.3 CPNWR LOCATION ALTERNATIVE

The CPNWR Location Alternative includes the same facility components identified for the Proposed Action; however, the FOB site would be located on the CPNWR adjacent to the north and south of El Camino del Diablo (Bates Well Road) and the CPNWR eastern boundary. The 3-acre site would be located entirely within the non-wilderness corridor which parallels El Camino del Diablo within the CPNWR (Figure 2-3). Power for the facility would be provided by solar or other alternative fuel sources with diesel generator backup.

2.4 NO ACTION ALTERNATIVE

The No Action Alternative would maintain the USBP Ajo Station tactical camp within its current 1-acre footprint, and no expansion would occur. Current equipment at the tactical camp includes three 8- by 24-foot connex boxes, a portable horse corral, three portable generators, one diesel fuel trailer, 1,000-gallon water truck, a 500-gallon water buffalo on a trailer, and one portable light generator. A 32-person, deep-discharge septic system was installed as part of the agreement with OPCNM and USFWS when the camp moved from the Bates Well site to the current location (see Appendix A).

The No Action Alternative serves as a basis of comparison to the anticipated impacts of the other action alternative, and its inclusion in this EA is required by NEPA regulations (40 CFR 1502.14(d)).

2.5 ALTERNATIVES CONSIDERED BUT ELIMINATED

2.5.1 Lukeville Location

Locating a FOB at Lukeville was proposed by the NPS and USFWS Arizona Ecological Services Office (AESO) as an alternative to this project. The level of illegal activity east of Lukeville is high; however, the distance from the USBP Ajo Station to patrol areas near Lukeville are easily accessible within 30 minutes on Arizona State Route 85. Additionally, the Lukeville FOB would not provide forward staging of Agents within the far western zones of the Ajo Station AOR. Staging Agents at a FOB in Lukeville would not meet the stated purpose and need of this project, nor would it improve the operational efficiency of the USBP Ajo Station.

2.5.2 Bates Well Road Improvements

An alternative providing for the improvement of Bates Well Road to reduce commuting time of agents was considered. In 2005, a project which proposed these improvements was in the early stages of planning, but the project was abandoned due to inadequate funding and immediate needs elsewhere. For the purposes of this document, the Bates Well Road Improvements alternative would include widening the existing driving surface of Bates Well Road to 18 feet, repairing degraded road sections, repairing incised road sections, and constructing water bars from the Bureau of Land Management (BLM)/OPCNM property boundary to the FOB. A soil

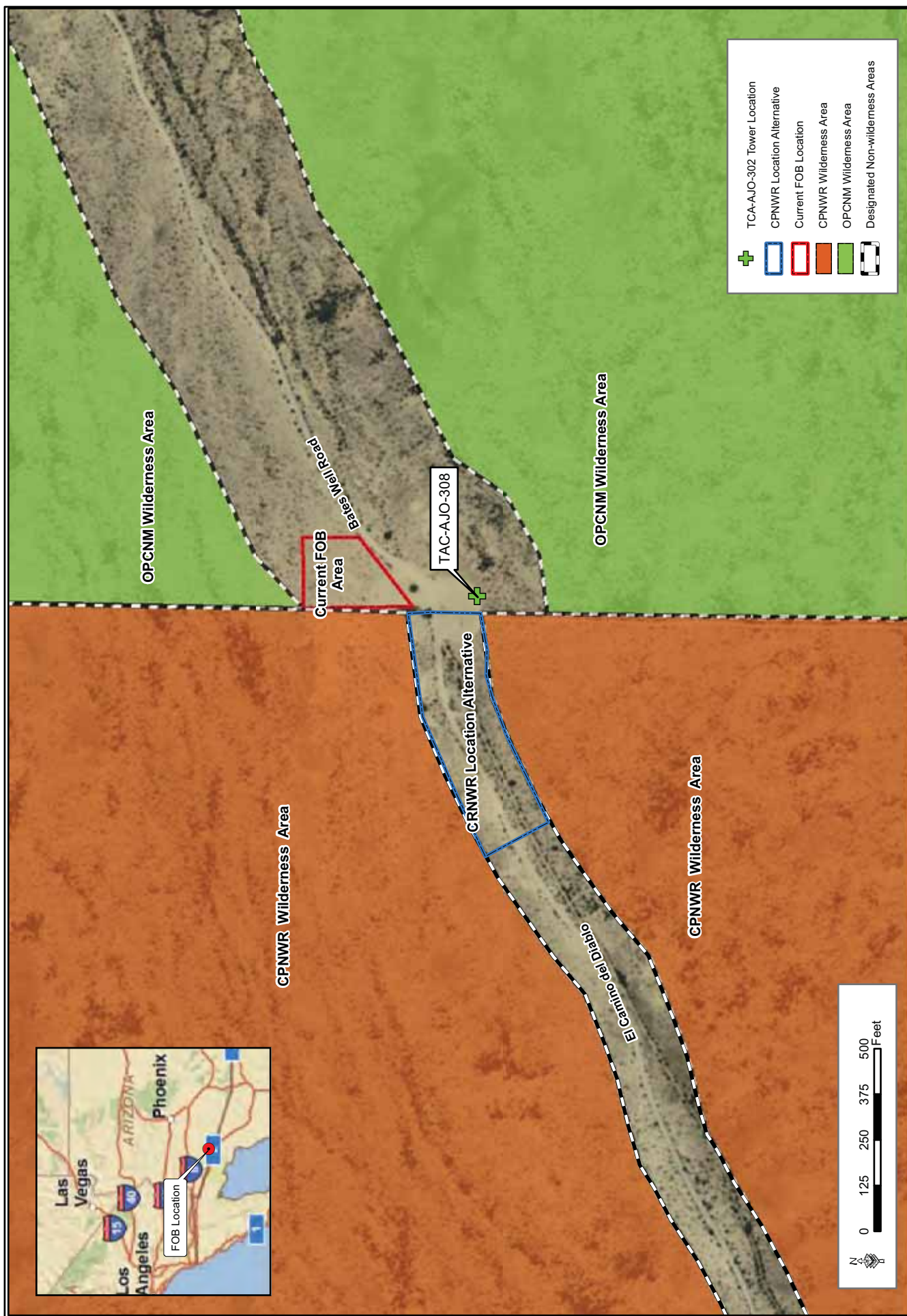


Figure 2-3: CPNWR Location Alternative Map

stabilizer would also be applied to the road surface. USBP would maintain approximately 13 miles of Darby Well Road on Bureau of Land Management lands during construction, and repair the road to pre-project conditions following construction. Darby Well Road would be used to access Bates Well Road from Ajo, Arizona.

This alternative would impact Bates Well Road which has been identified as a historic resource which may be eligible for the National Register of Historic Places. This alternative would also retain the current level of CBP use on Bates Well Road, which has been identified as a potential impact on the listed Sonoran pronghorn. While improvement of the road would reduce travel time to the remote western section of the Ajo Station AOR, it is likely that an hour of commuting time would still be required each way. Upgrading of the road would also not meet other border security requirements which would be met by construction of a FOB (i.e., detention facilities, forward positioning of equestrian facilities, and housing for up to 32 Agents). In addition, the upgrade of the road would be inconsistent with the congressional direction, because Congress has appropriated funds to CBP for the construction of two FOBs within the State of Arizona. Therefore, the alternative was not carried forward for detailed evaluation.

2.6 SUMMARY

The four alternatives selected for further analysis are the Proposed Action, the Fossil Fuel Generator Alternative, the CPNWR Location Alternative, and the No Action Alternative. An alternative matrix (Table 2-1) shows how each of these alternatives satisfies the stated purpose and need.

Table 2-1. Alternative Matrix Comparing Purpose and Need to Alternatives

Purpose and Need	Proposed Action	Fossil Fuel Generator	CPNWR Location	No Action Alternative
Expand the existing tactical camp	Yes	Yes	Yes	No
Provide a facility capable of housing up to 32 USBP Agents	Yes	Yes	Yes	No
Provide a detention facility	Yes	Yes	Yes	No
Decrease travel time from the Ajo Station to patrol areas	Yes	Yes	Yes	Partial*
Increase patrol efficiency and reduce response within the Ajo AOR	Yes	Yes	Yes	Partial*

* The No Action Alternative would partially meet the purpose and need due to the continued use of USBP Agents in the field and of the existing tactical camp

SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 IMPACT ANALYSIS

This section of the EA describes the natural and human environment that exists within the project area for this EA (as described in Section 1.1), and the potential impacts of the alternatives as outlined in Section 2.0 of this document. Only those resources with the potential to be impacted by the Proposed Action are described, per CEQ regulation (40 CFR 1501.7 [3]). Impacts can vary in magnitude from a slight to a total change in the environment. The impact analysis presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and professional opinions.

Some topics are limited in scope due to the lack of direct impact from the proposed project on the resource, or because that particular resource is not located within the project corridor and these resources are not addressed for the following reasons.

Climate

The climate would not be impacted by the construction and operation of the Proposed Action.

Prime Farmlands

The Proposed Action would not impact any soils designated as Prime Farmlands as protected under the Farmland Protection Policy Acts of 1980 (P.L. 97-98).

Surface Waters and Waters of the U.S.

The Proposed Action would not impact any surface waters or potentially jurisdictional waters of the United States because there are no surface waters or potential waters of the United States within the area proposed for the FOB expansion.

Wild and Scenic Rivers

The Proposed Action would not impact any designated Wild and Scenic Rivers (16 U.S.C. 551, 1278[c], 1281[d]) because no rivers designated as such are located within or near the proposed FOB expansion area.

Floodplains

The Proposed Action would not impact any floodplains because there are no floodplains within the area proposed for the FOB expansion.

Utilities

The FOB would be self-supporting; therefore, its expansion would not impact the availability or supply of public utilities.

A discussion of how impacts were defined was included in the December 2009 *SBI*net Ajo-1 EA, and is incorporated herein by reference (CBP 2009). In summary, impacts can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. The alternatives may create temporary (lasting the duration of construction), short-term (up to 3 years), or long-term (greater than 3 years) impacts.

Impacts on each resource can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major.

The following discussions describe and, where possible, quantify the potential impacts of each alternative on the resources within or near the project area. All impacts described below are considered to be adverse unless stated otherwise.

3.2 LAND USE

3.2.1 Affected Environment

A discussion of land use was included in the December 2009 *SBI*net Ajo-1 EA, and is incorporated herein by reference (CBP 2009). Land at the site of the Proposed Action and Fossil Fuel Generator Alternative is managed by NPS and USFWS. These lands are used primarily for the protection of the Sonoran Desert Ecosystem, for recreational and educational purposes, and for the conservation of desert bighorn sheep (*Ovis canadensis nelsoni*) on the CPNWR. Approximately 95 percent of OPCNM and approximately 93 percent of CPNWR are designated wilderness. Designated wilderness areas are discussed in detail in Section 3.3.

The location of the existing tactical camp was selected by the USFWS and NPS in cooperation with CBP. OPCNM allows the operation of the existing tactical camp under Special Use Permit number IMR ORPI 9500 10-04.

Currently, land uses within the project area are directly and indirectly affected by CBV pedestrian and vehicle traffic, and consequent law enforcement activities. Natural desert areas experience damage to native vegetation and soil compaction. The effect of illegal cross-border activities within the project area has a negative impact on wilderness, wildlife, recreation, and authorized land uses. Currently, the majority of the western portion of OPCNM is closed to the visiting public for safety reasons as a result of heavy illegal cross-border traffic and activities (NPS 2009a). Litter and human waste has degraded the visual and natural resources on OPCNM and CPNWR lands. Davis (2005) reported that BLM estimated that each pedestrian CBV deposits an average of 8 pounds of trash. Trash is generally distributed along major illegal routes but is highly concentrated in passes and frequently used areas where CBVs concentrate. Deposition of trash and human waste detracts from the wilderness aspect of Organ Pipe Cactus Wilderness and Cabeza Prieta Wilderness. Additionally, unauthorized vehicle routes and unauthorized trails, and man-caused fires (CBV warming fires and signal fires) disturb or destroy native vegetation and wildlife habitat. In 2004 and 2005, OPCNM staff documented 364 miles of off-road vehicle routes and tracks created by CBVs and consequent law enforcement activity (OPCNM 2005). On CPNWR, 500 miles of unauthorized entrenched roads and 700 more miles of unauthorized trails and loosely cut roads exist (Di Silvestro 2007 and Guillot 2007). Further, illegal cross-border activities destroy fences resulting in livestock trespassing, which results in additional damage to natural resources. Any fences damaged during required USBP interdiction activities are repaired by USBP agents following completion of the interdiction action (USBP 2009).

3.2.2 Environmental Consequences

3.2.2.1 *Proposed Action*

The Proposed Action would change the primary use on 2 acres of the 330,689-acre OPCNM from lands managed primarily for conservation purposes to lands developed with CBP facilities. The lands which would be developed are located along a public road, immediately adjacent to the existing Ajo Station tactical camp and across the public road from the 120-foot-tall SBInet tower (Photograph 3-1). The Proposed Action would have long-term, minor adverse impacts on land use in the project area.



Photograph 3-1. Overview of existing tactical camp with SBInet tower in background, facing south.

3.2.2.2 *Fossil Fuel Generator Alternative*

The Fossil Fuel Generator Alternative would have the same 2-acre direct impact on land use as the Proposed Action.

3.2.2.3 *CPNWR Location Alternative*

If the FOB expanded westward rather than eastward as under the Proposed Action, the land use impacts would shift from OPCNM lands to CPNWR lands. Therefore, 3 acres of the 860,810-acre CPNWR, which are managed primarily for conservation purposes, would change to developed lands with CBP facilities. The lands which would be developed are also located along a public road, immediately adjacent to the existing Ajo Station tactical camp and northwest of the 120-foot-tall SBInet tower. The expansion of the FOB would result in a long-term, minor adverse impact on land use in the project area.

3.2.2.4 *No Action Alternative*

Under the No Action Alternative, the tactical camp would not be expanded. No changes in land use would occur. The tactical camp encompasses approximately 1 acre of the OPCNM. More Agents would be required to patrol remote zones west of Bates Well Camp to account for the necessary drive time to their patrol post.

3.3 WILDERNESS

3.3.1 *Affected Environment*

The Wilderness Act of 1964 (Public Law [P.L.] 88-577 [Wilderness Act]) allowed for the establishment of a National Wilderness Preservation System and allows for the establishment of wilderness on Federally owned lands as designated by Congress. Areas designated as wilderness are to be administered in such a manner as to leave the lands undisturbed for future use and enjoyment by the public as wilderness and to provide protection of these areas for the preservation of their wilderness character. As defined by the Wilderness Act, wilderness should provide for the opportunities to experience solitude, unconfined recreation, and naturalness. To maintain the wilderness characteristics of designated wilderness areas, certain activities are prohibited, including commercial enterprise and permanent roads, and, except as necessary to meet minimum requirements for the administration of the area for the purpose of the Wilderness

Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation (16 U.S.C. 1131-1136).

Components of wilderness character include the presence of native wildlife at naturally occurring population levels; lack of human structures, roads, motor vehicles or mechanized equipment; lack of crowding or large groups; few or no human "improvements" for visitor conveniences; and little or no sign of biophysical damage caused by visitor use, such as trampled or denuded ground. Some intangible components of wilderness character include outstanding opportunities for reflection, freedom, risk, adventure, discovery, and mystery; places where self-reliance and safety are a personal responsibility; untrammeled, wild, and self-willed land not for sale; opportunities to experience our humanity as connected to the larger community of life; places that forever provide solitude and respite from modern civilization, its technologies, conventions, and conveniences. The area where the Ajo Station FOB is proposed for construction under both the Proposed Action and the CPNWR Location Alternative would not meet many of these wilderness character components (e.g., lack of human structures, roads, motor vehicles, little or no sign of biophysical damage caused by visitor use, untrammeled, respite from technologies). The areas, as previously described are adjacent to a public road and existing developments, impacted by CBV activity and where visitor access is at least partially restricted due to safety concerns.

There are designated wilderness areas on both the OPCNM and the CPNWR. Organ Pipe Cactus Wilderness was created within OPCNM by the National Parks and Recreation Act of 1978 (P.L. 95-625). It encompasses 95 percent (312,660 acres of designated wilderness and 1,240 acres of potential wilderness) of the OPCNM and was created to celebrate the life and landscape of the Sonoran Desert (NPS 1997). Cabeza Prieta Wilderness was created within CPNWR by the 1990 Arizona Wilderness Act (P.L. 101-628). It encompasses 93 percent (803,418 acres) of CPNWR and was created to preserve the Sonoran Desert Ecosystem. Within the Arizona Wilderness Act, Congress included the following provision:

“(g) Law Enforcement Border Activities. - Nothing in this title, including the designation as wilderness of lands within the Cabeza Prieta National Wildlife Refuge, shall be construed as—(1) precluding or otherwise affecting continued border operations by the Immigration and Naturalization Service, the Drug Enforcement Administration, or the United States Customs Service within such refuge, in accordance with any applicable interagency agreements in effect on the date of enactment of this Act;”

The existing tactical camp is located within a non-wilderness corridor which parallels the entire route of the Bates Well Road/El Camino del Diablo through the OPCNM and CPNWR. On the topic of development within non-wilderness areas directly adjacent to designated wilderness areas, Section 2(d) of the 1990 Arizona Wilderness Act includes the following provision:

No Buffer Zones - The Congress does not intend for the designation of wilderness areas in the State of Arizona pursuant to this title to lead to the creation of protective perimeters or buffer zones around any such wilderness area. The fact that non-

wilderness activities or uses can be seen and heard from areas within a wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.

Backcountry overnight use within OPCNM has been precluded for the last several years by the NPS due to visitor safety concerns. It is unknown when these current restrictions will be lifted. Therefore, there is currently no overnight wilderness use within OPCNM. NPS and USFWS estimate that visitor road use of the Bates Well Road is approximately 4,000 vehicles annually. Use by persons seeking a wilderness recreation experience in the project vicinity is not currently known, but not expected to be very high.

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action

The expanded FOB would not be located on any lands which have been designated as wilderness by Congress. However, the facilities would be audible and visible from wilderness lands adjacent to the FOB.

The FOB is an unnatural element in an area visited for its untrammled, natural, undeveloped setting with an outstanding opportunity for solitude. In the *SBI*net Ajo-1 Project EA, a viewshed analysis was conducted for the nearby tower site, TCA-AJO-302. Depending on the location and elevation of the viewer, the tower would be visible from the eastern portion of CPNWR (CBP 2009). It is possible that the current tactical camp and planned FOB would also be visible from locations within the designated wilderness areas. The Proposed Action would have a long-term, minor impact on the Cabeza Prieta Wilderness Area and the Organ Pipe Wilderness Area. Beyond a relatively short distance or without an overlook providing an observation point, there would be no impact on the region's wilderness characteristics. Congress has determined that sights and sounds from adjacent non-wilderness areas are not a sufficient reason to preclude wilderness designation. A number of wilderness areas have been designated adjacent to major cities. For example, the entire city of Tucson is visible from many locations within the Rincon Mountain Wilderness Unit of Saguaro National Monument. The proposed facility would be visible, but taken in the context of previously developed lands in the project vicinity; the increased visibility of these additional facilities would have a negligible additional impact on the wilderness experience, as most visitors would be driving the road which is adjacent to the existing tactical camp/proposed expanded FOB and *SBI*net tower facilities (see Photograph 3-1) to access the wilderness experience. The proposed FOB site does not meet many of the wilderness character components (i.e., untrammled, natural, undeveloped, provides outstanding opportunities for solitude).

Under the Proposed Action alternative, there would be temporary impacts due to construction activities which are expected to last several months. Construction equipment could produce noise emissions up to 81 dBA during the FOB expansion. The Federal Highway Administration has established a construction noise abatement criterion of 57 dBA for lands where serenity and quiet are of extraordinary significance (23 CFR 722, Table 1). A total of 39 acres of designated wilderness would be temporarily impacted by noise levels above 57 dBA during the expansion of the FOB. Noise emissions during construction activities would have a temporary, moderate

impact on the quality of designated wilderness. A detailed noise analysis is provided in Section 3.11.

The long-term noise footprint from backup generators and air conditioners would be smaller than the current noise footprint of the No Action alternative. The proposed FOB would run off of solar power with a diesel generator as a backup power source. The development of solar power would reduce the duration of generator noise emissions to only 2 to 4 hours per month. Noise emissions from the operation of the FOB would be localized and would have a long-term, minor impact on designated wilderness. Impacts from noise emissions would be less in both duration and magnitude than those currently experienced from the diesel generators in continuous use at the tactical camp site.

Given the relatively small area impacted by construction and operational noise, juxtaposition of the FOB adjacent to a public road in the vicinity of other developments and low wilderness visitor use levels in the project area, the proposed action is anticipated to have long-term, minor impacts on wilderness values.

3.3.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same visual impacts on wilderness as discussed for the solar-powered FOB in the Proposed Action; however, long-term impacts on noise levels would be greater. The proposed FOB would be powered by a 200-kilowatt diesel-fueled generator, running continuously. Although OPCNM has reported that ambient noise on OPCNM is 20 dBA, CBP, OPCNM, and USFWS have agreed that a noise emission at or below 35 dBA should be the goal for long-term noise levels (Sturm 2009). Therefore, wilderness qualities (e.g., serenity) would be degraded within this noise contour, which encompasses approximately 17 acres of the 1,116,078 acres of designated wilderness within CPNWR and OPCNM. Noise emissions from the operation of generators at the FOB would be localized and would have a long-term, moderate impact on designated wilderness.

3.3.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would be run on solar or other alternative fuel power with diesel generator backups. Impacts on the designated wilderness areas from noise and visual impediments would be the same as those described for the Proposed Action. However, Congress specifically authorized CBP operational activities when establishing the CPNWR wilderness area (P.L. 101-628).

3.3.2.4 No Action Alternative

Under the No Action Alternative, there would be long-term, moderate impacts on wilderness from noise emissions from the continuous use of the generator at the existing tactical camp. The generator is unbauffed and impacts approximately 64 acres of designated wilderness.

3.4 GEOLOGY AND SOILS

3.4.1 Affected Environment

Geology

As discussed in the SBI^{net} Ajo-1 Tower Project EA, the project area is part of the Basin and Range Physiographic Province as delineated by the U.S. Geological Survey (USGS and

California Geologic Survey 2000). The geology discussion is incorporated herein by reference (CBP 2009).

Soils

The mapped soil type at the proposed FOB expansion sites is the Growler-Antho complex (NPS 2005). The soil complex is a gravelly loam, with moderate permeability, and a slight to moderate erosion hazard. The erosion hazards are based on undisturbed soils. To prevent soil loss, best management practices (BMP) would be implemented, as described in the Stormwater Pollution Prevention Plan (SWPPP), during construction activities to avoid significant soil loss.

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

Geology

The Proposed Action primarily involves disturbances to topsoil layers. During construction activities, any holes or excavations for either perimeter fence posts or foundations for modular buildings would impact an area no larger than approximately 50 square feet and would not significantly alter the geologic features or processes in the project area.

Soils

Expansion of the FOB would have a direct permanent impact on 2 acres of Growler-Antho complex soils. The disturbance of 2 acres of soils would be minor when examined on a regional scale. The Growler-Antho complex covers approximately 16,243 acres on the OPCNM. Much of the expansion site for the FOB has been previously disturbed. Limited erosion would be expected during and immediately following construction activities. A SWPPP, including BMPs, would be prepared prior to construction. Additionally, CBP will obtain materials, such as gravel or topsoil, that are clean and acceptable to the land management agency from existing developed or previously used sources, not from undisturbed areas adjacent to the project area.

3.4.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same impacts on geology and soils as discussed for the solar-powered FOB in the Proposed Action.

3.4.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would cause the same impacts on geology and soils as discussed for the Proposed Action.

3.4.2.4 No Action Alternative

Under the No Action Alternative, there would be no expansion of the FOB. Therefore, there would be no additional impacts on the soils or geologic resources of the area. The current tactical camp disturbed 1 acre of the Growler-Antho complex soils.

3.5 HYDROLOGY AND GROUNDWATER

3.5.1 Affected Environment

The FOB expansion site is located in the Arizona Department of Water Resources (ADWR) Western Mexican groundwater basin. The Western Mexican Basin lies along the international

boundary with Mexico and occupies approximately 610 square miles on the U.S. side of the border. The basin is characterized by desert valleys and low-level mountain ranges. The average annual rainfall ranges from 4 inches per year in the western portion of the basin to 14 inches per year in the far eastern portion of the basin. Vegetation types include Lower Colorado River Valley and Arizona Uplands Sonoran Desertscrub (Brown 1991).

On the U.S. side of the Western Mexican Basin, the land use is almost exclusively Federal lands with no irrigated croplands. NPS monitoring data shows a decline in groundwater levels that has been attributed to water pumping from the aquifer, and drought (OPCNM 2011). On the Mexico side of the border, the basin (called the Sonoyta Valley aquifer) area is 5,000 square miles. Land use on the Mexican side of the basin is primarily agriculture. Agricultural irrigation draws a significant portion of its water needs from the Sonoyta Valley aquifer. Overall, the balance of water stored in the Western Mexican Basin experiences an annual deficit, and the amount of groundwater stored in the basin is steadily declining (ADWR 2008).

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Currently, all water at the existing tactical camp is brought to the site and stored in tanks for use. Under the Proposed Action, a water well would be established on-site to meet the demands of the FOB. Daily water usage would be up to approximately 1,024 gallons per day, assuming that 32 Agents would use 32 gallons of water each per day (Adkins 2011). The detention facility has a capacity of up to 40 people. By design, detainees would be at the site for a limited time, so it can be assumed that their water consumption would be minimal (e.g., 5 gallons of water each per day or up to 200 gallons per day total). Sanitary waste from toilets, showers, and sinks will continue to be collected and disposed of through an existing deep-discharge septic system with a leach field located on-site. If water needs at the FOB exceed what the water well can produce, or if the well water can be used for sanitary purposes only, potable water would be trucked into the FOB. Minor impacts on groundwater quality and availability would occur. The water well would be certified as potable, and CBP will comply with all applicable ADEQ regulations on drinking water.

The location of the well proposed to support the FOB would be within the 3-acre site. There is no evidence that groundwater in this location is hydrologically connected to the source of water for Quitobaquito Spring which provides habitat for the Quitobaquito pupfish (Carruth 1996).

Water required during construction would be brought to the site from an outside source. Additionally, a SWPPP would be prepared prior to construction and would contain drainage controls to prevent soil erosion. The planned FOB expansion would have a minor impact on hydrology and groundwater. Efforts to minimize the impact of the Proposed Action on all water resources are listed below.

- Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work shall cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within secondary containment areas consisting of an impervious floor and bermed

sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of drainages.

- A Construction Stormwater General Permit will be obtained prior to construction, and this would require approval of a site-specific SWPPP and Notice of Intent. A site-specific SPCCP will also be in place prior to the start of construction. Other environmental design measures will be implemented, such as silt fencing, aggregate materials, and wetting compounds to decrease erosion and sedimentation.
- CBP will avoid impacts on groundwater by obtaining treated water from outside the immediate area for construction use. CBP storage tanks containing untreated water will be of a size that, if a rainfall event were to occur, the tank (assuming open) will not be overtopped and cause a release of water into the adjacent drainages. Water storage on the project area will be in on-ground containers located on upland areas, not in washes.

3.5.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same impacts on groundwater and hydrology as discussed for the solar-powered FOB in the Proposed Action.

3.5.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would cause the same impacts on hydrology and groundwater as discussed for the Proposed Action.

3.5.2.4 No Action Alternative

The No Action Alternative would not impact hydrology and groundwater, as the FOB would not be expanded. All water used at the existing tactical camp is brought to the site, stored in tanks for use, and treated in the on-site septic system. Indirect impacts from illegal activity would continue.

3.6 VEGETATIVE HABITAT

3.6.1 Affected Environment

Biological surveys of proposed FOB expansion areas on the OPCNM and CPNWR were conducted in March 2011. The survey area included a 300-foot buffer zone around both the existing tactical camp and the potential FOB expansion site. An additional area (approximately 3 acres) was surveyed on CPNWR as an alternative. The vegetative habitat observed within both surveyed areas is considered Sonoran Desertscrub Lower Colorado River Subdivision as described by Brown (1994). A discussion of this vegetative habitat type is incorporated herein by reference from the December 2009 SBI^{net} Ajo-1 EA (CBP 2009). Dominant vegetation observed within the survey area includes creosote bush (*Larrea tridentata*) and triangle-leaf bursage (*Ambrosia deltoidea*). Other perennial vegetation noted includes: white bursage (*Ambrosia dumosa*), velvet mesquite (*Prosopis velutina*), wolfberry (*Lycium* sp.), barrel cactus (*Ferocactus emoryi*), night-blooming cereus (*Peniocereus greggii*), and big galleta (*Pleuraphis rigidus*). The area was extremely dry at the time of the survey and no living annual vegetation was observed. However, dried remnants of several annual species were noted: fiddleneck

(*Amsinkia intermedia*), wooly plantain (*Plantago insularis*), spiny herb (*Chorizanthe rigida*), peppergrass (*Lepidium lasiocarpum*), a mustard (*Brassica* sp.), and bladderpod (*Lesquerella gordonii*). Dried infructescences of Ajo lily (*Hesperocallis undulatus*) were also noted.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

The Proposed Action would result in the permanent loss of approximately 2 acres of Sonoran Desertscrub vegetation community. The Sonoran Desertscrub vegetation community is extremely common, and vast areas of similar vegetation are protected by their inclusion on lands managed by CPNWR, Barry M. Goldwater Bombing Range, Buenos Aires National Wildlife Refuge, OPCNM, and the Tohono O'odham Nation.

The direct permanent degradation and removal of 2 acres of vegetation would have a long-term, negligible adverse impact on the overall Sonoran Desertscrub vegetation communities within OPCNM. Efforts to minimize the direct loss of vegetation communities are listed below.

- CBP will minimize habitat disturbance by restricting vegetation removal to the smallest possible project footprint. CBP will limit the removal of cacti and brush to the smallest amount needed to meet the objectives of the project.
- CBP will use natural materials free of non-native plant seeds and other plant parts to limit potential for infestation for on-site erosion control in uninfected native habitats. Natural materials will be certified weed and weed-seed free. CBP will identify fill material brought in from outside the project area by its source location and will use sources that are clean and weed-free. Outside fill material must be approved by the land management agency prior to use.
- CBP will document any establishment of non-native plants and will implement appropriate control measures.

3.6.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same impacts on vegetation communities as discussed for the solar-powered FOB in the Proposed Action.

3.6.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would cause the equivalent impacts on 3 acres of vegetation communities as discussed for the Proposed Action.

3.6.2.4 No Action Alternative

No direct impacts would occur, as the FOB would not be expanded. The existing tactical camp has impacted 1 acre of highly disturbed Sonoran Desertscrub.

3.7 WILDLIFE AND AQUATIC RESOURCES

3.7.1 Affected Environment

A description of Sonoran Desert wildlife typical for the project area was discussed in detail in the December 2009 SBI^{net} Ajo-1 EA. That discussion is incorporated herein by reference (CBP 2009).

Biological surveys of proposed FOB expansion areas on the OPCNM and CPNWR were conducted in March 2011. Animals observed during the March 2011 survey effort include: jumping spider (*Phidippus* sp.), western whiptail (*Aspidoscelis tigris*), side-blotched lizard (*Uta stansburiana*), Eurasian collared dove (*Streptopelia decaocto*), common raven (*Corvus corax*), sage thrasher (*Oreoscoptes montanus*), phainopepla (*Phainopepla nitens*), loggerhead shrike (*Lanius ludovicianus*), and coyote (*Canis latrans*).

3.7.2 Environmental Consequences

3.7.2.1 Proposed Action

The permanent loss of up to 2 acres of Sonoran Desert vegetation communities would have a minimal impact on wildlife. Soil disturbance and operation of heavy equipment could result in the direct loss of localized individuals such as lizards, snakes, and ground-dwelling mammal species. However, most wildlife would avoid any direct harm by escaping to surrounding habitat. The direct degradation and loss of habitat could also impact burrows and nests, as well as cover, forage, and other important wildlife resources. The loss of these resources would result in the displacement of individuals which would then be forced to compete with other wildlife for the remaining resources. Although this resulting competition for resources could result in a reduction of total population size, this reduction would be extremely minimal in relation to total population size and would not result in long-term impacts on the sustainability of any wildlife species. The Proposed Action would have a short-term, minor adverse impact on wildlife resources.

Increased vehicular traffic along Bates Well Road during construction of the proposed FOB could also cause minor impacts on wildlife; however, since construction traffic represents a small fraction of the total road use, any such impacts would be negligible.

The long-term noise emissions associated with operation of the solar-powered FOB (i.e., generators and air conditioners) would be sporadic, only occurring when this equipment is operating. It is anticipated that wildlife would become accustomed to these intermittent and minimal increases in noise, and that subsequent avoidance of the FOB and any adjacent habitats would be minor. Noise emissions expected from the solar- or alternative-fueled FOB would be considerably less invasive than the current unbaffled generators at the tactical camp. Conservation measures listed below would reduce disturbance and loss of wildlife habitats.

- The Migratory Bird Treaty Act (16 U.S.C. 703-712, [1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989]) requires that Federal agencies coordinate with the USFWS if a construction activity would result in the take of a migratory bird. If construction or clearing activities are scheduled during nesting seasons (March 15 through August 31), surveys will be performed to identify active nests.
- To prevent entrapment of wildlife species during construction, CBP will cover all excavated, steep-walled holes or trenches more than 2 feet deep at the end of each working day with plywood or provide these holes with escape ramps of earthen fill or wooden planks. Biological monitors will thoroughly inspect all holes and trenches for trapped animals, and if animals are present, no construction can resume until the animals are out of the pit or trench.

- Biological monitors will check under construction equipment for wildlife species (e.g., desert tortoise) prior to moving equipment that has sat idle for more than 1 hour.

3.7.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same impacts on wildlife as discussed for the solar-powered FOB in the Proposed Action during construction; however, impacts on wildlife from increased noise levels would be greater. Long-term noise emissions from the FOB generators would be attenuated to 35 dBA beyond 492 feet of the FOB. Noise emissions from the continuous operation of the generators at the FOB would be localized and would have long-term, minor impacts on wildlife.

3.7.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would be run on solar or other alternative fuel power with diesel generator backups. Impacts on wildlife from noise would be the same as those described for the Proposed Action.

3.7.2.4 No Action Alternative

Under the No Action Alternative, there would be long-term, minor impacts on wildlife from noise emissions from the continuous use of the generator at the existing tactical camp. The generator is unbaffled and impacts approximately 64 acres.

3.8 PROTECTED SPECIES AND CRITICAL HABITATS

3.8.1 Affected Environment

A description of the Endangered Species Act (ESA) and how it protects Sonoran Desert species in the project area was included in detail in the December 2009 SBInet Ajo-1 EA. That discussion is incorporated herein by reference (CBP 2009). Biological surveys of the project area were conducted in March 2011. All Federal, NPS, and state-protected species potentially occurring in the project area were included in the surveys. The surveys were conducted to determine presence or absence, and no specific protocols were used.

3.8.2 Federal

USFWS lists 14 species as endangered, two as threatened, and three as candidate species within Pima County (Table 3-1; Appendix C). Not all of these species occur within the vicinity of the FOB. Two endangered species have the potential to occur within or near the project area, the lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*) and Sonoran pronghorn. An ecological description of the lesser long-nosed bat and Sonoran pronghorn was included in detail in the December 2009 SBInet Ajo-1 EA, and that discussion is incorporated herein by reference (CBP 2009). No critical habitat has been designated for either of these species.

The ESA consultation regulations (50 CFR 402) require that agencies undertake an analysis of impacts arising from interrelated and interdependent actions associated with the Proposed Action. The regulations define interrelated actions as actions which are part of a larger action and depend on the larger action for their justification, and interdependent actions are defined as those actions which have no independent utility apart from the action under consideration. The USFWS ESA Consultation Handbook (USFWS 1998) suggests application of the “but for” test

Table 3-1. Federally Listed and Proposed Species Potentially Occurring Within Pima County, Arizona

Common/Scientific Name	Federal/State Status	Habitat	Potential to Occur within or near the Project Area
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Candidate	Large blocks of riparian woods.	No – No suitable habitat
Masked bobwhite (<i>Colinus virginianus ridgewayi</i>)	Endangered	Desert grasslands with diversity of dense native grasses, forbs, and brush.	No – Presently only known to occur on Buenos Aires NWR
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Cottonwood/willow and tamarisk vegetation communities along river and streams.	No – No suitable habitat
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	Endangered	Coastal lands and islands, also found around lakes and rivers inland.	No – No suitable habitat
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened	Nests in canyons and dense forests with multi-layered foliage structure.	No – No suitable habitat
Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>)	Endangered	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations. Current distribution known to occur on the CPNWR.	Yes - Species present on CPNWR and western OPCNM
Ocelot (<i>Leopardus pardalis</i>)	Endangered	Dense, thorny chaparral communities and cedar breaks.	No – No suitable habitat
Lesser long-nosed bat (<i>Leptonycteris curasoae yerbabuenae</i>)	Endangered	Desertscrub habitat with agave and columnar cacti present as food plants.	Yes – Potential foraging habitat present within project area
Jaguar (<i>Panthera onca</i>)	Endangered	Found in Sonoran desertscrub up through subalpine conifer forest.	No – Extirpated from the area
Sonoyta mud turtle (<i>Kinosternon sonoriense longifemorale</i>)	Candidate	Occurs in pond and streams; however, it is restricted to Quitobaquito Springs and nearby stream habitat.	No – Known to occur at Quitobaquito Springs, but outside of project corridor
Chiricahua leopard frog (<i>Rana chiricahuensis</i>)	Threatened	Streams, rivers, ponds, backwaters, and stock tanks that are mostly free from exotic species at elevations ranging from 1,200 to 4,000 feet.	No – No suitable habitat
Desert pupfish (<i>Cyprinodon macularius</i>)	Endangered	Shallow springs, small streams, and marshes. Tolerant of saline and warm water.	No – Known to occur at Quitobaquito Springs, but outside of project corridor
Gila chub (<i>Gila intermedia</i>)	Proposed Endangered	Pools, springs, cienegas, and streams within the Gila River system.	No – Known populations occur within the Gila River drainage
Gila topminnow (<i>Poeciliopsis occidentalis occidentalis</i>)	Endangered	Small streams, springs, and cienegas within the Gila River system.	No – Known populations occur within the Gila River drainage
Kearney blue star (<i>Amsonia kearneyana</i>)	Endangered	West-facing drainages in the Baboquivari mountains.	No – Project area is west of Baboquivari Mountains

Table 3-1, continued

Common/Scientific Name	Federal/State Status	Habitat	Potential to Occur within or near the Project Area
Pima pineapple cactus (<i>Coryphantha scheeri</i> var. <i>robustispina</i>)	Endangered	Ridges in semi-desert grassland and alluvial fans in Sonoran desertscrub with elevation ranges from approximately 2,300 to 5,000 feet.	No – Known populations occur in east Pima County at high elevations
Nichol Turk's head cactus (<i>Echinocactus horizonthalonius</i> var. <i>nicholii</i>)	Endangered	Unshaded microsites in Sonoran desertscrub on dissected limestone mountains.	No – Known populations occur in east Pima and south Pinal counties
Huachuca water umbel (<i>Liaepsis schaffneriana</i> var. <i>recurva</i>)	Endangered	Cienegas, perennial low gradient streams, wetlands.	No – Known populations found in San Pedro and Santa Cruz River Basins
Acuña cactus (<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>)	Candidate	Acuña cacti are found on granite substrates on rounded small hills at elevations ranging from 1,300-2,000 feet.	No– Known populations are located on OPCNM approximately 8 miles north of the U.S.-Mexico border; however, no individual of this species was observed during the biological field surveys

Source: USFWS 2011b

to determine whether there are interrelated or interdependent actions which require analysis. Since CBP would continue to deploy resources to achieve its border security mission within the Ajo Station AOR regardless of the establishment of the Ajo FOB, there are no interrelated or interdependent activities to be analyzed for ESA compliance.

3.8.2.1 *Sonoran Pronghorn*

The United States range of the Sonoran pronghorn encompasses approximately 1.6 million acres (USFWS 1998) though only portions of this range provide optimal habitat for the species and optimal habitat varies seasonally and is highly dependent on localized rainfall patterns. The current population of Sonoran pronghorn within the United States range is 170 animals, of which 70 are currently confined to holding pens on CPNWR (USFWS 2011a). Thus, 100 non-captive animals are currently distributed across 1.6 million acres. The species range is confined to lands administered by the following four Federal agencies: NPS (OPCNM), USFWS (CPNWR), BLM and Department of Defense (Barry M. Goldwater Range). Telemetry data and visual records from USFWS, AGFD, and OPCNM have shown that areas associated with the Valley of the Ajo, Growler Valley, and San Cristobal Wash, among others, are or were commonly occupied by Sonoran pronghorn. Based on telemetry data and previous biological surveys, Sonoran pronghorn could occur in the vicinity of the proposed action.

Since 1994, AGFD has been collecting location data and seasonal movement pattern information from weekly aerial surveys of radio-collared pronghorn. AGFD has also collected daily location information from other radio-collared pronghorn. The location data from radio-collared pronghorn has been recently supplemented by monitoring data collected in the project vicinity during days of construction activities by CBP from February 1, 2010 until March 12, 2011. This data was collected pursuant to a Biological Opinion issued for the *SBI*net tower project on OPCNM and adjacent lands (USFWS 2009), and resulted in collection of location data for both radio-collared and non-collared pronghorn. This Biological Opinion required CBP to position an environmental monitor in a skybox located approximately 1 mile east of the proposed FOB during construction of *SBI*net tower TCA-AJO-302 and during relocation of the Bates Well Camp to its current location. Observational data was collected during a total of 120 days (Gulf South Research Corporation [GSRC] 2011 and HDR 2011). The protocol for these observations was as follows:

Before any construction work commenced each day, the monitor conducted hilltop surveys (visual and telemetry, if appropriate) for Sonoran pronghorn at sunrise in close coordination with land managers. If Sonoran pronghorn were detected within 2 miles of the proposed daily project activities, no project work commenced until the Sonoran pronghorn moved, of their own volition, to a distance greater than 2 miles from the activities. During 120 days of observations at this site, a total of 7 individuals or groups of pronghorn were observed, with only a single male being recorded within two miles of the construction activities. Work was suspended until this individual moved more than three miles from the project area. Since no construction activities occurred at any time pronghorn were within less than two miles of the construction area, CBP has determined that these construction activities resulted in no adverse impact on pronghorn.

The USFWS has concluded that pronghorn are particularly susceptible to stress caused by disturbance during the fawning season due to increased energetic demands during this period

(USFWS 2009). As a result, both the NPS on OPCNM and the USFWS on CPNWR have instituted visitor travel restrictions from March 15 to July 15 across the species' range. A review of the weekly AGFD data documents that no radio-collared pronghorn have been recorded within two miles of the FOB expansion site during the last five fawning seasons (Figure 3-1). A review of the data collected from pronghorn on a daily basis documents that a single female pronghorn used habitat in the vicinity of the proposed FOB in 2009-2010.

The rare occurrence of Sonoran pronghorn in the project area was anticipated by CBP, since the present location of the relocated Bates Well Camp was recommended to CBP by the Department of the Interior to offset the impacts of the proposed *SBI*net tower construction project on Sonoran pronghorn (USFWS 2009).

Dominant vegetation observed within the proposed footprint of the FOB includes creosote bush (*Larrea tridentata*) and triangle bur ragweed (*Ambrosia deltoidea*); and other perennial vegetation observed includes burrobush (*Ambrosia dumosa*), velvet mesquite (*Prosopis velutina*), wolfberry (*Lycium* sp.), Emory's barrel cactus (*Ferocactus emoryi*), night-blooming cereus (*Peniocereus greggii*), and big galleta (*Pleuraphis rigida*). A review of pronghorn diet as reported in the scientific literature (USFWS 1998) supports a conclusion that many of the perennial species identified as important in the pronghorn diet are not found on this site. However, due to the March survey date of the site, the composition of annual species cannot be fully assessed and it is possible that the proposed 2-acre site could provide seasonal forage for Sonoran pronghorn.

3.8.2.1 Lesser Long-nosed Bat

Lesser long-nosed bats are seasonally present in the vicinity of the project area from April to September when preferred species of blooming agave and cacti provide forage for these nectar-feeding bats. During the daylight hours, bats concentrate in roosts from which they emerge at dusk on foraging bouts up to 35 miles from the roost. Three roosts have been identified on NPS- and USFWS-administered lands. The proposed FOB expansion site is 8.3 miles from the nearest of these roosts and is within the foraging range from this roost site.

In March 2011, CBP conducted a site inventory of the proposed FOB expansion site. This survey confirmed that there are no plants which provide food for this species within the proposed disturbance footprint (under any alternative). A single saguaro cactus (*Carnegiea gigantea*) was located approximately 875 yards from the proposed FOB expansion site.

3.8.3 State

AGFD Natural Heritage Program maintains lists of wildlife of special concern (WSC) in Arizona. This list includes fauna whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines (AGFD 2010). These species are not necessarily the same as those protected under the ESA. A list of these species is presented in Appendix C. No Arizona WSC or NPS sensitive species were observed within the project area during the March 2011 biological survey.

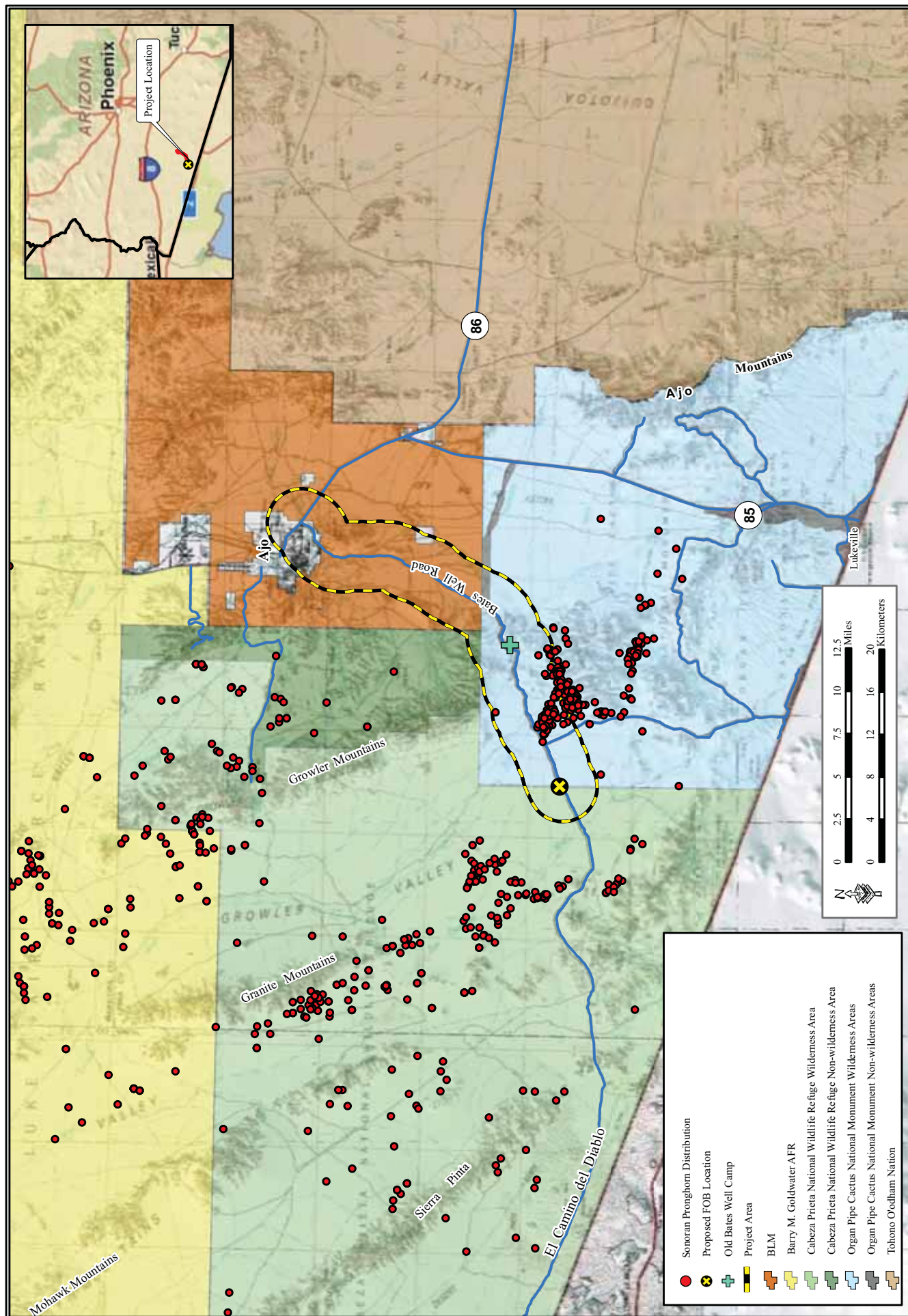


Figure 3-1: Sonoran Pronghorn Fawning Season (2006 - 2011)

The Arizona Department of Agriculture (ADA) maintains a list of protected plant species within Arizona. The 1999 Arizona Native Plant Law defined five categories of protection within the state: 1) Highly Safeguarded, no collection allowed; 2) Salvage Restricted, collection only with permit; 3) Export Restricted, transport out of state prohibited; 4) Salvage Assessed, permit required to remove live trees; and 5) Harvest Restricted, permit required to remove plant byproducts (ADA 2007). A list of native plants protected by the ADA is included in Appendix C.

Eleven individuals of two state-protected, Salvage Restricted cacti species (eight Emory's barrel-cactus [*Ferrocactus emoryi*] and three night-blooming cereus [*Peniocereus greggii* var. *transmontanus*]) were observed within the survey area during the March 2011 biological survey. One Emory's barrel cactus is within the 2-acre FOB expansion site on the OPCNM. Within the proposed footprint for the CPNWR Alternative, there are two night-blooming cereus and one Emory's barrel cactus. These plants can be salvaged before construction begins to avoid impacts.

3.8.4 Environmental Consequences

3.8.4.1 Proposed Action

The potential environmental consequences from the proposed expansion of the Ajo FOB on listed species could result from two sources. These sources are temporary construction impacts and long-term operational impacts, extending the duration of Ajo FOB operations. All impacts arising during construction and operation of the FOB would be direct impacts, there are no indirect impacts anticipated from the Proposed Action.

Based on known occurrences, existing preferred habitat, potential home range, and foraging habitats overlapping with the FOB expansion footprint, the Sonoran pronghorn and lesser long-nosed bat would potentially occur within the vicinity of the project. Therefore, these two species could be impacted by the Proposed Action.

FOB Construction-related Impacts

The sources of temporary construction impacts includes transient vehicular access to the proposed site along the existing Bates Well Road, construction activities on the 2-acre area which would be developed as the Ajo FOB, and attendant noise. Direct impacts from these activities could result from collisions with vehicles either traveling the Bates Well Road or within the construction footprint, loss of habitat, or disturbance due to noise.

Vehicles using the Bates Well Road include NPS, USFWS, and BLM administrative use, CBP patrol and administrative use in support of facilities, and visitors to OPCNM and CPNWR. The total number of annual vehicle trips on the Bates Well Road can only be estimated. The USFWS reports issuing approximately 4,000 vehicle permits for access to the refuge annually. The USFWS recently opened public roads on the CPNWR to ATVs and street legal motorcycles, which is expected to increase public vehicle use of this road (USFWS 2011c). CBP estimates that 14,000 trips are currently made on the Bates Well Road annually to provide patrol in the western portion of the Ajo Station AOR. The total number of trips necessary by construction vehicles is estimated to be several hundred during the FOB expansion and therefore would constitute a minor increase in current road use levels.

In the only study designed to specifically examine human impacts on behavior of an unconfined population of Sonoran pronghorn, Krausman et al. (2004) recorded 44,375 observations of pronghorn behavior on Barry M. Goldwater Range and Buenos Aires National Wildlife Refuge. Of these observations, 2,121 were related to human ground-based stimuli (vehicles and foot traffic). Based on his observations, Krausman et al. concluded that pronghorn habituated to both ground-based and aerial military activity exhibited a flight response to these human activities approximately 5 percent of the time and that impacts of these activities were not biologically significant. In addition, USFWS (2009) has reported that there is no record of a Sonoran pronghorn in Arizona being struck and killed by a motor vehicle.

Additional potential direct impacts along the Bates Well Road and the FOB expansion site arise from construction traffic noise. As previously discussed, construction traffic represents a small fraction of actual Bates Well Road use; therefore, the noise caused by the addition of this construction traffic would not significantly increase the range at which Bates Well Road traffic noise is audible by pronghorn.

It is also possible that pronghorn may be exposed to noise arising from construction activities at the FOB site. Construction noise at the FOB site is anticipated to be audible at a level of 57 dBA or higher over an estimated 39 acres. This noise disturbance footprint represents a small fraction of the 1.6 million-acre pronghorn range.

Krausman et al. (2004) sampled ambient sound levels on portions of the BMGR routinely used by pronghorn for 242 days between the fall of 1998 and the summer of 1999. Krausman's research team recorded average 24-hour sound levels during training periods of 65.2 dBA and peak levels as high as 122 dBA. When combined with their observations of behavior during overflight events, Krausman et al. concluded that pronghorn habituated to military activities, including noise. This is similar to other researchers who concluded that Sonoran pronghorn either habituate to noise or that noise impacts are minor (Workman et al. 1992, Weisenberger et al. 1996, DeVos 1989, and Dames and Moore 1995).

Vegetation surveys of the proposed FOB site determined that preferred perennial forage used by Sonoran pronghorn is not found on-site, though due to the time of year the site was surveyed, the presence of annual forage species could not be determined. The quality of the forage is consistent with limited use of the area around the project site by pronghorn as found in AGFD telemetry data. In fact, data provided by AGFD reflects that there has been no recorded use of the habitat within 2 miles of the proposed FOB during fawning season by radio-collared animals over the last 4 years (see Figure 3-1). Observations by CBP environmental monitors confirm the infrequent use of this area by both collared and non-collared pronghorn.

Most research on the physiological impacts of noise or other potential human stressors on wild populations has been conducted on avian species. These studies suggest that the response of wild populations to human activity is variable. For example, Hayden et al. (2009) determined that military training at Fort Hood did not elicit a chronic stress response as indexed by corticosterone levels, and Tempel and Guitierrez (2003) found that exposure to chainsaw noise resulted in no increase in fecal corticosterone for California spotted owls, while Wasser et al.

(1997) found that fecal corticosterone did increase in California spotted owls based on proximity to logging roads.

Several studies of physiological impacts of human stressors on large mammals have focused primarily on human transportation-related stressors. For example, Weisenberger et al. (1996) conducted studies of the impacts of simulated overflights on the heart rates of penned desert bighorn sheep and mule deer. He reported that while heart rates and activity patterns were altered by simulated overflights, heart rates returned to normal within 1 to 3 minutes and activity patterns returned to normal within about 4 minutes. Based on the results from this study, the authors concluded that aircraft noise events were of such short duration and recovery was so rapid that it was unlikely that low flying aircraft would result in adverse impacts on the species.

Using immunoassays of fecal glucocorticoid levels in wolves and elk from 3 national parks where the animals were exposed to snowmobile traffic, Creel et al. (2002) determined that glucocorticoid levels were higher in animals exposed to snowmobile traffic. However, the authors concluded that the animals were able to compensate for any physiological impacts of snowmobile traffic and exhibited normal patterns of survival and recruitment. Using similar fecal glucocorticoid analysis techniques, Munshi-South et al. (2008) found that the elephants in National parks exhibited significantly higher levels of glucocorticoid metabolite levels than elephant populations outside of parks which were subject to oil development and commercial logging.

It is likely that stress in wild populations is influenced by a variety of natural factors in addition to human causes. No studies of physiological stress in Sonoran pronghorn populations have been undertaken, and there is no evidence that these animals suffer from any chronic stress condition due to either human or natural environmental conditions. Although antelope will not be exposed to any new human stressors as a result of this project, the existing literature cannot be used as a basis to conclude that the physiological impacts of construction activities are insignificant.

Based on the infrequent use of lands in the vicinity of the project area by pronghorn, the limited increase in Bates Well Road traffic arising from construction vehicle use, past research on the effects of ground-based vehicles on pronghorn, and the fact that a Sonoran pronghorn has never been struck and killed within Arizona, CBP concludes that impacts from construction vehicles along the Bates Well Road and proposed FOB are extremely unlikely to occur. Based on the infrequent use of lands in the vicinity of the project area, the quality of forage in the project area and the size of the project area in relation to the 1.6 million-acre range of the pronghorn, CBP concludes that impacts resulting from habitat loss are not significant. Noise resulting from this project will not raise ambient sound levels across a significant portion of the species range (e.g. 39 acres in the vicinity of the FOB will experience sound levels exceeding 57 dBA) and will not exceed ambient sound levels currently experienced by pronghorn in other portions of their range. However, due to the varying nature of impacts of human activity on wild populations and the lack of species-specific physiological data for pronghorn, CBP has determined that FOB construction activities may affect and are likely to adversely affect Sonoran pronghorn.

FOB Operational-related impacts

Potential impacts on pronghorn arising from operational activities at the FOB include: noise impacts, impacts from water and diesel fuel deliveries, and expansion of the area of artificial lighting. Table 3-2 compares the potential stressors on Sonoran pronghorn from operational activities at the current tactical camp (No Action Alternative) and as expected under the Proposed Action.

Table 3-2. Comparison of FOB Operational Impacts on Sonoran Pronghorn under the Proposed Action versus the No Action Alternative

Potential Stressors	Proposed Action Alternative	No Action Alternative
Generator noise	Generators would run continuously (24 hours per day, 7 days per week) for up to 5 years, until the construction of the FOB is complete. The solar- powered FOB would have a generator for emergency backup, which would run 2 to 4 hours per month for maintenance	Continuous generator operations (24 hours per day, 7 days per week) for power supply
Fuel delivery trips	1 trip per week (if a 8,600-gallon tanker truck is used).	1 trip per week
Water delivery trips	None upon development of a successful well	1 trip per week
Night lighting	3 acres of artificial lighting in non-Wilderness	1 acre of artificial lighting in non-wilderness

In 2011, the USFWS completed an analysis of whether another nearby FOB had resulted in any impacts on Sonoran pronghorn movement patterns. Camp Grip, which is located approximately 10 miles west of the proposed FOB site was established in 2005. USFWS analyzed available AGFD Sonoran pronghorn location data from radio-collared animals and results of this analysis were inconclusive as to whether Camp Grip had any impact on Sonoran pronghorn movement. These inconclusive results were in part due to the many complex factors involving Sonoran pronghorn movement, including artificial feeding and watering of the animals across the species' range (Cindi Holt, personnel communication).

When CBP planned for solar panels to be considered as a potential power source for the FOB, CBP weighed construction and operational costs versus improved soundscape. In the *SBI_{net}* Ajo-1 BO, a noise threshold of 35 dBA at 492 feet (150 meters) from the towers was established (USFWS 2009). The BO indicates that below this level, noise would have no impact on Sonoran pronghorn. However, Krausman et al. (2004) found that pronghorn inhabit areas with much higher ambient sound levels.

In the short term, the proposed action will substantially reduce sound levels from the current situation where a single, unbaffled generator provides power, as the proposed action will meet the sound thresholds as established in the 2009 BO for Ajo 1. In the long term, installation of solar power will result in further reductions to ambient sound level impacts from the FOB to a duration of several hours a month when generators are exercised.

The water and fuel delivery traffic on Bates Well Road will be reduced by half upon implementation of the proposed action since development of a water well will eliminate the need

for hauling water to the site. In addition, while establishment of the Ajo FOB is not anticipated to change activity patterns of agents within the AOR, it is anticipated to substantially reduce the number of commuting trips between the Ajo Station and the FOB. CBP estimates approximately 10,600 trips will be eliminated annually. USFWS has previously expressed concern about human activity along this road corridor which provides access to the Valley of the Ajo (USFWS 2009).

The area which will be impacted by night lighting will increase under the Proposed Action from one to three acres. However, appropriate measures will be undertaken to ensure lighting is directed within the FOB perimeter. In addition, this lighting is not significant when considered across the 1.6 million-acre range of the pronghorn.

Based on a reduction in ambient noise levels from installation of baffled generators and solar power, a reduction in CBP traffic along Bates Well Road and the limited expansion of night lighting across the range of the pronghorn, CBP has determined that the operational impacts of the Ajo FOB on Sonoran pronghorn are either extremely unlikely to occur or insignificant.

Lesser Long-nosed Bat

Construction of the Ajo FOB will occur from fall 2011 through spring of 2012 when bats are not found in Arizona. In addition, based on site surveys, CBP has determined that the project will result in no loss of bat foraging habitat. As a result, there will be no direct or indirect effect on lesser long-nosed bats arising from construction of the FOB. Direct and indirect impacts on lesser long-nosed bats may occur during operation and maintenance of the Ajo FOB.

Operational impacts on bats are limited to expanding the footprint of the lighted area at the FOB for security purposes from 1 to 3 acres and operational noise. The additional two acres of lighting is surrounded by more than 1.1 million acres of designated wilderness within CPNWR and OPCNM, which is unlit. In addition, security lighting at the FOB will be limited to the greatest extent practicable by minimizing the number of lights used and selectively placing and pointing lights down toward the ground, with shields on lights to prevent light from going up into the sky or out laterally beyond the FOB site footprint. AGFD recently completed a study of lesser long-nosed bat movement patterns in relation to artificial light in Tucson and Marana, Arizona (AGFD 2009). This study found that while the bats preferred lower light levels for transit corridors, they frequently used areas with substantially higher levels of artificial light than would be generated under the Proposed Action.

USFWS has previously determined that noise from the relocated Bates Well Camp would have no impact on the nearest lesser long-nosed bat roost site (USFWS 2009). Under the Proposed Action, the overall operation of diesel generators to support FOB operations would be reduced compared to the current tactical camp's continuous generator operation through installation of baffled generators and eventually solar power. Based on this analysis, the Proposed Action would reduce operational noise and reduce potential current impacts on lesser long-nosed bats.

Based on this analysis, CBP has determined that operational impacts of the Proposed Action would result in discountable or reduced direct impacts on the lesser long-nosed bat.

Measures to Minimize and Avoid Impacts on Listed Species

1. CBP will minimize impacts on Sonoran pronghorn and lesser long-nosed bats and their habitats by using flagging or temporary fencing to clearly demarcate project construction area perimeters. CBP will not disturb soil or vegetation outside of 2-acre expansion site perimeter.
2. CBP will minimize the number of construction and maintenance vehicles traveling to and from the project site and the number of trips per day. Special emphasis will be placed on this approach during the pronghorn fawning season.
3. CBP will minimize potential animal collisions, particularly with Sonoran pronghorn, by not exceeding construction and maintenance speed limits of 25 mph on all unpaved roads.
4. CBP will establish communication channels which will enable the biological monitor the capability to delay or stop work if a Sonoran pronghorn is observed within 1 mile of the FOB construction site.
5. CBP will minimize the duration of construction noise exposure for projects in Sonoran pronghorn habitat.
6. During the construction phase, temporary noise impacts are possible. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires. Implementation of these measures will reduce the potential temporary noise impacts to an insignificant level in and around the construction site.
7. CBP will significantly minimize noise levels for the FOB facility's operations within Sonoran pronghorn and lesser long-nosed bat habitat by using either baffle boxes (a sound-resistant box that is placed over or around a generator, air-conditioning unit, or any other sound-producing equipment) or other noise-abatement methods for all generators, air-conditioning units, or any other sound producing equipment. Specifically, CBP will limit noise emissions so as not to exceed 35 dBA (measured ambient noise) at 492 feet distance from the noise source. CBP will use an acoustical professional to ensure that building and/or sound barrier design details are sufficient to achieve the aforementioned criteria. CBP will provide acoustic findings to USFWS and NPS.
8. CBP will avoid nighttime lighting impacts by conducting construction and maintenance activities during daylight hours only. If night lighting is unavoidable: 1) minimize the number of lights used, 2) place lights on poles pointed down toward the ground, with shields on lights to prevent light from going up into the sky or out laterally into landscape, and 3) selectively place lights so they are directed away from all native vegetative communities.
9. CBP will minimize security and other operations-related lighting impacts at FOB to the greatest extent practicable by minimizing the number of lights used and selectively placing and pointing lights down toward the ground, with shields on lights to prevent light from going up into the sky, or out laterally beyond the FOB footprint.
10. CBP will provide for an on-site biological monitor to be present during work activities for all construction activities. At a time interval (i.e., daily, weekly) determined by the land management agency, the monitor will check in and out of the land management unit (with the land manager or his/her representative). The biological monitor will have the following duties: ensure and document that agreed upon measures to minimize and avoid impacts on listed species and BMPs are properly implemented, send a weekly summary

report via electronic mail to the DOI land managers and USFWS AESO following CBP review, and notify the construction manager (who has the authority to temporarily suspend activities) when construction activities are not in compliance with all agreed upon BMPs.

11. The on-site biological monitor shall be a qualified Sonoran pronghorn monitor as defined by USFWS and NPS. The monitor shall report all detections of Sonoran pronghorn via electronic mail to USFWS AESO and the OPCNM within 48 hours of any detection. The electronic mail will include the following details: a) if known, the coordinates and a description of the locations where the pronghorn was detected, b) the date and time of the detection, c) the method used to make the detection, and d) as available, other pertinent details, such as the behavior of the Sonoran pronghorn (i.e. whether it was standing, foraging or running). The monitor shall also coordinate with CBP personnel monitoring tower number 302 to determine whether antelope have been observed in the vicinity of the FOB and with AGFD and DOI land managers regarding any observations of antelope within the project vicinity.
12. All vehicular traffic associated with construction and maintenance will use designated/authorized roads to access the sites, avoiding off-road vehicle activity outside of the project footprint.
13. All construction or maintenance personnel will report detections of Sonoran pronghorn to the biological monitor.
14. CBP will develop and implement a training program focusing on Trust Resources for contractors/construction personnel. Training will be provided to all personnel associated with the project before project construction begins and before any new personnel begin work on the project. Information presented in the training program will include occurrence of sensitive species in the project area, their general ecology, and sensitivity to human activities; legal protection afforded the species and the penalties for violation of state or Federal laws; implementation of included conservation actions/BMPs; and reporting requirements. Also included in this training program will be color photos of the listed species and maps of federally listed species' habitats.
15. Vehicle operators will be trained to recognize pronghorn. If pronghorn are sighted within one mile of the project site or the Bates Well access road to the site by the biological monitor or vehicle operators, the vehicle involved would initially stop to allow pronghorn to move away and to reduce disturbance to the extent possible. Once the pronghorn has moved away from line of sight or greater than 1 mile from the vehicle or project site, vehicles would proceed at 15 mph for the first mile and then resume normal speed (25 mph).
16. Fill material (gravel and topsoil) brought in from outside the project area will be identified by its source location. Sources will be used that are clean and weed-free.
17. Certified weed/seed free natural materials (e.g., straw) will be used for on-site erosion control to avoid the spread of non-native plants.
18. Removal of invasive plants that appear on the site will be done in ways that eliminate the entire plant and remove all plant parts to a disposal area. Herbicides not toxic to listed species that may be in the area can be used for non-native vegetation control. Application of herbicides will follow Federal guidelines and be in accordance with label directions. An NPS Pesticide Use Permit would be received prior to herbicide application on NPS lands.

19. CBP will include a configuration to support fire management operations in the design of facilities that require land clearing.
20. CBP will undertake all reasonable efforts to complete construction of the FOB before the beginning of pronghorn fawning season on March 15. If the construction is not complete, CBP agrees there will be no earth moving or heavy construction equipment used after March 15.
21. CBP will avoid effects on bats in bat roosts by not implementing construction-related activities within 4 miles of the roost between May 1 and September 30.
22. NPS and USFWS will be notified two weeks before any project construction activities begin and within one week after project construction activities are completed.
23. CBP will provide a report to USFWS AESO and DOI land management agencies within 90 days of project construction completion which includes a complete description of the action (construction component) implemented (including photographs; total acres impacted; total acres of Sonoran pronghorn habitat impacted; total number of lesser long-nosed bat food plants impacted; length of time to complete the project; all environmental design [i.e., BMPs] and conservation measures implemented, including all Sonoran pronghorn daily and other biological monitoring reports, etc.). As implementation of some measures will continue after project construction is completed, the report will also identify environmental design and conservation measures still under implementation or proposed for implementation and a time frame for completing the measures.
24. Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work shall cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material.
25. A Construction Stormwater General Permit will be obtained prior to construction, and this would require approval of a site-specific SWPPP and Notice of Intent. A site-specific SPCCP will also be in place prior to the start of construction. Other environmental design measures will be implemented, such as silt fencing, aggregate materials, and wetting compounds to decrease erosion and sedimentation.
26. CBP will not, for any length of time, permit any pets inside the project area or adjacent native habitats. This BMP does not pertain to law enforcement animals.
27. CBP will minimize site disturbance and avoid attracting predators by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours will be properly stored until disposal.
28. All BMPs to be implemented by the project contractor will be included in the contract.
29. The FOB will be removed within 12 months of cessation of use if CBP determines it is no longer needed, and site will be restored to natural habitat conditions.
30. The spread of non-native plants will be reduced by providing weed-free feed to horses that are corralled at the FOB.
31. Animal waste will be removed from the corral and deposited at an appropriate waste facility to avoid water contamination.
32. Any collisions with Sonoran pronghorn will be reported to USFWS AESO and OPCNM via telephone and electronic mail as soon as practicable, but no later than 12 hours after the collision. Information to be relayed will include: a) location of the collision, b) date and time of the collision, c) type of vehicle, and d) a description of the collision to include the outcome and a photograph of the Sonoran pronghorn (if available).

Conservation Measures

1. If there is surplus water from the well, CBP will permit NPS and USFWS to use surplus water to replenish Sonoran pronghorn waters.
2. CBP will explore opportunities to assign agents to the FOB on a longer term basis and provide USBP agents with more extensive environmental training.
3. CBP will assign a supervisor for the FOB who will have oversight of FOB operations, One of the duties of this individual will be working with the NOS and USFWS to ensure impacts of ISBP operations on OPCNM and CPNWR are minimized.
4. Provide environmental education for agents via kiosk/information display at Ajo FOB and Ajo Station.

3.8.4.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have the same impacts on protected species as discussed for the solar-powered FOB in the Proposed Action during construction; however, any impacts on Sonoran pronghorn and lesser long-nosed bats from noise would be greater in duration. The proposed FOB would be powered by two 200-kilowatt diesel-fueled generators, running continuously. Long-term noise emissions from the FOB generator would be attenuated to 35 dBA within 492 feet of the FOB. Noise emissions from the operation of the generators at the FOB would be localized and would have long-term, minor impacts on Sonoran pronghorn and lesser long-nosed bats.

3.8.4.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would be run on solar or other alternative fuel power with diesel generator backups. Impacts on the Sonoran pronghorn and lesser long-nosed bat from noise and visual impediments would be the same as those described for the Proposed Action.

3.8.4.4 No Action Alternative

Under the No Action Alternative, there would be no additional impacts on threatened or endangered species or their habitats, as no construction activities would occur. Impacts from the establishment of the tactical camp at the current site were identified and assessed in the Biological Opinion prepared for the SBInet Ajo 1 Project (USFWS 2009).

3.9 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

3.9.1 Affected Environment

The process of identifying and evaluating potential impacts on cultural resources was described in detail in several documents. Those discussions are incorporated herein by reference (CBP 2007 and INS and JTF-6 2001). Briefly, the National Historic Preservation Act (NHPA) of 1966 established the Advisory Council on Historic Preservation (ACHP) to advocate full consideration of historic values in Federal decision making and ensure consistency in national policies. Additionally, the NHPA also established the SHPO to administer national historic preservation programs on a state level and Tribal Historic Preservation Officers on tribal lands, where appropriate. The NHPA also established the NRHP, which is the Nation's official list of cultural resources worthy of preservation and protection. The historic preservation review process mandated by Section 106 of the NHPA is outlined in the ACHP regulations, "Protection of

Historic Properties” (36 CFR Part 800), which were revised and became effective on January 11, 2001.

The cultural chronology of the Western Papaguería is usually discussed in periods: Preceramic Period, which is divided into two temporal phases, Paleo-Indian (circa 10,000 B.C. to 7,500 B.C.) and Archaic (circa 7,500 B.C. to A.D. 200); Ceramic Period, which is generally divided into Patayan (A.D. 700 to 1500), Hohokam (A.D. 200 to 1500), and Trincheras (A.D. 700 to 1900); Early Historic Period (A.D. 1540 to 1848); Late Historic Period (A.D. 1848 to 1945); and World War II and Cold War Period (A.D. 1945 to 1989). The main time periods are typically subdivided into smaller temporal phases, based on particular characteristics of the artifact assemblages. For example, the prehistoric periods and corresponding phases are defined by particular diagnostic artifacts such as projectile points and certain types of pottery. Occasionally the phases or periods can be defined by distinctive site locations. Phases of the Historic period are often distinguished by ethnohistoric accounts and other written records, though specific artifacts are also temporally or culturally diagnostic. The western Papaguería region is bounded by the Colorado River to the west, the Gila River to the north, and the Rio Sonoita, Sonora, Mexico and the Gulf of California to the south (Ahlstrom 2000). The eastern Papaguería and the Tohono O’odham Nation bound the region to the east.

3.9.1.1 Previous Archaeological Investigations

The archaeological site records on the Arizona State Museum’s (ASM) AZSITE Cultural Resource Inventory were examined prior to the initiation of the field survey of the proposed FOB expansion site. In addition, both maps and patent records from the General Land Office were examined in order to identify potential historic resources located within the vicinity of the FOB site. Six archaeological surveys, which identified seven archaeological sites, were previously conducted within 1 mile of the FOB site. These surveys were conducted in support of construction, utility installation, road maintenance and improvements, park improvements, research, and other initiatives. Seven previously recorded sites are located within the 1-mile search radius around the proposed FOB site. Six of these sites were recorded by Rankin from 1989 to 1991. All six sites consist of possible roasting features, each containing from one to four concentrations of fire-cracked rock (Rankin 1995). The cultural and temporal affiliation of these sites is unknown due to a lack of artifacts. Only one site contained an artifact, AZ Y:16:34(ASM), a basalt metate fragment. The historic Bates Well Road and was recorded by Northland Research, Inc. (Hopkins 2006). Two of these seven sites (AZ Y:16:32[ASM] and Bates Well Road) are located within the current survey area.

3.9.1.2 Current Investigations

Archaeological surveys were conducted at the FOB expansion site in March 2011. Approximately 24 acres were surveyed as part of this effort. Two previously recorded sites were relocated during the current investigation (Table 3-3) and 14 isolated occurrences (IO) were discovered (Hart 2011). The following section describes the cultural resources recorded within the project area.

Table 3-3. Archaeological Sites within 1 mile of the Proposed FOB Expansion Area

Site No.	Site Type	Age	Eligibility Recommendation
AZ Y:16:32(ASM)	Thermal features	Indeterminate	Eligible
	Bates Well Road	Historic	Undetermined

AZ Y:16:32(ASM) consists of three clusters of fire-cracked rock and one recent charcoal pile. The site is on the south side of Bates Well Road just east of the CPNWR/OPCNM boundary on the OPCNM side. The site was originally documented by A. Rankin in 1990 for the NPS (Rankin 1995). The site contains three thermal features and one recent charcoal-filled fire ring. Thermal Feature 1 consists of 150 to 200 cobbles of partially buried fire-cracked rock. Thermal Feature 2 is a small cluster of about 25 pieces of fire-cracked rock and may represent a clean-out event. Thermal Feature 3 consists of about 100 pieces of partially buried fire-cracked rock. No artifacts were observed on the ground surface, and cultural/temporal affiliation remains unknown.

Rankin (1995) and Gibson (2010) recommended the site as eligible for listing on the National Register of Historic Places (NRHP) under Criterion D. Both archaeologists state that these features appear to predate a nearby modern fire ring and have the potential to contain datable radiocarbon deposits.

The historic Bates Well Road was originally documented in 2006 by Northland Research (Hopkins 2006). The east end begins at the OPCNM/BLM boundary in Section 20 of Township 14 South, Range 6 West. Its western terminus was previously documented as ending at the OPCNM/CPNWR boundary. During the current investigation, the west end of the road was extended about 1,500 feet to include the surveyed road corridor.

The NRHP-listed site of Bates Well (AZ Z:13:39[ASM]) is located along Bates Well Road. The site was an important water source for the nearby Growler Camp and Growler Copper Mine (AZ Z:13:48[ASM]), and was also a crucial crossroads for north-south travel between Ajo and Sonoita, Mexico, as well as east-west travel between Tucson and Yuma. The road also provides access to the NRHP-listed site/district of El Camino del Diablo (SN C:1:15[ASM]). Although Bates Well Road is not within the recorded district boundaries of El Camino, portions of the road, particularly its west end, may actually be segments of El Camino del Diablo.

Northland Research originally recommended the road's eligibility to be undetermined (Hopkins 2006; Carpenter and Hopkins 2009). The viewshed integrity from the road is intact with little modern disturbance, and thus contributes to the overall integrity of the travel corridor. Given the road's association with two NRHP-listed sites, Bates Well Road may be a significant historic property. Archival research is needed to fully assess the historical significance of this road and determine if it should be included within El Camino del Diablo historic district, or if its research potential should be considered exhausted following thorough archival research.

During the field survey, 14 IOs of cultural materials were discovered. The IOs consist of cans, scattered fire-cracked rocks, ground stone, and a trail segment. Many of the cans are scattered

near Bates Well Road and are likely associated with it. One trail segment was documented on desert pavement just outside the survey corridor. No artifacts were noted along the trail, but it appears to lead towards AZ Y:16:32(ASM). One notable IO is a wooden sign that serves as a memorial to a man named Patrick Reidelbach who died on November 13, 1992. It is unclear who Reidelbach was. He is not listed as one of the CBP Agents who were killed in the line of duty. Items recorded as IOs do not meet the ASM definition of an archaeological site, and none are considered eligible for inclusion on the NRHP (Hart 2011).

3.9.2 Environmental Consequences

3.9.2.1 *Proposed Action*

Impacts on the two previously recorded archaeological sites (AZ Y:16:32[ASM] and Bates Well Road) from the planned FOB expansion would be avoided through project design. No additional archaeological work is recommended for these sites. BMPs to be employed to avoid impacts on these cultural resources are listed below.

- The site boundaries of all previously recorded sites, along with a 100-foot buffer, would be flagged around each of the sites to ensure that they are avoided.
- An archaeologist will be on-site during any subsurface disturbing activities.
- Should any archaeological artifacts be found during construction, the OPCNM archaeologist will be notified immediately. All work will cease until an evaluation of the discovery is made by the OPCNM archaeologist to determine appropriate actions to prevent the loss of significant cultural or scientific values.

3.9.2.2 *Fossil Fuel Generator Alternative*

The Fossil Fuel Generator Alternative would have the same impacts on cultural resources as discussed for the solar- or other alternative fuel-powered FOB in the Proposed Action.

3.9.2.3 *CPNWR Location Alternative*

The FOB expansion on CPNWR lands would cause the same impacts on cultural resources as discussed for the Proposed Action.

3.9.2.4 *No Action Alternative*

The No Action Alternative would have no impact, either beneficial or adverse, on cultural resources because the existing Ajo Station FOB would not be expanded.

3.10 AIR QUALITY

3.10.1 Affected Environment

The EPA established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the general public. Ambient air quality standards are classified as either "primary" or "secondary." The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone, particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead. NAAQS represent the maximum levels of background pollution that are considered safe, within an adequate margin of safety, to protect the public health and welfare.

Areas that do not meet these NAAQS standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by the EPA, following the passage of Amendments to the Clean Air Act in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

A conformity analysis is the process used to determine whether a Federal action meets the requirements of the General Conformity Rule. It requires the responsible Federal agency to evaluate the nature of a Proposed Action and associated air pollutant emissions, and calculate emissions as a result of the Proposed Action. If the emissions exceed established limits, known as *de minimis* thresholds, the proponent is required to implement appropriate mitigation measures.

EPA considers Pima County as a moderate non-attainment area for PM-10 (EPA 2010b). The *de minimis* threshold for moderate non-attainment for PM-10 is 100 tons per year (40 CFR 51.853).

3.10.1.1 Greenhouse Gases and Climate Change

Global climate change refers to a change in the average weather on the earth. Greenhouse gases (GHG) are gases that trap heat in the atmosphere. They include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), fluorinated gases including chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HFC), and halons, as well as ground-level ozone (California Energy Commission 2007).

The major GHG-producing sectors in society include transportation, utilities (e.g., coal and gas power plants), industry/manufacturing, agriculture, and residential. End-use sector sources of GHG emissions include transportation (40.7 percent), electricity generation (22.2 percent), industry (20.5 percent), agriculture and forestry (8.3 percent), and other (8.3 percent) (California Energy Commission 2007). The main sources of increased concentrations of GHG due to human activity include the combustion of fossil fuels and deforestation (CO₂), livestock and rice farming, land use and wetland depletions, landfill emissions (CH₄), refrigeration system and fire suppression system use and manufacturing (CFC), and agricultural activities, including the use of fertilizers (California Energy Commission 2007).

Final Mandatory GHG Inventory Rule

In response to the Consolidation Appropriations Act (House Resolution [H.R.] 2764; P.L. 110–161), EPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires large sources that emit 25,000 metric tons (27,557 U.S. tons) or more per year of GHG to report GHG emissions in the U.S., collect accurate and timely emissions data to inform future policy decisions, and submit annual GHG reports to the EPA. The final rule was signed by the Administrator on September 22, 2009, published on October 30, 2009, and made effective December 29, 2009.

GHG Threshold of Significance

The CEQ provided draft guidelines for performing meaningful GHG decision-making analysis. The CEQ GHG guidance is currently undergoing public comment at this time; however, the draft guidance states that if the action would be reasonably anticipated to cause direct emissions of 25,000 metric tons (27,557 U.S. tons) or more of CO₂ GHG emissions on an annual basis, agencies should consider this an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public. For long-term actions that have annual direct emissions of less than 25,000 metric tons (27,557 U.S. tons) of CO₂, CEQ encourages Federal agencies to consider whether the action's long-term emissions should receive similar analysis. CEQ does not propose this as an indicator of a threshold of significant impacts, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHGs (CEQ 2010).

The GHGs covered by Executive Order (EO) 13514 are CO₂, CH₄, N₂O, HFC, perfluorocarbons, and sulfur hexafluoride. These GHGs have varying heat-trapping abilities and atmospheric lifetimes. CO₂ equivalency (CO₂e) is a measuring methodology used to compare the heat-trapping impact from various greenhouse gases relative to CO₂. Some gases have a greater global warming potential than others. Nitrous oxides (NO_x), for instance, have a global warming potential that is 310 times greater than an equivalent amount of CO₂, and CH₄ is 21 times greater than an equivalent amount of CO₂.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the FOB. The following paragraphs describe the air calculation methodologies utilized to estimate air emissions produced by the construction of the FOB expansion. Fugitive dust emissions were calculated using the emission factor of 0.19 ton per acre per month (Midwest Research Institute 1996), which is a more current standard than the 1985 PM-10 emission factor of 1.2 tons per acre-month presented in AP-42 Section 13 Miscellaneous Sources 13.2.3.3 (EPA 2001).

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

Construction workers would temporarily increase the combustible emissions in the airshed during their commute to and from the project area. Emissions from delivery trucks would also contribute to the overall air emission budget. Emissions from delivery trucks and construction workers traveling to the job site were calculated using the EPA MOBILE6.2 Model (EPA 2005a, 2005b and 2005c).

The total air quality emissions were calculated for the construction activities to compare to the General Conformity Rule. Summaries of the total emissions for the Preferred Alternative are presented in Table 3-4. Details of the analyses are presented in Appendix D.

Table 3-4. Total Air Emissions (tons/year) from the Proposed Action Construction versus the *de minimis* Threshold Levels

Pollutant	Total (tons/year)	<i>de minimis</i> Thresholds (tons/year) ¹
CO	24.92	100
Volatile Organic Compounds (VOC)	4.87	100
Nitrous Oxides (NOx)	39.21	100
PM-10	4.93	100
PM-2.5	3.31	100
SO ₂	4.91	100
CO ₂ and CO ₂ equivalents	16,158	27,557

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) model projections.

⁽¹⁾ Note that Pima County is in non-attainment for PM-10 (USEPA 2010b).

Several sources of air pollutants would contribute to the overall air impacts of the construction project. The air results in Table 3-4 included emissions from the following sources.

- Combustible engines of construction equipment
- Construction workers' commute to and from work
- Supply trucks delivering materials to construction site
- Fugitive dust from job-site ground disturbances

Operational Air Emissions

Operational air emissions refer to air emissions that may occur after the FOB has been installed, such as maintenance of two backup diesel generators operating 2 to 4 hours per month per year (worst case scenario). The air emissions from diesel generators and bimonthly maintenance are presented in Appendix D and are summarized in Table 3-5.

Table 3-5. Total Air Emissions (tons/year) from Diesel Generators vs. *de minimis* Levels for the Proposed Action

Pollutant	Total (tons/year)	<i>de minimis</i> Thresholds (tons/year) ¹
CO	0.11	100
Volatile Organic Compounds (VOC)	0.04	100
Nitrous Oxides (NOx)	0.18	100
PM-10	0.02	100
PM-2.5	0.02	100
SO ₂	0.02	100
CO ₂ and CO ₂ equivalents	74.86	27,557

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) model projections (Appendix D).

⁽¹⁾ Note that Pima County is in non-attainment for PM-10 (EPA 2010b).

As can be seen from the table above, the proposed construction and operational activities do not exceed Federal *de minimis* thresholds and, thus, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, the impacts on air quality from the implementation of the Proposed Action would be less than significant. BMPs to be incorporated to ensure that fugitive dust and other air quality constituent emission levels do not rise above the minimum threshold as required per 40 CFR 51.853(b)(1) are listed below.

- Dust suppression methods, such as road watering to minimize airborne particulate matter created during construction activities will be utilized. Standard construction BMPs such as routine watering of the construction site, as well as access roads to the site, will be used to control fugitive dust and thereby assist in limiting potential PM-10 excursions during the construction phase of the proposed project.
- All construction equipment and vehicles will be required to be maintained in good operating condition to minimize exhaust emissions.

3.10.2.2 Fossil Fuel Generator Alternative

Air quality impacts associated with construction activities would be similar to those described in the Proposed Action; however, the ongoing emissions would be greater due to the elimination of solar power and the use of diesel generators as the primary source of power at the FOB.

Operational air emissions associated with this alternative include operation of two diesel generators operating 24 hours per day and 365 days per year. The air emissions from diesel generators are presented in Appendix D and are summarized in Table 3-6.

Table 3-6. Total Air Emissions (tons/year) from Diesel Generators vs. *de minimis* Levels for the Fossil Fuel Generator Alternative

Pollutant	Total (tons/year)	<i>de minimis</i> Thresholds (tons/year) ¹
CO	20.76	100
Volatile Organic Compounds (VOC)	6.68	100
Nitrous Oxides (NOx)	32.97	100
PM-10	4.03	100
PM-2.5	3.92	100
SO ₂	4.47	100
CO ₂ and CO ₂ equivalents	13,662	27,557

Source: 40 CFR 51.853 and Gulf South Research Corporation (GSRC) model projections (Appendix D).

⁽¹⁾ Note that Pima County is in non-attainment for PM-10 (EPA 2010b).

As can be seen from the table above, the air emissions associated with the Fossil Fuel Generator Alternative's construction and operational activities do not exceed Federal *de minimis* thresholds and, thus, would not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, the impacts on air quality from the implementation of the Fossil Fuel Generator Alternative would be less than significant. During construction, proper and routine maintenance (i.e., appropriate oil change schedules, lubrication levels, and fuel for efficient performance) of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all

construction equipment. Dust suppression methods should be implemented to minimize fugitive dust. In particular, water would be applied to the construction area to minimize the emissions of fugitive dust.

3.10.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would have the same impacts on air quality as discussed for the Proposed Action.

3.10.2.4 No Action Alternative

The No Action Alternative would not result in any additional direct impacts on air quality because there would be no construction activities. Air quality and air emissions for operation of the existing tactical camp were discussed in the *SBI^{net}* Ajo-1 Project EA (CBP 2009). Air emissions from the continuous use of one generator would be approximately half of the expected emissions presented in Table 3-6 for the Fossil Fuel Generator Alternative.

3.11 NOISE

Noise is often described as unwanted sound. Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the dB scale is referred to as sound level. The dBA scale takes sound pressure into account and emphasizes the frequencies, and is a measure of noise at a given, maximum level or constant state level. The threshold of perception of the human ear is approximately 3 dBA, which is considered barely perceptible, and a 5 dBA change is considered to be clearly noticeable. A 10 dBA increase in the measured sound level is typically perceived as being twice as loud as the original sound level.

3.11.1 Affected Environment

The FOB is located in a rural area which includes designated wilderness areas. OPCNM and CPNWR lands are undeveloped lands used primarily for the protection of the Sonoran Desert Ecosystem, recreational, and educational purposes. Anthropogenic noises can degrade the natural soundscape and adversely impact humans and wildlife. Natural soundscapes are composed completely of natural sounds without the presence of human-made sounds. The project area is located on lands where noise would potentially adversely impact natural soundscapes.

Wilderness Areas

Two important noise emission thresholds are considered in this noise analysis of designated wilderness. First, noise emission criteria for construction activities have been published by the Federal Highway Administration, which has established a construction noise abatement criterion of 57 dBA for lands, such as national parks, in which serenity and quiet are of extraordinary significance (23 CFR 722, Table 1). The 57 dBA threshold is used to assess the impacts from temporary noise emissions associated with constructing the proposed FOB expansion.

Secondly, CBP is committed to minimizing long-term noise impacts on the natural environment. The natural ambient background noise levels on OPCNM were measured, and averaged 20 dBA over a 20-day period (NPS 2009b). CBP used the 35 dBA threshold to measure impacts from

long-term operational noise emissions from long-term point sources of noise, such as power generators.

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action

The following analysis segregates noise emissions into two categories: temporary noise emissions, which include emissions from construction equipment used to construct the proposed FOB expansion, and long-term noise emissions, which refer to ongoing noise emissions that would occur after the FOB expansion has been completed and is operational. The noise analysis modeled noise contours for a variety of sources and summarized the area of impact in acres for temporary and long-term noise emissions.

Temporary FOB Construction Noise

It was assumed that expansion of the FOB would require the use of general construction equipment, which produces noise emissions up to 81 dBA (crane), to install building modules. Assuming the worst case scenario of 81 dBA from general construction equipment, the noise model predicts that noise emissions would be attenuated to levels equal to or below 57 dBA at 738 feet from the noise source (23 CFR 722, Table 1). The 57 dBA construction noise contour would encompass 39 acres located near or within designated wilderness areas. Wilderness areas would be directly exposed to temporary noise emissions in excess of 57 dBA during construction. Noise emissions would have a temporary, minor adverse impact on the soundscape.

Long-term Noise Emission from FOB

Long-term noise emissions refer to noise emissions that would occur during and after the FOB has been expanded. Initially, two diesel generators would serve as the electrical power supply at the FOB; however, only one would be operating while the other is idle. By the 5th year of construction, CBP would install solar panels and storage batteries to supply electrical power needs at the FOB. The diesel generator would be expected to operate 24 hours a day and 7 days per week. Noise emissions from the diesel generator (225 Kilowatt) would be mitigated by a building an enclosure that would reduce the noise emissions.

The enclosure would be designed to reduce noise levels equal to or below 35 dBA at 492 feet from the noise source. Within a radius of 492 feet from the enclosed generator set, approximately 17 acres of land adjacent to FOB would be exposed to noise emissions greater than 35 dBA for 24 hours a day. Noise emissions associated with FOB operations would have a short-term (5-years), minor adverse impact on the soundscape. Potential impacts would be localized to the 17 acres adjacent to the FOB site. Noise emissions from the operation of a diesel generator would have a short-term, minor adverse impact on the soundscape. However, the eventual use of solar energy as the primary power source for the FOB would substantially reduce the duration of noise emissions compared to the No Action alternative to only a few hours per week.

The following BMPs would be implemented to minimize the impact of noise emissions from the Proposed Action.

- During the construction phase, temporary noise impacts are anticipated. All applicable Occupational Safety and Health Administration regulations and requirements will be followed. On-site activities would be restricted to daylight hours to the greatest extent practicable, although nighttime construction could occur if the construction schedule requires it. Construction equipment will possess properly working mufflers and would be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected temporary noise impacts to an insignificant level in and around the construction site.
- Noise mitigation enclosure for diesel generators.

3.11.2.2 Alternative 2 Fossil Fuel Generator Alternatives

It is assumed that the two generators would be located next to each other and essentially be one noise source when operating. Similar baffle boxes or other noise control techniques would be employed to limit noise emissions to meet the impact threshold of less than 35 dBA. It is estimated that noise emissions from the generators would travel 492 feet before they attenuated to 35 dBA. Within a radius of 492 feet from the enclosed generator set, approximately 17 acres of land at FOB would be exposed to noise emissions greater than 35 dBA, continuously. Noise impacts associated with this alternative would have a minor impact on the natural environment.

3.11.2.3 Alternative 3 CPNWR Location

Noise associated with construction would be similar to that described in the Proposed Action; however, noise emissions would be located on CPNWR lands. Noise emissions would have temporary and long-term, minor impacts on the soundscape.

3.11.2.4 No Action Alternative

Under the No Action Alternative, the soundscape near the existing tactical camp would continue to experience the existing tactical camp operational noise. The generator is unbaffled and impacts approximately 63.86 acres (Magnum 2010). The No Action Alternative would have long-term minor adverse impacts on the soundscape.

3.12 ROADWAYS AND TRAFFIC

3.12.1 Affected Environment

The proposed FOB expansion sites are located on OPCNM and CPNWR lands in western Pima County along Bates Well Road (El Camino del Diablo in CPNWR). The project area is extremely remote, and the only highway within the project area is State Route 85, which extends from Interstate 10 near Buckeye south to the Port of Entry at Lukeville. The average annual daily traffic count for State Route 85 from Puerto Blanco Road to the Lukeville Port of Entry is 1,400 vehicles (Arizona Department of Transportation 2009).

3.12.2 Environmental Consequences

3.12.2.1 *Proposed Action*

With the implementation of the Proposed Action, construction activities at the FOB would create a temporary, negligible impact on roadways and traffic within the project region. An increase of vehicular traffic would occur to supply materials and work crews to the FOB site for the limited construction period.

Only existing roads which are authorized for public use would be utilized to access the FOB. These roads include State Route 85, Darby Wells Road, and Bates Well Road.

Once construction work is completed, maintenance visits to the FOB would be required up to twice a month depending on the availability of well water and generator usage. Maintenance visits would have a long-term, negligible impact on traffic.

Operation of the FOB is anticipated to decrease vehicular traffic along Bates Well Road and the 59.4 Road which is a cut-through road, used by USBP Agents by approximately 10,600 trips per year.

3.12.2.2 *Fossil Fuel Generator Alternative*

The Fossil Fuel Generator Alternative would have impacts on roadways and traffic similar to those discussed for the solar-powered FOB in the Proposed Action during construction; however, maintenance trips would have a greater impact on roadways and traffic. The proposed FOB would be powered by two 200-kilowatt diesel-fueled generators, running continuously. Maintenance trips and delivery of fuel to the FOB would have a negligible impact on current use levels of roadways along the access route.

3.12.2.3 *CPNWR Location Alternative*

The FOB expansion on CPNWR lands would be run on solar or other alternative fuel power with diesel generator backups. Impacts on roadways and traffic would be the same as those described for the Proposed Action.

3.12.2.4 *No Action Alternative*

Under the No Action Alternative, no additional direct impacts on roadways and traffic would occur. USBP Agents, park visitors, OPCNM or CPNWR employees would continue to travel the roadways at current levels.

3.13 HAZARDOUS MATERIALS

3.13.1 Affected Environment

Solid and hazardous wastes are regulated in Arizona by a combination of laws promulgated by the Federal, state, and regional Councils of Government. The proposed FOB expansion site was searched on EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List (NPL) or being considered for the NPL. The search found no active NPL sites within a 1-mile radius of the proposed FOB expansion site. Additionally, during the March 2011

biological survey, no evidence of hazardous waste or materials (e.g., drums, soil staining) was observed at the FOB expansion site.

3.13.2 Environmental Consequences

3.13.2.1 Proposed Action

Construction Activities

The Proposed Action would have temporary, minor impacts on the environment as a result of hazardous materials. During construction, a potential exists for petroleum, oil and lubricant (POL) contamination at the construction site due to storage of POL material for maintenance and refueling vehicles and fuel storage tanks. Cleanup materials (e.g., oil mops) would be maintained at the site for appropriate spill response and cleanup in case an accidental spill occurs. Drip pans would be provided for the generators and other stationary equipment to collect any POL that is accidentally spilled during maintenance activities or leaks from equipment. To ensure oil pollution prevention, a Spill Prevention Control and Countermeasures Plan (SPCCP) would be in place prior to the start of construction activities.

Portable sanitary facilities would be provided during construction activities, and waste products would be collected and disposed of by licensed contractors. Disposal contractors would only use established roads to transport equipment and supplies, and all waste would be disposed of in compliance with Federal, state, and local regulations, and in accordance with contractors' permits.

Maintenance and Operations Activities

All solid and hazardous wastes and materials, including universal waste (such as batteries, motor oil, fluorescent light bulbs, etc.), would be handled in accordance with applicable Federal and state laws and guidelines governing these items.

The following BMPs will be implemented as standard operating procedures during all construction activities, and will include proper handling, storage, and disposal of hazardous and regulated materials.

- To avoid potential impacts from hazardous and regulated materials, all fuels, waste oils and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein.
- The refueling of machinery will be completed in accordance with accepted industry and regulatory guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips.
- Although it is unlikely that a major spill would occur, any spill of reportable quantities will be contained immediately within an earthen dike, and the application of an absorbent (e.g., granular, pillow, sock) will be used to absorb and contain the spill.
- All spills will be reported to the designated CBP point of contact for the project. Furthermore, a spill of any petroleum liquids (e.g., fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable quantity must be cleaned up and reported to the appropriate Federal and state agencies.

- CBP will contain non-hazardous waste materials and other discarded materials, such as construction waste, until they can be removed from the construction and maintenance sites. This will assist in keeping the project area and surroundings free of litter and reduce the amount of disturbed area needed for waste storage. CBP will minimize site disturbance and avoid attracting wildlife by promptly removing waste materials, wrappers, and debris from the site. Any waste that must remain more than 12 hours should be properly stored until disposal. Solid waste receptacles will be maintained at construction staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor
- All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all applicable Federal, state, and local regulations, including proper waste-manifesting procedures.
- CBP will avoid contamination of ground and surface waters by storing concrete wash water, and any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on-site until removed for disposal. This wash water is toxic to wildlife. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.
- Disposal of used batteries or other small quantities of hazardous waste will be handled, managed, maintained, stored, and disposed of in accordance with applicable Federal and state rules and regulations for the management, storage, and disposal of hazardous materials, hazardous waste and universal waste. Additionally, to the extent practicable, all batteries will be recycled locally. CBP will avoid soil contamination by using drip pans underneath equipment and containment zones when refueling vehicles or equipment.

3.13.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have impacts on the environment as a result of hazardous materials similar to those discussed for the solar-powered FOB in the Proposed Action during construction.

3.13.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would have impacts on the environment as a result of hazardous materials similar to those discussed for the Proposed Action.

3.13.2.4 No Action Alternative

The No Action Alternative would not contribute any hazardous waste or materials to the project area, as no construction would take place.

3.14 SOCIOECONOMICS

3.14.1 Population and Demographics

The Region of Influence (ROI) for the proposed project consists of Pima County, Arizona. This discussion supplements and updates the socioeconomic analysis conducted for the December 2009 SBI*net* Ajo-1 EA (CBP 2009).

The population and racial mixes of the ROI and Arizona are presented in Table 3-7 (U.S. Census Bureau 2008a). The Pima County population was 994,244 in the 3-year census ending in 2008 (U.S. Census Bureau 2008b). Approximately 33 percent of Pima County and 30 percent of the State of Arizona reported having populations of (or populations with) Hispanic origin in the 3-year census ending in 2008, while 3.3 percent of Pima County and 3.5 percent of Arizona reported being African American.

Table 3-7. Population and Race Estimates within the Region of Influence for the 3-Year Census Ending in 2008

	Arizona	Pima County
White	4,928,196 (77.7%)	728,159 (73.2%)
African American	223,500 (3.5%)	32,440 (3.3%)
Native American	285,183 (4.5%)	32,688 (3.3%)
Asian	149,960 (2.4%)	24,029 (2.4%)
Native Hawaiian	10,172 (0.2%)	1,408 (0.1%)
Some Other Race	588,440 (9.3%)	143,489 (14.4%)
Two or More Races	158,501 (2.5%)	31,851 (3.2%)
Hispanic Origin	1,877,267 (29.6%)	325,139 (32.7%)
Total Population	6,343,952	994,244

Sources: U.S. Census Bureau 2008a and 2008b.

3.14.1.1 Employment and Income

Table 3-8 summarizes the total number of jobs in the ROI and Arizona. The number of jobs in Pima County increased 25.4 percent between 1998 and 2008 (a gain of 105,326 jobs). However, in an 18-month period (from 2008 to April 2009), the number of jobs in Pima County decreased 6.5 percent, which is less than the percentage of jobs lost in the state during the same time period (8.6 percent). The decrease in jobs in the last year, from April 2009 until April 2010, was 0.02 percent in Pima County, and was less than the 0.78 percent decrease in the state. The government sector provided the most jobs in Pima County in April 2010 (79,900 jobs), followed by educational and health services and trade, transportation and utilities sectors (Arizona Department of Commerce Research Administration 2010a and b).

Table 3-8. Total Number of Jobs within the Region of Influence

Location	1998	2008	April 2009	April 2010	Percent Change from April 2009 to April 2010
Arizona	2,610,870	3,437,191	2,909,000*	2,886,200*	-0.78%
Pima County	415,118	520,444	454,400*	454,300*	-0.02%

Sources: U.S. Bureau of Economic Analysis 1998a, 1998b, 2008a and 2008b, Arizona Department of Commerce Research Administration 2010a and 2010b.

*Data were rounded to the nearest 100.

The unemployment rate doubled in Arizona between 1999 and 2009 (Table 3-9), but has remained the same since 2009. In Pima County, between 1999 and 2009, the unemployment rate more than doubled. Since 2009, the unemployment rate in Pima County has decreased slightly (by 0.1 percent), while the unemployment rate for the state has remained the same (9.1 percent).

Table 3-9. Unemployment Rate within the ROI

Location	1999 (percent)	2009 (percent)	April 2010 (percent)
Arizona	4.5	9.1	9.1
Pima County	3.2	8.3	8.2

Sources: Real Estate Center 2010a and 2010b.

The 2008 per capita personal income (PCPI) for Pima County was \$34,058 and ranked 4th in the state (Table 3-10; U.S. Bureau of Economic Analysis 2008c). This PCPI was 99 percent of the state average (\$34,339) and 85 percent of the National average (\$40,166). The 1998 to 2008 average annual growth rate in the ROI was 4.2, greater than both the average annual growth rate for the state (3.8 percent) and the Nation (4.0 percent) (U.S. Bureau of Economic Analysis 2008c).

Table 3-10. Median Household Income for the U.S., Arizona, and Pima County

Location	2008 Per Capita Personal Income (PCPI)	PCPI 1998-2008 Average Annual Growth Rate (percent)	2008 Median Household Income
U.S.	\$40,166	4.0	\$52,029
Arizona	\$34,339	3.8	\$51,009
Pima County	\$34,058	4.2	\$46,653

Source: U.S. Bureau of Economic Analysis 2008c and U.S. Census Bureau 2008c.

In 1998, the median household income in Pima County was \$34,049, with 15.9 percent of the population living below poverty (U.S. Census Bureau 2008c); the percentage of persons living in poverty decreased slightly to 15.4 percent in 2008, and the median household income increased nearly 37 percent to \$46,653 (U.S. Census Bureau 2008c). In 1998, the State of Arizona

experienced a median household income of \$37,281, with 14.9 percent of the population living below poverty (U.S. Census Bureau 2008c). The percentage of persons living below poverty in 2008 remained about the same at 14.7 percent, and the median household income increased by 37 percent to \$51,009 in 2008 (U.S. Census Bureau 2008c).

3.14.1.2 Housing

The total number of housing units in the ROI during the 3-year census ending in 2008 was 421,325, with an 11.8 percent vacancy rate, which is about 4 percent less than that of the State of Arizona (Table 3-11). There is a higher percentage of owner-occupied houses in the state than in the ROI.

Table 3-11. Housing Units by Location (3-year Census Ending 2008)

Location	Vacant Housing Units	Occupied Housing Units		Total Housing Units
		Owner	Renter	
Arizona	417,579 (15.7%)	1,537,334 (68.3 %)	712,907 (31.7%)	2,667,820
Pima County	49,526 (11.8%)	244,519 (65.8%)	127,280(34.2%)	421,325

Sources: U.S. Census Bureau 2008a and 2008b.

3.14.2 Environmental Consequences

3.14.2.1 Proposed Action

The labor for the Proposed Action would be provided by private contractors, resulting in only temporary increases in the population of the ROI. When possible, materials and other project expenditures would be obtained through merchants in the local community resulting in temporary, minor economic benefits. All construction activities, regardless of the area, would be limited to daylight hours only, to the maximum extent practicable. Safety buffer zones would be designated around all construction sites to ensure public health and safety. No displacement of residential or commercial properties would result from this action.

Adequate housing and contracting resources are available in the ROI for private contractor involvement in expanding the FOB. Only minor direct impacts on housing or employment in the ROI would result from temporary increases in the contracted workforce. No changes to local employment rates, poverty levels, or local incomes would occur as a result of this project. Long-term, but minor, beneficial socioeconomic impacts would be realized from the purchasing of fuel for the backup generator and future maintenance of the FOB.

3.14.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would have impacts on socioeconomics similar to those discussed for the solar-powered FOB in the Proposed Action during construction. The impacts expected from fuel purchase and maintenance would be significantly higher due to the higher amount of fuel necessary to run the diesel generators 24 hours per day and 365 days per year.

3.14.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would have impacts on socioeconomics similar to those discussed for the Proposed Action.

3.14.2.4 No Action Alternative

Under the No Action Alternative, the FOB would not be constructed. As a result, no additional direct impacts would be anticipated.

3.15 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

3.15.1 Affected Environment

3.15.1.1 Executive Order 12898, Environmental Justice

The fair treatment of all races has been assuming an increasingly prominent role in environmental legislation and implementation of environmental statutes. In February 1994, President Clinton signed EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. This action requires all Federal agencies to identify and address disproportionately high and adverse impacts of its programs, policies, and activities on minority and low-income populations. Pima County has approximately 32 percent of their population claiming Hispanic or Latino origin (see Table 3-7). Furthermore, Pima County has a greater percentage of its population in poverty relative to both Arizona and the Nation (Table 3-12).

Table 3-12. 2007 Poverty Data for the Nation, Arizona, and the ROI

Location	All Ages in Poverty, Percentage
United States	13.0
Arizona	14.1
Pima County	14.9

Source: U.S. Census Bureau 2008c.

3.15.1.2 Executive Order 13045, Protection of Children

EO 13045 requires each Federal agency “to identify and assess environmental health risks and safety risks that may disproportionately affect children”; and “ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.” This EO was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults. In Pima County, 226,705 individuals, or 23.9 percent of the population, are children under the age of 18 (U.S. Census Bureau 2007c). The potential for impacts on the health and safety of children would be greater where projects are located near residential areas.

3.15.2 Environmental Consequences

3.15.2.1 Proposed Action

The Proposed Action would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children. This conclusion is based on the fact that the FOB site is located on remote Federal lands, and there would be no displacement of persons (minority, low-income, children, or otherwise) as a result of implementing the Proposed Action.

3.15.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children. This conclusion is based on the fact that the FOB site is located on remote Federal lands, and there would be no displacement of persons (minority, low-income, children, or otherwise) as a result of implementing this alternative.

3.15.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children. This conclusion is based on the fact that the FOB site is located on remote Federal lands, and there would be no displacement of persons (minority, low-income, children, or otherwise) as a result of implementing this alternative.

3.15.2.4 No Action Alternative

Impacts associated with the implementation of the No Action Alternative would not result in disproportionately high or adverse environmental health or safety impacts on minority or low-income populations or children. This conclusion is based on the fact that the FOB site is located on remote Federal lands, and there would be no displacement of persons (minority, low-income, children, or otherwise) as a result of implementing this alternative.

3.16 SUSTAINABILITY AND GREENING

3.16.1 Affected Environment

In accordance with EO 13423 – *Strengthening Federal Environmental, Energy, and Transportation Management* (72 FR 3919), CBP would incorporate practices in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient and sustainable manner in support of their mission. CBP implements practices throughout the agency to: 1) improve energy efficiency and reduce greenhouse emissions, 2) implement renewable energy projects, 3) reduce water consumption, 4) incorporate sustainable environmental practices such as recycling and the purchase of recycled-content products, and 5) reduce the quantity of toxic and hazardous materials used and disposed of by the agency. Additionally, new facility construction would comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings* set forth in the *Federal Leadership in High Performance and Sustainable Memorandum of Understanding*. DHS will also reduce total consumption of petroleum products as set forth in the EO and use environmentally sound practices with respect to the purchase and disposition of electronic equipment.

3.16.2 Environmental Consequences

3.16.2.1 Proposed Action

Under the Proposed Action, the Federal sustainability and greening practices would be implemented, to the extent practicable. CBP intends to reduce petroleum-based product use with a Fleet Management Plan facilitated through CBP's Asset Management Division and to use environmentally sound practices with respect to the purchase and disposition of electronic equipment. This project would adhere to this management plan. Efforts would be made to design the new FOB to meet the LEED silver award standards.

3.16.2.2 Fossil Fuel Generator Alternative

The Fossil Fuel Generator Alternative would use more petroleum-based products than the Proposed Action alternative due to the necessity of running the diesel generators continuously. All applicable sustainability and greening practices would be implemented, to the extent practicable.

3.16.2.3 CPNWR Location Alternative

The FOB expansion on CPNWR lands would have impacts similar to those discussed for the Proposed Action.

3.16.2.4 No Action Alternative

The No Action Alternative would not result in any direct or indirect impacts, as no construction activities would take place.

3.17 SUMMARY OF IMPACTS

Table 3-13 presents a summary matrix outlining the impacts from the four alternatives analyzed and how they affect the environment and environmental resources in the proposed FOB expansion areas.

Table 3-13. Summary Matrix

Affected Environment	Proposed Action	Fossil Fuel Generator	CPNWR Location	No Action Alternative
Land Use (Section 3.2)	The Proposed Action would change the primary use on 2 acres of the 330,689-acre OPCNM from lands managed primarily for conservation purposes to lands developed with CBP facilities. The lands which would be developed are located along a public road, immediately adjacent to the existing Ajo Station tactical camp and across the public road from the 120-foot-tall SBI net tower. The Proposed Action would have direct long-term, minor adverse impacts on land use in the project area.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action, except that the impacts would occur on 3 acres of the approximately 860,000-acre CPNWR.	No direct impacts are expected. The existing tactical camp would continue to exist on the 1-acre site on the OPCNM.
Wilderness (Section 3.3)	The facilities would not be located on any lands which have been designated as wilderness by Congress. However, the facilities would be audible and visible from wilderness lands adjacent to the FOB. Under the Proposed Action alternative, there would be temporary impacts due to construction activities which are expected to last several months; however, the long-term noise footprint would be less than the No Action alternative due to development of solar power. The facilities would be visible, but taken in the context of previously developed lands in the project vicinity, the low wilderness public use levels, the increased visibility of these additional facilities is anticipated to have a minor additional impact on the wilderness experience.	The Fossil Fuel Generator Alternative would have the same visual impacts on wilderness as discussed for the solar-powered FOB in the Proposed Action; however, impacts on noise levels would be greater. The proposed FOB would be powered by two diesel-fueled generators, running continuously. Noise emissions from the operation of generators at the FOB would be localized and would have a long-term, moderate impact on designated wilderness.	The FOB expansion on CPNWR lands would be run on solar or other alternative fuel power with diesel generator back-ups. Impacts on the designated wilderness areas from noise and visual impediments would be the same as those described for the Proposed Action. However, Congress specifically authorized CBP operational activities when establishing the CPNWR wilderness area (P.L. 101-628).	Under the No Action Alternative, there would be long-term, moderate impacts on wilderness from noise emissions from the continuous use of the generator at the existing tactical camp. The generator is unbaﬄed and impacts approximately 64 acres of designated wilderness.
Geology and Soils (Section 3.4)	There would be no impacts on geologic resources of the area. A total of 2 acres of soils would be permanently impacted due to the expansion of the FOB. No soils classified as prime farmlands occur in the project area. The Proposed Action would have a long-term, negligible adverse impact on soils.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No direct impacts are expected. The existing tactical camp impacted approximately 1 acre of the Growler-Antho complex.
Hydrology and Groundwater (Section 3.5)	Water required during construction would be brought to the site from an outside source. Additionally, a SWPPP would be prepared prior to construction and would contain drainage controls to prevent soil erosion. The planned FOB expansion would have a minor impact on hydrology and groundwater. A total of 1,224 gallons of water per day would be required by the Agents and detainees at the FOB during operation. If the on-site water well does not provide potable water, these water needs would be met with water brought in from off-site. The proposed project would have a minor impact on groundwater and hydrology.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected. All water used at the existing tactical camp is brought to the site, stored in tanks for use, and treated in the on-site septic system.
Vegetation (Section 3.6)	The Proposed Action would result in the permanent loss of 2 acres of Sonoran desertscrub vegetation community. The proposed project would have long-term, negligible adverse impacts on the approximately 3.5 million acres of similar Sonoran Desert vegetation communities on CPNWR, Barry M. Goldwater Range, and OPCNM.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected. The existing tactical camp impacted approximately 1 acre of highly degraded Sonoran Desertscrub.
Wildlife and Aquatic Resources (Section 3.7)	Approximately 2 acres of previously disturbed wildlife habitat would be impacted. The habitat type is extremely abundant in the region with approximately 3.5 million acres of similar wildlife habitat on CPNWR, Barry M. Goldwater Range, and OPCNM. The Proposed Action would have a long-term, negligible adverse impact on widely available wildlife habitat and on local wildlife due to construction and operational noise.	The Fossil Fuel Generator Alternative would have the same habitat loss impacts on wildlife as discussed for the Proposed Action; however, impacts on wildlife from noise levels would be greater. The proposed FOB would be powered by two diesel-fueled generators, running continuously. Noise emissions from the operation of generators at the FOB would be localized and would have a long-term, moderate impact on wildlife.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected. The existing tactical camp impacted 1 acre of highly disturbed wildlife habitat when it was established.

Table 3-13, continued

Affected Environment	Proposed Action	Fossil Fuel Generator	CPNWR Location	No Action Alternative
Protected Species (Section 3.8)	There is only limited foraging habitat for Sonoran pronghorn within the proposed FOB expansion site. In addition, CBP would use minimization and avoidance measures to address potential impacts to species. For example, by completing construction during the winter when bats have migrated to Mexico, impacts to listed bats would be avoided. Based on these methods, CBP has determined the Proposed Action would not have a significant impact on lesser long nosed bats or Sonoran pronghorn.	The Fossil Fuel Generator Alternative would have the same habitat loss impacts on Sonoran Pronghorn and lesser long-nosed bats as discussed for the Proposed Action; however, impacts from noise levels would be greater. The proposed FOB would be powered by two diesel-fueled generators, running continuously. Noise emissions from the operation of generators at the FOB would be localized and would have a long-term, minor impact on Sonoran Pronghorn.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected. Impacts from the establishment of the tactical camp at the current site were identified and assessed in the Biological Opinion prepared for the SBInet Ajo 1 Project (USFWS 2009).
Cultural Resources (Section 3.9)	There are two previously recorded archaeological sites in the project vicinity. All impacts to these sites would be avoided through project design. As a result CBP has determined no historic resources would be impacted.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No direct impacts are expected.
Air Quality (Section 3.10)	Temporary and minor increases in air pollution would occur from the use of construction equipment and the disturbance of soils during construction of the expanded FOB. There would be no violations of air quality standards and no conflicts with the state implementation plans; therefore, impacts on air quality from the implementation of the Proposed Action would be minor.	The Fossil Fuel Generator Alternative would have the same impacts on air quality as discussed for the Proposed Action during the construction phase; however, impacts during operation would be much greater. The proposed FOB would be powered by two diesel-fueled generators, running continuously. There would be no violations of air quality standards and no conflicts with the state implementation plans; therefore, no significant impacts on air quality would occur. Air emissions from the operation of generators at the FOB would be localized and would have a long-term, minor impact on air quality.	Impacts would be the same as those discussed for the Proposed Action.	Air emissions would be approximately half of what is expected for the Fossil Fuel Generator Alternative during operations. The existing tactical camp uses one generator, running continuously.
Noise (Section 3.11)	Noise generated by construction equipment would be intermittent and last a maximum of several months, after which noise levels would return to ambient levels. The noise impacts from construction activities would be temporary and negligible to minor. Noise generated by generators and air-conditioning units associated with the FOB would have a minor, long-term impact on the noise environment. Impacts from noise emissions would be less in both duration and magnitude than those currently experienced from the diesel generators in continuous use at the tactical camp site.	The Fossil Fuel Generator Alternative would have greater impacts on noise levels than the Proposed Action. The proposed FOB would be powered by two diesel-fueled generators, running continuously. Noise emissions from the operation of generators at the FOB would be localized and would have a long-term, minor impact on the noise levels within the designated wilderness areas. Noise levels from the generators would be attenuated to 35 dBA at 492 feet. Approximately 17 acres of land would be contained within the 35 dBA contour.	Impacts would be the same as those discussed for the Proposed Action.	The tactical camp would continue to impact approximately 63.86 acres with an increased soundscape. The impact would be long-term and minor.
Roadways and Traffic (Section 3.12)	The increase of vehicular traffic would occur to supply materials and work crews for a short period of time. Once construction work is completed, maintenance visits to the FOB would be required up to twice a month. Maintenance visits would have a long-term, negligible impact on traffic. There would be an estimated reduction of 10,600 trips annually along the Bates Well Road.	The Fossil Fuel Generator Alternative would have greater impacts on roadways and traffic during operation. Diesel fuel would be delivered to the site, adding to the traffic along Darby Wells Road and Bates Well Road. Additional traffic from maintenance and fuel deliveries would have a long-term, minor impact on roadways and traffic along the access route.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected.
Hazardous Materials (Section 3.13)	The Proposed Action would not result in the exposure of the environment or public to any hazardous materials. The potential exists for minor releases of POLs during construction, operational or maintenance activities. BMPs would be put in place to avoid any potential contamination at the proposed sites during construction activities and operation.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No additional direct impacts are expected.
Socioeconomics (Section 3.14)	The Proposed Action would not cause any changes to local employment rates, poverty levels, or local incomes. Long-term beneficial, socioeconomic impacts could be realized from the purchasing of fuel for generators.	Impacts would be the same as those discussed for the Proposed Action. However, long-term impacts associated with fuel purchases would be greater due to the increased fuel necessary for full-time diesel generators.	Impacts would be the same as those discussed for the Proposed Action.	No direct impacts are expected.
Environmental Justice (Section 3.15)	Implementation of the Proposed Action would cause no direct impacts on minority and low-income populations.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.
Sustainability and Greening (Section 3.16)	Under the Proposed Action, applicable Federal sustainability and greening practices would be implemented to the greatest extent practicable.	Impacts would be the same as those discussed for the Proposed Action.	Impacts would be the same as those discussed for the Proposed Action.	No direct impacts are expected.

SECTION 4.0
BEST MANAGEMENT PRACTICES

4.0 BEST MANAGEMENT PRACTICES

This chapter describes those measures that would be implemented to reduce or eliminate potential adverse impacts on the human and natural environment. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. These are general measures; development of specific environmental design or conservation measures would be required for certain activities implemented under the Proposed Action. The specific measures would be coordinated through appropriate agencies and land managers or administrators, as required. Environmental design measures vary by project and are typically coordinated with the USFWS and other appropriate Federal and state resource agencies.

4.1 PROJECT PLANNING/DESIGN

CBP will use disturbed areas or areas that will be used later in the construction period for staging, parking, and equipment storage.

CBP will ensure that all construction will follow *DHS Directive 025-01* for waste for Sustainable Practices for Environmental, Energy, and Transportation Management. A CBP-approved spill protection plan (or SPCCP) will be developed and implemented at construction and maintenance sites to ensure that any toxic substances are properly handled and that escape into the environment is prevented. Drip pans underneath equipment, containment zones used when refueling vehicles or equipment, and other measures are to be included. CBP will incorporate BMPs relating to project area delineation, water sources, waste management, and site restoration into project planning and implementation for construction and maintenance.

All BMPs to be implemented by the project contractor will be included in the contract.

4.2 GENERAL CONSTRUCTION ACTIVITIES

CBP will clearly demarcate the project construction area perimeter, including access roads, with flagging or fencing in accordance with the land management agency. No disturbance outside that perimeter will be authorized.

CBP will minimize the number of construction and maintenance vehicles traveling to and from the project site, as well as the number of trips per day, to reduce the likelihood of disturbing animals in the area, or injuring animals on the road, or disturbing their habitat.

Within the designated disturbance area, CBP will minimize the area to be disturbed by limiting deliveries of materials and equipment to only those needed for effective project implementation.

CBP will avoid contamination of ground and surface waters by storing concrete wash water and any water that has been contaminated with construction materials, oils, equipment residue, etc., in closed containers on-site until removed for disposal. This wash water is toxic to wildlife. Storage tanks must have proper air space (to avoid rainfall-induced overtopping), be on-ground containers, and be located in upland areas instead of washes.

CBP will avoid lighting impacts during the night by conducting construction and maintenance activities during daylight hours only. If night lighting is unavoidable, CBP will: 1) use special bulbs designed to ensure no increase in ambient light conditions, 2) minimize the number of lights used, 3) place lights on poles pointed down toward the ground, with shields on lights to prevent light from going up into sky or out laterally into landscape, and 4) selectively place lights so they are directed away from all native vegetative communities.

CBP will avoid transmitting disease vectors, introducing invasive non-native species, and depleting natural aquatic systems by using wells, irrigation water sources, or treated municipal sources for construction or irrigation purposes instead of natural sources.

CBP will include a configuration to support fire management operations in the design of facilities that require land clearing. CBP will minimize fences and other infrastructure that may be damaged due to periodic wildfire.

SECTION 5.0 REFERENCES



5.0 REFERENCES

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SECTION 6.0

ACRONYMS AND ABBREVIATIONS

6.0 ACRONYMS AND ABBREVIATIONS

1°	Primary
2°	Secondary
AC	Advisory Circulars
ACHP	Advisory Council on Historic Preservation
ADA	Arizona Department of Agriculture
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AESO	Arizona Ecological Services Office
AGFD	Arizona Game and Fish Department
AOR	area of responsibility
ASM	Arizona State Museum
bgs	below ground surface
BLM	Bureau of Land Management
BMP	best management practices
CBP	U.S. Customs and Border Protection
CBV	cross-border violator
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
CPNWR	Cabeza Prieta National Wildlife Refuge
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DHS	Department of Homeland Security
DOI	Department of Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FOB	Forward Operating Base
FONSI	Finding of No Significant Impact
FR	Federal Register
GHG	greenhouse gases
GSRC	Gulf South Research Corporation
HFC	hydrochlorofluorocarbons
H.R.	House Resolution

HUD	U.S. Department of Housing and Urban Development
INS	Immigration and Naturalization Service
IO	isolated occurrence
JTF-6	Joint Task Force-Six
kW	Kilowatt
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
N ₂ O	nitrous oxide
NO ₂	nitrogen dioxide
NOA	Notice of Availability
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	ozone
OPCNM	Organ Pipe Cactus National Monument
P	primary
PCPI	per capita personal income
PM-10	particulate matter measuring less than 10 microns
P.L.	Public Law
POL	petroleum, oil, and lubricants
ppm	parts per million
ROI	region of influence
S	sensitive
SBI	Secure Border Initiative
SC	species of concern
SHPO	State Historic Preservation Officer
SO ₂	sulfur dioxide
SPCCP	Spill Prevention Control and Countermeasures Plan
SR	salvage restricted
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
U.S.C.	U.S. Code
USACE	U.S. Army Corps of Engineers
USBP	U.S. Border Patrol
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
WSC	wildlife of special concern

APPENDIX A
OPCNM SPECIAL USE PERMIT

CONDITIONS OF THIS PERMIT
Permit # IMR-ORPI-9500 10-04 Initial
Permittee: Customs & Border Protection

1. The permittee shall exercise this privilege subject to the supervision of the Superintendent, and shall comply with all applicable laws and regulations of the area.
2. The permittee shall pay the National Park Service for any damages resulting from this use that would not reasonably be inherent in the use for which the permittee is authorized as described in this permit when consistent with applicable law, regulations, and rulings, and to the extent appropriated funds are made available for such purpose.
3. Assignment - this permit may not be transferred or assigned without the consent of the Superintendent in writing.
4. Nothing in this permit may be construed to obligate the agencies of the United States to any current or future expenditure of funds in advance, or in excess, of the availability of appropriations.
5. **Revocation – This permit may be terminated upon breach of any of the conditions herein or at the discretion of the Superintendent if he deems it necessary to do so in order to protect public health or safety or park resources. The Superintendent will consult with the permittee before any discretionary termination.**
6. The permittee will comply with all applicable public health and sanitation standards and codes.
7. The permittee will require all contractor employees and assigned project personnel to display visible company logos on vehicles and employees are required to carry ID Badges identifying them as employees of the contractor or assigned project personnel
8. The permittee will immediately inform the National Park Service of any accidents, criminal incidents, or emergency medical issues within the monument. **The following numbers may be utilized to report such incidents: (623) 580-5515 or 911**
9. The permittee will have adequate fire extinguishers with each vehicle.
10. **The permittee will adhere to a 25 mph or less speed limit at all times.**
11. **Driving or parking vehicles off of delineated roads or the pre-established "footprint" of the worksite is prohibited.**
12. The permittee will minimize the number of vehicles utilized for the project so that normal traffic flows may be maintained by other vehicles using the area.
13. Workers wishing to carry a firearm in their vehicle while in the monument may do so, but the use of a firearm is **PROHIBITED**, per 36 CFR 2.4.
14. During the project if **inadvertent discoveries** of cultural resources are made, they should be reported to the ORPI Archeologist at (520) 387-6849 ext. 7120. Inadvertent discoveries, particularly if there are human remains or funerary objects present, should be left in situ, treated with respect, and not disturbed.
15. In the unlikely event that **human remains** are discovered during project work, work should be halted immediately within a 100 ft. radius and the ORPI Superintendent and Staff Archeologist should be contacted without delay at (520) 387-6849 ext. 7500, radio call number 500 (Superintendent Lee Baiza) or (520) 387-6849 ext. 7120, radio call number 120 (Archeologist Connie Gibson), to begin NAGPRA protection and notification procedures.
16. The permittee will maintain all access and administrative roads during construction to meet park requirements, and will stay within the existing road footprint. The permittee will repair roads in cooperation with NPS.

17. All best management practices, avoidance and mitigation measures identified in the Ajo1 SBInet Biological Opinion, Environmental Assessment and National Historic Preservation Act compliance documents must be adhered to.

SITE SPECIFIC STIPULATIONS

Bates Well FOB Location:

18. The existing Bates Well FOB and all associated infrastructure will be dismantled and removed in to the satisfaction of the Superintendent.

West Boundary FOB Location:

19. The new FOB location, shown in the attached map, measures one acre and is located within Organ Pipe Cactus National Monument, outside of wilderness, north of El Camino Del Diablo and adjacent to the park's western boundary.
20. The entirety of the West Boundary FOB will be located inside the area described above.
21. Vehicular access to and from the West Boundary FOB site is granted only via the southwest corner of the site, in that area that has already been previously disturbed.
22. CBP must obtain prior written approval from the Superintendent regarding the removal and deposition of any of materials coming from the site.
23. Foreign fill materials will be permitted to be brought and utilized on the site only upon receipt of written permission from the Superintendent.
24. The design of any proposed perimeter fence around the West Boundary FOB must meet with approval in writing by the Superintendent prior to construction.
25. All West Boundary FOB construction must comply with Arizona Department of Environmental Quality (ADEQ) requirements and regulations.
26. A Stormwater Pollution Prevention Plan (SWPPP) must be prepared prior to the West Boundary FOB construction.
27. An erosion and sediment control plan, which stipulates measures to minimize erosion and sedimentation during and after construction, must be developed and approved by the park Superintendent and later implemented during the West Boundary FOB construction and subsequent use.



United States Department of the Interior

NATIONAL PARK SERVICE
ORGAN PIPE CACTUS NATIONAL MONUMENT

10 Organ Pipe Drive
Ajo, Arizona 85321



A3815

July 7, 2010

Mr. Paul Kuhn
Acting Chief Patrol Officer in Charge
US Border Patrol - Ajo Station
State Route 85
Why, AZ 85321

Dear Mr. Kuhn:

I am writing to express my conditional support for construction of a septic system at the Forward Operating Base (FOB) that is proposed along the western boundary of Organ Pipe Cactus National Monument adjacent to the Camino Del Diablo, and the park's western boundary with Cabeza Prieta National Wildlife Refuge. The area is approximately 1 acre in size and has been agreed upon as the preferred site for establishing the FOB.

A meeting with representatives of the US Border Patrol (USBP), the National Park Service (NPS), and the US Fish and Wildlife Service (FWS) was held at the USBP Ajo Station headquarters. Among the issues discussed at this meeting was the size of the septic system at the FOB. The Biological Opinion on SBInet Ajo 1 Tower System states: "The septic system will be of sufficient design and capacity for up to ten people." (FWS December 7, 2009). Based on my understanding that FWS Ecological Services has granted permission for construction of a larger septic system, I will issue a special use permit (SUP) for the system, provided the following conditions and requirements are met:

- Provide NPS with copies of all required and approved ADEQ permits prior to construction.
- Provide NPS a copy of the final design drawings of the septic system
- Provide NPS written documentation from FWS Ecological Services (ES) Office and Cabeza Prieta NWR stating that they have no objection to the proposed action.

Allowing construction of the expanded capacity septic system is conditional and will be revoked if the above requirements are not met. Permitting construction of the septic system should in no way be interpreted as permission to increase the number of agents operating out of the FOB. Additional FWS consultation and an assessment of the environmental effects of additional agents would need to be conducted prior to any changes in numbers.

Please feel free to contact Mark Sturm, Chief of Resource Management, at (520) 387-6849 x 17110 should you have questions or concerns regarding this matter. Thank you.

Sincerely,

Lee Baiza
Superintendent
cc: Wayne Lackner, USBP
Sherry Barrett, USFWS

APPENDIX B
CORRESPONDENCE





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

MAR 31 2011

Mr. Steve Spangle, Field Supervisor
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, AZ 85021-4915

Dear Mr. Spangle:

U.S. Customs and Border Protection (CBP) and the Department of Homeland Security (DHS) intends to supplement the *Environmental Assessment (EA) for the Proposed Secure Border Initiative (SBI)net Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol (USBP), Tucson Sector* for the Proposed Ajo Forward Operating Base (FOB). This supplemental EA (SEA) will address the construction, operation, and maintenance of a FOB at the site of the current USBP camp located north of El Camino del Diablo at the Organ Pipe Cactus National Monument (OPCNM)/Cabeza Prieta National Wildlife Refuge property boundary (Figure 1). The USBP camp was relocated from Bates Well to its current location in 2011 as part of the Ajo-1 Tower Project.

The SEA will analyze the potential for significant adverse or beneficial impacts of the proposed actions. At the present time, the preferred alternative includes the expansion of the current one-acre footprint of the USBP camp to up to a 3-acre site within the non-wilderness corridor, entirely within the OPCNM. The proposed FOB would be referred to as the Ajo FOB and include: an Administrative/lodging modular building to accommodate up to 32 agents, perimeter fencing, electric generators, drinking water well, septic system, fire suppression system, security equipment and cameras, fuel storage, parking for 35 vehicles, a Detention and Processing modular building to accommodate 40 individuals, an equestrian facility with 8 stalls and hay storage, an ATV storage area, and an supply storage area.

CBP is currently in the process of gathering the most current information available regarding Federal and state listed species potentially occurring within this area. CBP respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of sensitive resources (e.g., rare or unique plant communities, threatened, endangered, and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed USBP activities.

We intend to provide your agency with a copy of the Draft SEA to solicit formal comments once the document is completed.

Mr. Steve Spangle
Page 2

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Steve Hodapp at (202) 325-4459.

Sincerely,

A handwritten signature in black ink, appearing to read 'Loren Flossman', with a long horizontal flourish extending to the right.

Loren Flossman
Director
Border Patrol Facilities and Tactical Infrastructure
Program Management Office

cc: Ms. Erin Fernandez
Mr. Scott Richardson

Identical copies of the coordination letter from CBP (dated March 31, 2011) were sent to the following Federal and state agencies and Native American tribal representatives.

Mr. Lee Biaza, Superintendent
Organ Pipe Cactus National Monument
10 Organ Pipe Drive
Ajo, AZ 85321

Mr. Sid Slone, Manager
Cabeza Prieta National Wildlife Refuge
1611 North Second Avenue
Ajo, AZ 85321

Arizona Game and Fish Department
WMHB - Project Evaluation Program
ATTN: Project Evaluation Program Supervisor
5000 W. Carefree Highway
Phoenix, AZ 85086-5000

Mr. Steve Owens, Director
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007

Ms. Joan Card, Director
Arizona Department of Environmental Quality
Water Quality Division
1110 West Washington Street
Phoenix, AZ 85007

Mr. Bill Ruth, Commissioner
U.S. International Boundary and Water Commission
4171 North Mesa Street
Suite CIOO
El Paso, TX 79902

The Honorable Ned Norris, Chairman
Tohono O'odham Nation
P.O. Box 837
Sells, AZ 85634

The Honorable Leroy Shingoitewa
Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin
Director

April 20, 2011

David Guzewich
U.S. Customs and Border Protection
1300 Pennsylvania Avenue NW
Washington, DC 20229

SENT VIA E-MAIL: david.guzewich@dhs.gov

Re: Supplement to Environmental Assessment for SBInet Ajo-1 Tower Project, Ajo Station

Dear Mr. Guzewich:

We received the March 31, 2011 letter requesting comments on the supplement to the Environmental Assessment for the Proposed Secure Border Initiative Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol, Tucson Sector. The Arizona Department of Environmental Quality, Water Quality Division (ADEQ) is responsible for ensuring the delivery of safe drinking water to customers of regulated public water systems under the Safe Drinking Water Act, permits for proposed discharges to surface waters of the United States under the federal Clean Water Act (CWA), permits under the State aquifer protection program, and water quality certifications of certain federal licenses and permits. With the information provided, ADEQ would like to make you aware of some water quality issues that may need to be addressed.

1. Clean Water Act

As of December 5, 2002, Arizona has authorization from the U.S. Environmental Protection Agency (EPA) to operate the National Pollutant Discharge Elimination System (NPDES) Permit Program (Section 402 of the CWA) on the state level. The NPDES program, and the surface water permits issued, are referred to as the Arizona Pollutant Discharge Elimination System (AZPDES) Permit Program. Stormwater discharges associated with construction activities, such as clearing, grading, or excavating, that disturb one acre or more must obtain permit coverage under the AZPDES Construction General Permit. Permit coverage is also required if the project is part of a larger common plan of development and the entire project will ultimately disturb one or more acres. As part of permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared and implemented before ground disturbance begins. The SWPPP must comply with ADEQ's Construction General Permit's SWPPP requirements, and must identify such elements as the project scope, anticipated acreage of land disturbance, and the best management practices that would be implemented to reduce soil erosion, and contain or minimize the pollutants that might be released to waters of the U.S. In addition to preparing the SWPPP, the project proponent must file for permit coverage. If one or more acres of land disturbance will occur, then the project will require coverage under the Construction General Permit. The Construction General Permit, SWPPP checklist, and associated forms are available on ADEQ's website at: <http://www.azdeq.gov/environ/water/permits/stormwater.html#const>. For questions, please contact

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733 BW1 FOIA CBP 007146

Chris Henninger in our Stormwater and General Permits Unit at (602) 771-4508 or by e-mail at cph@azdeq.gov.

If project activities will occur inside the Ordinary High Water Mark of any water of the U.S., then a CWA section 404 permit (a.k.a. dredge and fill) from the U.S. Army Corps of Engineers may be required. If a 404 permit (or any other federal permit) is required for the project, a state-issued CWA section 401 certification of the permit may be required to ensure that the permitted activities will not result in a violation of Arizona's surface water quality standards. For questions, please contact Bob Scalamera at (602) 771-4502 or by e-mail at rs3@azdeq.gov. The CWA 401 application form can be downloaded from ADEQ's website at: <http://www.azdeq.gov/function/forms/appswater.html#dredge>.

2. Drinking Water

The letter mentions the use of a drinking water well. A water system that has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year must comply with state drinking water regulations. As part of the regulatory requirements, an applicant for a new drinking water system, or modifying an existing system, must submit plans for review and approval before construction begins. Future drinking water systems may require that ADEQ approve the source water as a drinking water source. Also, ADEQ may need to evaluate and approve an Elementary Business Plan to ensure that the water system has and can maintain adequate technical, managerial, and financial capabilities to consistently provide safe drinking water. While ADEQ has delegated permitting and enforcement responsibilities of state rules for drinking water systems to some counties, ADEQ is responsible for all reviews and approvals for a federal entity. For questions, please contact Donna Calderon in the Drinking Water Unit at (602) 771-4641 or via e-mail at dml@azdeq.gov.

3. Aquifer Protection Program

The letter mentions the use of a septic system. Wastewater treatment facilities, including on-site treatment facilities, require an Aquifer Protection Permit (APP). A general permit is available for most sewage collection systems and on-site systems (septic) that have a design flow less than 24,000 gallons per day. While ADEQ has delegated permitting and enforcement responsibilities of state rules for wastewater systems to some counties, ADEQ is responsible for all reviews and approvals for a federal entity. Any on-site system that cannot qualify for a general permit will require an individual APP, which can be issued only by ADEQ. For questions, please contact David Burchard in the Wastewater and Subdivision Review Unit at (602) 771-4298 or via e-mail at db2@azdeq.gov.

We appreciate the opportunity to review and provide comments. If you need further information, please contact Wendy LeStarge of my staff at (602) 771-4836 or via e-mail at wll@azdeq.gov, or myself at (602) 771-4416 or via e-mail at lc1@azdeq.gov.

Sincerely,



Linda Taunt, Deputy Director
Water Quality Division



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin
Director

April 28, 2011

Ms. Loren Flossman
Director, Border Patrol Facilities and Tactical Infrastructure
Program Management Office
U.S. Customs and Border Protection
1300 Pennsylvania Avenue NW
Washington, DC 20229

RE: Santa Cruz County: Scoping Letter for the Proposed Ajo Forward Operating Base

Dear Ms. Loren Flossman:

The ADEQ Air Quality Division has reviewed your letter, dated March 31, 2011, concerning the Scoping Letter for the Proposed Ajo Forward Operating Base Project. Your project is located in a nonattainment area regulated for 10-micron particulate matter (PM₁₀). As described, it may have a de minimis impact on air quality. Disturbance of particulate matter, however, is anticipated during the construction phase and during operation of ATVs. Please include details about numbers of ATVs and estimated PM₁₀ emissions in your supplement. Considering prevailing winds, to comply with other applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided for consideration:

REDUCE DISTURBANCE of PARTICULATE MATTER during CONSTRUCTION

This action, plan or activity may temporarily increase ambient particulate matter (dust) levels. Particulate matter 10 microns in size and smaller can penetrate the lungs of human beings and animals and is subject to a National Ambient Air Quality Standard (NAAQS) to protect public health and welfare. Particulate matter 2.5 microns in size and smaller is difficult for lungs to expel and has been linked to increases in death rates; heart attacks by disturbing heart rhythms and increasing plaque and clotting; respiratory infections; asthma attacks and cardiopulmonary obstructive disease (COPD) aggravation. It is also subject to a NAAQS.

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

BW1 FOIA CBP 007148

The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

- I. Site Preparation and Construction
 - A. Minimize land disturbance;
 - B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air;
 - C. Cover trucks when hauling soil;
 - D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - E. Stabilize the surface of soil piles; and
 - F. Create windbreaks.
- II. Site Restoration
 - A. Revegetate any disturbed land not used;
 - B. Remove unused material; and
 - C. Remove soil piles via covered trucks.

The following rules applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- ☐ Arizona Administrative Code R18-2-604 through -607
- ☐ Arizona Administrative Code R18-2-804

Should you have further questions, please do not hesitate to call me at (602) 771-2375, or Lhamo at (602) 771-2373.

Very truly yours,



Diane L. Arnst, Manager
Air Quality Planning Section

Enclosures (2)

cc: Bret Parke, EV Administrative Counsel
Lhamo LeMoine, Administrative Secretary
File No. 257647

- a. If the burning would occur at a solid waste facility in violation of 40 CFR 258.24 and the Director has not issued a variance under A.R.S. § 49-763.01.
- E. Open outdoor fires of dangerous material. A fire set for the disposal of a dangerous material is allowed by the provisions of this Section, when the material is too dangerous to store and transport, and the Director has issued a permit for the fire. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The Director shall permit fires for the disposal of dangerous materials only when no safe alternative method of disposal exists, and burning the materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts that will endanger health or safety.
- F. Open outdoor fires of household waste. An open outdoor fire for the disposal of household waste is allowed by provisions of this Section when permitted in writing by the Director or a delegated authority. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The permittee shall conduct open outdoor fires of household waste in an approved waste burner and shall either:
1. Burn household waste generated on-site on farms or ranches of 40 acres or more where no household waste collection or disposal service is available; or
 2. Burn household waste generated on-site where no household waste collection and disposal service is available and where the nearest other dwelling unit is at least 500 feet away.
- G. Permits issued by a delegated authority. The Director may delegate authority for the issuance of open burning permits to a county, city, town, air pollution control district, or fire district. A delegated authority may not issue a permit for its own open burning activity. The Director shall not delegate authority to issue permits to burn dangerous material under subsection (E). A county, city, town, air pollution control district, or fire district with delegated authority from the Director may assign that authority to one or more private fire protection service providers that perform fire protection services within the county, city, town, air pollution control district, or fire district. A private fire protection provider shall not directly or indirectly condition the issuance of open burning permits on the applicant being a customer. Permits issued under this subsection shall comply with the requirements in subsection (D)(3) and be in a format prescribed by the Director. Each delegated authority shall:
1. Maintain a copy of each permit issued for the previous five years available for inspection by the Director;
 2. For each permit currently issued, have a means of contacting the person authorized by the permit to set an open fire if an order to extinguish open burning is issued; and
 3. Annually submit to the Director by May 15 a record of daily burn activity, excluding household waste burn permits, on a form provided by the Director for the previous calendar year containing the information required in subsections (D)(3)(e) and (D)(3)(f).
- H. The Director shall hold an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- I. Nothing in this Section is intended to permit any practice that is a violation of any statute, ordinance, rule, or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 10 A.A.R. 388, effective March 16, 2004 (Supp. 04-1).

R18-2-603. Repealed

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4). Repealed effective October 8, 1996 (Supp. 96-4).

R18-2-604. Open Areas, Dry Washes, or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note

Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning areas, as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 6 A.A.R. 2009, effective May 12, 2000 (Supp. 00-2). Amended by final rulemaking at 11 A.A.R. 2210, effective July 18, 2005 (Supp. 05-2).

R18-2-610. Definitions for R18-2-611

The definitions in Article 1 of this Chapter and the following definitions apply to R18-2-611:

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM₁₀ emissions from a regulated agricultural activity.
5. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
6. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
7. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM₁₀ nonattainment area.
8. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
9. "Committee" means the Governor's Agricultural Best Management Practices Committee.
10. "Cover crop" means plants or a green mature crop grown for seasonal soil protection or soil improvement.
11. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
12. "Cropland" means land on a commercial farm that:
 - a. is within the time-frame of final harvest to plant emergence;
 - b. has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
 - c. is a turn-row.

ARTICLE 8. EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)

R18-2-801. Classification of Mobile Sources

- A. This Article is applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations.
- B. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-801 renumbered to Section R18-2-901, new Section R18-2-801 renumbered from R18-2-601 effective November 15, 1993 (Supp. 93-4).

R18-2-802. Off-road Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-802 renumbered to Section R18-2-902, new Section R18-2-802 renumbered from R18-2-602 effective November 15, 1993 (Supp. 93-4).

R18-2-803. Heater-planer Units

No person shall cause, allow or permit to be emitted into the atmosphere from any heater-planer operated for the purpose of reconstructing asphalt pavements smoke the opacity of which exceeds 20%. However three minutes' upset time in any one hour shall not constitute a violation of this Section.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-803 renumbered to Section R18-2-903, new Section R18-2-803 renumbered from R18-2-603 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

R18-2-805. Asphalt or Tar Kettles

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any asphalt or tar kettle smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the operation of an asphalt or tar kettle without minimizing air contaminant emissions by utilizing all of the following control measures:
1. The control of temperature recommended by the asphalt or tar manufacturer;
 2. The operation of the kettle with lid closed except when charging;
 3. The pumping of asphalt from the kettle or the drawing of asphalt through cocks with no dipping;
 4. The dipping of tar in an approved manner;
 5. The maintaining of the kettle in clean, properly adjusted, and good operating condition;
 6. The firing of the kettle with liquid petroleum gas or other fuels acceptable to the Director.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-805 renumbered to Section R18-2-905, new Section R18-2-805 renumbered from R18-2-605 effective November 15, 1993 (Supp. 93-4).



United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513



In reply refer to:
AESO/SE
22410-2009-SL-0089-R002

May 9, 2011

MAY 31 2011

Mr. Loren Flossman, Director
U.S. Customs and Border Protection
Border Patrol Facilities and Tactical
Infrastructure Program Management Office
1300 Pennsylvania Avenue NW
Washington, DC 20229

RE: Proposed Construction, Operation, and Maintenance of the Forward Operating Base (FOB) Located North of El Camino Del Diablo at the Organ Pipe Cactus National Monument, Pima County, Arizona

Dear Mr. Flossman:

Thank you for your recent request for information on threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may occur in your project area. The Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs:

<http://www.fws.gov/southwest/es/arizona>

If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find Arizona County/Species List on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents that may be available. Click on the "Cactus" icon to view the desired document.

Register (FR) are included for each listed and proposed species. The FR is available at most Federal depository libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate or conservation agreement species. Candidate species are those for which there is sufficient information to support a proposal for listing; conservation agreement species are those for which we have entered into an agreement to protect the species and its habitat. Although candidate and conservation agreement species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona and some of the Native American Tribes protect some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species, or contact the appropriate Native American Tribe to determine if sensitive species are protected by Tribal governments in your project area. We further recommend that you invite the Arizona Game and Fish Department and any Native American Tribes in or near your project area to participate in your informal or formal Section 7 Consultation process.

For additional communications regarding this project, please refer to consultation number 22410-2009-SL-0089-R002. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Please note this letter does not authorize avian mortality for species that are protected under the Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. sec. 703-712) nor does this letter authorize the destruction of occupied nests of migratory birds. If you believe migratory birds will be affected by this activity, we recommend you contact our Migratory Bird Permit Office, P.O. Box 709, Albuquerque, NM 87103, (505) 248-7882, or FW2_birdpermits@fws.gov. For more information regarding the MBTA, please visit the following web site: <http://www.fws.gov/migratorybirds/>.

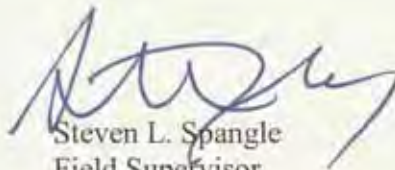
Mr. Loren Flossman, Director

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If we may be of further assistance, please feel free to contact Brenda Smith (928) 226-0614 (x101) for projects in Northern Arizona, Debra Bills (602) 242-0210 (x239) for projects in central Arizona and along the Lower Colorado River, and Scott Richardson (520) 670-6150 (x242) for projects in southern Arizona.

Sincerely,



Steven L. Spangle
Field Supervisor

cc: Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ
(Attn: E. Fernandez and S. Sferra)
Organ Pipe Cactus National Monument, Ajo, AZ

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Comment Response Matrix Preliminary Draft Supplemental Environmental Assessment for the SBI-net Ajo-1 Project – AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station					
#	Location		Comment	Reviewer	GSRC Response
	Page	Line Section			
1.			<p>Please include details about numbers of ATVs and estimated PM10 emissions in your supplement</p>	ADEQ Air	<p>Border Patrol operations, including ATV patrols will not be discussed or analyzed in this document. The estimated PM10 emissions are included in Section 3.10.</p>
2.			<p>The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucking soil off the construction site:</p> <p>I. Site Preparation and Construction</p> <ul style="list-style-type: none"> A. Minimize land disturbance; B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air; C. Cover trucks when hauling soil; D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site; E. Stabilize the surface of soil piles; and F. Create windbreaks. <p>II. Site Restoration</p> <ul style="list-style-type: none"> A. Revegetate any disturbed land not used; B. Remove unused material; and C. Remove soil piles via covered trucks. 	ADEQ Air	<p>These BMPs have been included.</p>
3.			<p>The following rules applicable to reducing dust during construction, demolition, and earth moving activities are enclosed:</p> <ul style="list-style-type: none"> o Arizona Administrative Code RI8-2-604 through -607 o Arizona Administrative Code RI8-2-804 	ADEQ Air	<p>The project will comply with all applicable Arizona Air Quality codes.</p>

Comment Response Matrix Preliminary Draft Supplemental Environmental Assessment for the SBI-net Ajo-1 Project – AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station					
#	Location		Comment	Reviewer	GSRC Response
	Page	Line	Section		
4.				ADEQ Water	The project will comply with all applicable parts of the Clean Water Act, and prior to construction, a Construction General Permit will be obtained from ADEQ.
			<p>The Clean Water Act: Stormwater discharges associated with construction activities such as clearing, grading, or excavating, that disturb one acre or more must obtain permit coverage under the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General Permit. Permit coverage is also required if the project is part of a larger common plan of development and the entire project will ultimately disturb one or more acres. As part of permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared and implemented before ground disturbance begins. The SWPPP must comply with ADEQ's scope, anticipated acreage of land disturbance, and the best management practices that would be implemented to reduce soil erosion, and contain or minimize the pollutants that might be released to waters of the U.S. In addition to preparing the SWPPP, the project proponent must file for permit coverage. If one or more acres of land disturbance will occur, then the project will require coverage under the Construction General Permit. The Construction General Permit, SWPPP checklist, and associated forms are available on ADEQ's website at: www.azdeq.gov/enviro/water/permits/stormwater.html#const.</p>		
5.				ADEQ Water	The project will comply with all applicable ADEQ regulations on drinking water.
			<p>Drinking Water: A water system that has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year must comply with state drinking water regulations. As part of the regulatory requirements, an applicant for a new drinking water system, or modifying an existing system, must submit plans for review and approval before construction begins. Future drinking water systems may require that ADEQ approve the source water as a drinking water source. While ADEQ has delegated permitting and enforcement responsibilities of state rules for drinking water systems to some counties, ADEQ is responsible for all reviews and approvals for a federal entity.</p>		
6.				ADEQ Water	The project will comply with all applicable ADEQ regulations on wastewater treatment facilities. If any changes are made to the existing system, ADEQ will be consulted.
			<p>Aquifer protection Program: Wastewater treatment facilities, including on-site treatment facilities, require an Aquifer protection Permit (APP). A general permit is available for most sewage collection systems and on-site systems (septic) that have a design flow less than 24,000 gallons per day. While ADEQ has delegated permitting and enforcement responsibilities of state rules for wastewater systems to some counties, ADEQ is responsible for all review and approvals for a federal entity. Any on-site system that cannot quality for a general permit will require an individual APP, which can be issued only by ADEQ.</p>		

ARIZONA DAILY STAR

Tucson, Arizona

STATE OF ARIZONA)
COUNTY OF PIMA)

Debbie Capanear, being first duly sworn deposes and says: that she is the Legal Advertising Representative of **TNI PARTNERS**, a General Partnership organized and existing under the laws of the State of Arizona, and that it prints and publishes the Arizona Daily Star, a daily newspaper printed and published in the City of Tucson, Pima County, State of Arizona, and having a general circulation in said City, County, State and elsewhere, and that the attached and was printed and

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published correctly in the entire issue of the said Arizona Daily Star on each of the following dates, to-wit:

AUGUST 3, 2011

Debbie Capanear

Subscribed and sworn to before me this 9 day of
September, 2011

Silvia H. Valdez
Notary Public



SILVIA H. VALDEZ
Notary Public—Arizona
Pima County
Expires 12/15/2013

My commission expires _____

AD NO. 7558071

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL
ASSESSMENT FOR THE PROPOSED
AJO FORWARD OPERATING BASE
AJO STATION'S AREA OF
RESPONSIBILITY U.S. BORDER
PATROL TUCSON SECTOR

The public is hereby notified of the availability of the draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) prepared by Customs and Border Protection for the expansion of the U.S. Border Patrol Ajo Station Forward Operating Base in Pima County, Arizona. The location for the proposed action is a 3-acre site along Bates Well Road at the western boundary of Organ Pipe Cactus National Monument. The draft EA and FONSI will be available at the Pima County Public Library, Salazar-Ajo Branch, 33 Plaza, Ajo, Arizona. It is also available for download at the following URL address: <http://ecso.syl.usace.army.mil/Pages/Publicreview.cfm>.

All comments must be received by September 2 and should be sent to Mr. David C. Guzewich, Environmental Planning, Border Patrol Facilities and Tactical Infrastructure, Program Management Office, Via mail: 1301 Constitution Avenue NW, Suite B-155, Washington DC 20229.

Via fax: (202) 344-1250
Via email:
David.Guzewich@dhs.gov

Publish August 3, 2011
Arizona Daily Star

<p style="text-align: center;">Comment Response Matrix Draft Environmental Assessment for the AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station</p>					
#	Location		Comment	Reviewer	CBP Response
1.			The Department prefers the Proposed Action	Arizona Game and Fish Department (AGFD)	CBP concurs.
2.			With the successful implementation of proposed best management practices, the Department does not anticipate any significant adverse impacts to wildlife species resulting from the approval of this proposed project.	AGFD	CBP appreciates your comments.
3.			On behalf of Linda Taunt, Deputy Division Director, Water Quality Division of the Arizona Department of Environmental Quality, thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Proposed Ajo Forward Operation Base. The Draft Environmental Assessment addresses our comments that were submitted April 20, 2011. We have no additional comments.	Arizona Department of Environmental Quality (ADEQ) Water Quality Division	CBP appreciates your comments.
4.			The USBWC has reviewed the above referenced project and determined that the project should not have any impacts on USBWC property or interests. Construction should maintain best management practices to prevent runoff or degradation of air quality during construction to avoid impacts to watershed interests in Mexico.	U.S. International Boundary and Water Commission (USIBWC)	CBP concurs. The best management practices identified for each environmental resource will be implemented to prevent, avoid, or minimize impacts on resources.
5.			Additionally, the EA states that biological impacts to birds during bird breeding season will be avoided. This should be expanded to note that breeding season for the endangered Sonoran Pronghorn occurs in September and October. Measures similar to those taken during the Ajo-I Tower project to avoid construction impacts to the Sonoran Pronghorn should also be planned and initiated for this project.	USIBWC	CBP concurs. CBP is currently in consultation with the U.S. Fish and Wildlife Service (USFWS) to determine conservation measures to avoid and/or minimize impacts on Sonoran pronghorn.
6.			The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off of the construction site: *** list provided in letter***	ADEQ Air Quality	CBP has included these measures to reduce disturbance of particulate matter into the EA.

Comment Response Matrix
Revised Preliminary Draft Environmental Assessment for the
Ajo Station FOB, U.S. Border Patrol Tucson Sector, Ajo Station

#	Location		Comment	Reviewer	CBP Response	
	Page	Line				
7.		General	<p>Thank you for the opportunity to submit comments. The NPS is supportive of USBP's mission "to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the United States homeland." The NPS further understands that the purpose of the proposed action is to improve "efficiency and safety within the USBP Tucson Sector, encompassing remote border zones in the Ajo Station AOR." The NPS also understands that an operational enforcement footprint is absolutely necessary in the region given the existing high levels of illegal border activities. Identifying where to locate limited border enforcement infrastructure is key to achieving USBP's stated objective of reducing depth of intrusion to areas as close to the border as possible. Doing so will contribute greatly to the Nation's security as well as to the successful conservation of the invaluable natural and cultural resources that are found in proximity to the border. Regarding the conservation of these resources, both USBP and NPS have acknowledged the need to work together to reduce border related impacts wherever and whenever possible. Indeed USBP and NPS are already collaborating to restore some impacted areas. There are certainly numerous additional opportunities for improvement and the challenge before us is to determine how to limit the continuation of impacts while also contemplating a significant expansion of operational support infrastructure.</p>	Organ Pipe Cactus National Monument (OPCNM)	CBP appreciates your cooperation and your comments.	
8.		General	<p>The <i>Final Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project, Ajo Station's Area of Responsibility, U.S. Border Patrol Tucson Sector, December 2009</i>, is hereafter referred to as CBP 2009.</p>	OPCNM		

<p style="text-align: center;">Comment Response Matrix Draft Environmental Assessment for the AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station</p>				
#	Location	Comment	Reviewer	CBP Response
9.	General	<p>We request that the alternative of locating the FOB in Lukeville, AZ be given equal consideration as an alternative carried forward for analysis in the EA.. CBP incursion data from January 2010 to June 2011 reveal that 526% more incursions occurred in a 100 square mile area around Lukeville, AZ as compared to the same sized area in proximity of the proposed action. Additionally, throughout the region, for years there has existed a vehicle barrier along the international border with Mexico that has been very successful at preventing vehicular incursions originating from Mexico. Consequently, today the vast majority of illegal border activities, particularly those in remote wilderness areas, occur on foot. NPS monitoring results reveal a reduction in the number of foot trails in proximity of the proposed action area (Figure 1), nearing zero per kilometer. By comparison, monitoring in the southeastern region of the park, near Lukeville, detected an estimated 10 and 7 foot trails per kilometer in 2009 and 2011 respectively. Additionally, in response to the comparatively high levels of illegal cross border activities that are sustained near Lukeville, CBP is proposing additional border security infrastructure there. Therefore, the NPS submits that Lukeville should be considered as an alternate location for the proposed forward operating base (FOB).</p> <p>CBP states that its objective is to constrict the depth of intrusion as close to the international border as possible (CBP 2009). OPCNM believes that a FOB near Lukeville would accomplish this by allowing agents to deploy laterally, east and west along the border in order to deter and interdict illegal cross border activity. The benefits of considering Lukeville an alternate site are many and extend far beyond the logistical advantages of being nearer the border in an area where data indicate most illegal activities originate. In addition Lukeville has paved access, grid power, available water, fiber optic, communication infrastructure, lies outside of wilderness at the extreme easterly limits of the Sonoran pronghorn's US range.</p>	OPCNM	<p>OPCNM has participated in discussion with CBP dating to 2009 regarding the need to establish a FOB in the western portion of the Ajo Station AOR. In July 2010, the Superintendent of OPCNM approved installation of a septic system with a 32-person capacity at the proposed FOB site. In January 2011, the OPCNM Superintendent concurred in a meeting with CBP that the proposed location in the EA was the preferred FOB site. CBP agrees that locating the FOB at Lukeville would result in reduced environmental impacts form physical FOB construction compared to the preferred location in the EA; however, since Lukeville is a 30 minute drive on a paved road from the existing Ajo Station, CBP is able to adequately respond to border security issues in the Lukeville area without a new FOB. Further, construction of a FOB at Lukeville would actually position agents further from the areas currently needing increased border security compared to the existing conditions where agents must drive form the Ajo Station to the western portion of the Ajo AOR. As stated in the EA, location of the FOB at the proposed site would result in a substantial savings to the government through reduced commuting time. As the Lukeville site does not meet the basic agency need, it has been included in Section 2.5 of the EA as an alternative considered but eliminated.</p>

Comment Response Matrix				
Draft Environmental Assessment for the				
AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station				
#	Location	Comment	Reviewer	CBP Response
10.		The NPS acknowledges that many of the direct impacts of the proposed action have been disclosed, however, we believe that many of the indirect impacts of the proposed action have not been fully analyzed and disclosed in the document. Similarly, the NPS believes that the cumulative impacts to many resource topics should be analyzed in greater detail so that the full breadth of impacts are disclosed, and mitigating measures could be put in place to more effectively deal with adverse impacts to important resources. As always, the NPS would welcome the opportunity to work with CBP towards identifying resource impacts of concern and developing mitigation measures help offset adverse effects to resources.	OPCNM	The EA addresses all impacts of construction and operation of the FOB facility. It is unclear precisely what NPS means by “indirect impacts” however, if NPS intends this to include operational activities of agents within the FOB AOR, then CBP points out that those impacts on the environment were analyzed in the 2009 Ajo 1 EA to which this EA is tiered. For further information on this question see Section 1,1 and 1.4 of the EA.
11.		The NPS believes that the types of CPB interdiction activities should be quantified. The referenced CBP 2009 describes the types of CBP interdiction activities that occur in the project area. It goes on to predict that “...when the proposed towers become functional as a result of the enhanced detection capabilities, ... interdiction efforts would be more focused and off-road interdiction activities would not be expected to increase overall and would decrease over time.” Since 2002 the NPS has monitored foot and vehicle trail impacts associated with border related activities. Figure 1 reveals the results of this effort from the Growler Valley, the area where the proposed action would be implemented. Figure 1 reveals that contrary to what was anticipated in CBP 2009, and referenced in the current document, vehicle impacts have actually increased substantially in the region. Accordingly, this agency submits that the effects of these significantly higher than predicted impacts should be disclosed and mitigated in the current document. Specifically this agency is concerned about the effects of such sustained high levels of impacts on: land use, wilderness, Sonoran pronghorn and its habitat; soils and geology; and hydrologic processes.	OPCNM	Based on experience in other border locations where similar sensor tower technology has been deployed, CBP anticipates that off-road interdiction will decrease in the area covered by Ajo 1 towers. There has been an increase in interdiction efforts in the first year after the towers became operational. This increase in activity is similar to what happened after this technology was deployed in Altar Valley and Yuma Sector. The initial increase in activity was predicted in the Ajo 1 EA (Section 2.3.6). CBP expects a decrease in off road traffic over the next several years.

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12.		<p>There is currently a one acre Border Patrol camp on the premises where the proposed action would occur. Existing infrastructure at the site of the proposed action is already considerable. This agency requests working with CBP to identify a location/expansion effort that serves both the CBP and NPS missions without compromising respective agency objectives.</p> <p>The document describes construction of the proposed action, and some long term effects of an expanded forward operating base on the three acre site that will be directly impacted, however the environmental and ecological consequences of the proposed action with regard to the long term effects it would have in supporting expanded Border Patrol operations is not included in the document. The conclusion that the expanded FOB would constitute a net decrease in the number of agent hours operating in the region by eliminating the need to commute daily from the Ajo station. The referenced, CBP 2009 predicted a similar outcome of no increase and an eventual decrease in vehicular traffic levels however NPS soundscape data collected in 2009 and again in 2011 reveal traffic level estimates of 37 and 72 vehicles per day respectively. We have already discussed some of the documented increases in the levels of off-road impacts that occurred during this same time. The NPS is concerned because contrary to what was anticipated in CBP 2009, monitoring results reveal an increase in vehicle related impacts (Figure 1). The Growler Valley is the region that would be most affected by the proposed action. Every two years transects are monitored for signs of vehicle and foot traffic associated with border impacts. Figure 1 reveals that impacts from off-road vehicle use have increased in the Growler Valley over the past two years, despite low foot traffic levels and the presence of the Ajo1 SBIInet towers. The conclusion that traffic levels will decrease as a result of the proposed action should be revisited in light of the fact that similar expectations regarding decreases in traffic, stated in the reference CBP 2009, have not come to fruition. NPS data show that traffic has actually increased.</p>	OPCNM	<p>As discussed in response number 9 above, CBP has been working with NPS on placement of the FOB at the proposed location over the last two years. As explained in Section 1.4 of the EA, the proposed action will result in no change in the number of agents working in the Ajo AOR, but will result in reduced agent commuter traffic on Bates Well Road. With regard to the issue of increased operations since the installation of SBIInet towers, see the response number 11 above. CBP has not been provided copies of any technical reports prepared by NPS regarding soundscape or Growler Valley transect monitoring. Therefore, CBP cannot comment on this data at this time.</p>

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13.	General – Sonoran Pronghorn	<p>Since March 2011 the existing Border Patrol camp has been capable of supporting field operations for approximately 10 agents. The camp exists deep within the range of Sonoran pronghorn, a species that is listed as endangered under the Endangered Species Act. Sonoran pronghorn are adapted to survive in the extreme environments of the Sonoran Desert. In the US, Sonoran pronghorn currently occupy DOI and DOD lands representing about 8% of its former range. Sonoran pronghorn are reclusive, secretive animals that are known to be impacted by different types of anthropogenic disturbances. Managers have accordingly taken measures to limit Sonoran pronghorn exposure to such activities by limiting access, particularly during the fawning season which typically extends from March 15 through July 15.</p> <p>The referenced CBP 2009 states “although the proposed project would contribute to the adverse cumulative effects which threaten Sonoran pronghorn, it would not contribute to curtailment of their range” and goes on the state that “the proposed project . . . would substantially reduce the cumulative adverse effects associated with human presence”. Figure 3-1 in the draft environmental assessment (pg. 3-17) reveals that for the first time all 2011 radio-collared Sonoran pronghorn detections in the area shown occur twenty or more miles north of the international border.</p> <p>The NPS believes that the proposed action would increase the possibility of Sonoran pronghorn encounters by increasing more than three-fold the number of agents supporting the FOB and operating in the Sonoran pronghorn’s range. Efforts to minimize or mitigate detrimental effects to Sonoran pronghorn, such as Sonoran pronghorn monitoring, avoidance and mitigation have been successfully developed and implemented for years by the US Department of Defense, which also conducts diverse operations throughout the species’ range.</p> <p>The NPS offers to work with CBP to develop similar procedures in support of DHS operations. The potential for negative interactions with Sonoran pronghorn by CBP operations could be minimized by routinely determining pronghorn locations, particularly during key periods, and establishing clear procedures for conducting operations in proximity to areas where pronghorn are known to be present.</p>	OPCNM	<p>As stated in the EA, the FOB would not change the number of agents operating within the Ajo FOB AOR or within Sonoran Pronghorn habitat. As is the case with Department of Defense military operations on Barry M Goldwater Range, the USFWS has determined there is no record of CBP operations resulting in take of Sonoran pronghorn. CBP is aware of no studies which document adverse impacts of CBP operations on Sonoran pronghorn. Krausman et al. (2004) conducted research on the impacts of ground based vehicle and foot traffic and fixed and rotary winged aircraft overflights on Sonoran pronghorn. Krausman concluded that pronghorn habituated to both ground-based and overflight activities, exhibited a flight response to these human activities approximately 5 percent of the time and that impacts of these activities were not biologically significant. Unlike military training, CBP cannot schedule its interdiction activities which are directed in response to border incursions. CBP will complete Section 7 consultation with USFWS on this project and is committed to taking all necessary steps to minimize and avoid impacts of this project on all Federally listed species.</p>

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14.	General – Soils and Hydrology	<p>Figure 2 shows the summary results of soil strength measurements that were collected in Organ Pipe Cactus National Monument during January of 2011. It reveals that depth of penetration using a fixed applied force in soils is reduced by exposure to off road vehicle use. This empirically demonstrates that soils become compacted under exposure to such off road vehicle use.</p> <p>Compaction reduces soil air pockets. Such pockets facilitate water retention as well as soil to plant nutrient transfer, both vital ecosystem functions in the Sonoran desert's extreme environment. Soils are unable to quickly recover their porous properties once compacted. Such processes take millennia. Surface hydrology also plays an important ecosystem sustaining function throughout the Sonoran desert. Water and nutrients are frequently dispersed over vast areas via sheet flow. Sheet flow is often interrupted when elevated or incised linear features, such as those created by prolonged exposure to off road vehicle use, interrupt the process. The consequences of soil compaction can be frequently observed throughout the project area. Restoration of impacted areas and reduction of off road vehicle impacts both act to minimize the effects of off road vehicle use on soils and hydrological processes. The NPS requests CBP's continued collaboration in working to restore and reduce off road impacts wherever opportunities exist.</p> <p>The region's administrative roads were not designed or constructed to sustain the levels of traffic that they currently experience. The proposed action will facilitate earlier and prolonged operations in remote areas since agents will commence operations each day from the FOB. These activities will occur on administrative roads. An engineering roads study was conducted on Organ Pipe Cactus National Monument as part of the Ajo1 SBInet project, however the resulting recommendations have yet to be implemented as called for in the project's compliance. Administrative road improvements and maintenance are an essential component of the proposed action that should be adequately addressed.</p>	OPCNM	<p>CBP agrees that vehicular traffic on soils within OPCNM can result in compaction. However, under the proposed action, all traffic will be confined to the existing Bates Well Road and the 2-acre FOB construction site. Therefore, the proposed action will result in no soil compaction impacts. In March 2010, CBP executed an agreement which provided \$1,750,000 to the NPS to address impacts of CBP travel on land administered by the NPS and USFWS. To date, none of these funds have been expended. CBP is working closely with NPS to develop a maintenance program for NPS roads used by CBP for border security purposes.</p>

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15.	General - Wilderness	<p>Impacts to wilderness extend beyond the physical construction and existence of the FOB to also include the indirect effects of activities supported by the FOB. The NPS appreciates the CBP's acknowledgement that there is a need to reduce impacts to wilderness, and other DOI resources. In fact, CBP is currently engaged with DOI agencies in the project area, and working with them to identify restoration opportunities. A major component of such efforts is education about sensitive resource issues. In support of this educational need, the NPS has committed to providing an employee position that will be dedicated to developing and implementing a program to inform individuals operating throughout the project area about such issues. This agency requests that CBP field agents be certified (through such a program) that they are aware of sensitive resource issues and associated mitigation measures and BMPs within the project area, prior to deployment. This agency further requests that CBP appoint a representative at the station level who can work locally with the NPS to develop and periodically update the content of such a program.</p> <p>The existing camp, established under the Ajo 1 SBInet project, often supports detailers who are temporarily deployed to the area. Correspondingly, opportunities for land managers to convey conservation information to individuals working in the field are currently limited. If deployment of permanent staff is not possible, then establishing FOB site supervisors out of CBP's Ajo station, who in turn would have an understanding and supervisory responsibility of ensuring that conservation measures are enforced may be an alternative worthy of consideration. The NPS submits this possibility for consideration.</p>	OPCNM	<p>To address information and education of USBP agents operating within the FOB AOR, CBP will implement the following provisions:</p> <ol style="list-style-type: none"> 1. Assign a supervisor for the FOB who will have oversight of FOB operations. One of the duties of this individual will be working with the NPS and USFWS to ensure impacts of USBP operations on lands administered by these agencies are minimized, 2. Provide enhanced environmental training for persons assigned to the FOB via internet training, and 3. Provide environmental education for agents via kiosk/information display at Ajo FOB and Ajo Station. 4. Continue to provide opportunities for NPS personnel to conduct training sessions for CBP agents regarding sensitive resources

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16.	General – Cumulative Affects	<p>This agency is concerned about the cumulative effects of the past, ongoing, and proposed projects their effects on OPCNM.</p> <p>The cumulative impact of the proposed action, in conjunction with other existing and proposed landscape scale projects include: The Cabeza Prieta NWR and Organ Pipe Cactus NM vehicle barriers; the Lukeville pedestrian fence; the Ajo-1 SBInet tower project; the Ajo station expansion; Ajo station staffing expansions; the RVSS tower projects proposed within the Tohono O’odham Nation, Cabeza Prieta NWR and Organ Pipe Cactus NM; Table top telephone fiber optic project along SR 85; Sonoran pronghorn recovery team actions; environmental restoration actions associated with the Ajo-1 SBInet project and the Lukeville pedestrian fence project; CBP TACCOM infrastructure project; CBP’s tactical infrastructure maintenance and repair program, and, in the foreseeable future, the Tactical Infrastructure Maintenance and Repair (TIMR) effort.</p> <p>The NPS fully understands that an operational enforcement footprint is necessary in the region given the existing high levels of illegal border activities. Identifying where to locate limited border enforcement infrastructure is key to achieving the Department of Homeland Security’s stated objective of reducing depth of intrusion to areas as close to the border as possible. Doing so will contribute greatly to the Nation’s security as well as to the successful conservation of the invaluable natural and cultural resources that are found in proximity to the border. Ultimately, there needs to be a renewed commitment to reducing border related impacts. There are certainly numerous opportunities for improvement and the challenge before us is how to do so in an effective manner while also contemplating a significant expansion of operational support infrastructure.</p>	OPCNM	<p>The footprint of each of the CBP projects identified is relatively small (less than 20 acres) and are scattered over more than 3 million acres. In addition, the environmental impacts of each of the funded projects undertaken by CBP have been addressed in accord with the NEPA and other applicable environmental laws. Even projects completed under CBP authority which permits waiver of certain environmental laws have been analyzed and fully disclosed to the public. Since each of the projects has a unique project footprint, the impacts of one project are not additive to other projects. However, the cumulative effects of USBP operations within the Ajo Station AOR were addressed in the SBInet Ajo-1 EA to which this document is tiered.</p>
17.	1-5 23	<p>Please include an analysis of the effects of additional agents operating out of the FOB.</p>	OPCNM	<p>As stated in the EA, the number of agents working in the FOB AOR will not change once the FOB is in operation from the current situation (see Section 1.4 of the EA).</p>
18.	2-1 20-21	<p>The Proposed Action no longer includes a helipad however the size of the proposed FOB remains the same as when a helipad was included. Should the proposed FOB be reduced in size in proportion to the deleted helipad?</p>	OPCNM	<p>The proposed action is for a 3-acre FOB which is the size required to accommodate the proposed facilities.</p>
19.	2-1 28	<p>The proposed action would use solar power and this distinguishes it from the Fossil Fuels alternative. The EA claims a number of beneficial impacts due to solar power. However, p.3-21 states “installation of solar power (which) is anticipated within 5 years.” Please evaluate the impacts of using fossil fuels for a period of time prior to conversion to solar power.</p>	OPCNM	<p>The noise impacts of diesel generator operations which would provide power until solar power is installed are fully described in Section 3.11 of the EA.</p>

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20.	3-5 14	3.3 Wildernesses	OPCNM	See responses numbered 10, 11 and 12.	
21.	3-6 16	3.4 Soils	OPCNM	CBP has characterized the impacts of FOB establishment on wilderness in Section 3.3 of the EA.	
22.	3-6	3.5 Hydrology and Groundwater	OPCNM	See responses numbered 11 and 14.	
23.	3-7	3.6 Soils	OPCNM	CBP will revise the EA to include the use of any excess water from the Ajo well to support Camp Grip and Sonoran pronghorn waters as a general conservation measure listed in Section 4.3.	

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24.	3-8	7-9	NPS monitoring data shows a decline in ground water levels that has been attributed to water pumping from the aquifer, and drought (ORPI Vital Signs Report, 2011). The EA's statement that recharge exceeds withdrawal is unsubstantiated. The NPS requests that rates of ground water use and ground water levels be monitored continuously and adjusted if needed.	OPCNM	The EA will be corrected in accord with NPS data. CBP will monitor the rate of ground water use and the ground water level within the well.
25.	3-15	3 Protect ed Species	The document states: "No critical habitat has been designated for either of these species." This should in no way imply that the project's affected area does not contain habitats that are of crucial importance to protected species. Designation of critical habitat is often not done due to budgetary constraints, concerns for habitat security, lack of specific information on habitat requirements, and other factors. The Growler Valley and adjacent areas are in fact critically important to Sonoran Pronghorn. For the lesser long-nosed bat, superior foraging habitat is found east of the project area, and in areas indirectly affected by the proposed action. Roost sites are known within 10 miles of the proposed FOB. Formal designation of "critical habitat" by the USFWS for listed species is actually more the exception than the rule.	OPCNM	CBP will complete Section 7 consultation on this project and take all necessary steps to minimize and avoid any impacts to Federally listed species.
26.	3-16	12-14	The EA suggests the proposed FOB expansion will have no effects on Sonoran pronghorn during the fawning season, because no radio-collared Sonoran pronghorn have been detected within 2 miles of the site during the past 4 fawning seasons. However, the effects of the FOB will extend far beyond a 2-mile radius, as agents' range throughout the southern Growler Valley and nearby portions of the Bates, Cipriano, Growler, Agua Dulce, and Granite mountains. NPS and USFWS data document that vehicle activity off-road is widespread throughout this area. Sonoran pronghorn are found in these areas annually during fawning season. Sonoran pronghorn fawns have been observed approximately 5 miles east of the FOB annually since 2004, when hilltop visual surveys began in that area (NPS data). Since SBInet tower #302 became active and the existing camp was relocated adjacent to it, off-road vehicle activity has increased in the area where pronghorn and fawns have been observed (Figure 1). Concurrently, pronghorn presence in that area appears to have diminished (NPS data).	OPCNM	CBP has previously consulted with USFWS on the impacts of its operations on Sonoran pronghorn across the species range (22410-F-2009-0089, dated December 9, 2009). All measures designed to minimize or avoid impacts and all terms and conditions as developed under that consultation will remain unchanged with the adoption of the proposed action under this EA.

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27.	3-16	18-21	3.8 Protected Species	OPCNM	See response number 11.
28.	3-16	23-26	Sonoran Pronghorn	OPCNM	CBP is aware of no evidence that that CBP operations have influenced Sonoran pronghorn movement patterns across the species range. See also response number 13.

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29.	3-17 Figure 3-1	<p>The EA states that Figure 3-1 shows no radio-collared pronghorn have been detected within 2 miles of the FOB site since 2008. Figure 3-1 also illustrates that only 5 radio-collared pronghorn have been detected within 2 miles of the Bates Well Road and Camino del Diablo <i>anywhere</i> since 2008, as that route transects about 75 miles of Sonoran pronghorn range. NPS data show radio-telemetry locations from 1994-2001, when Sonoran pronghorn were routinely located within 2 miles of those roads (Figure 4, below). During 1994-2001, there were no FOBs along the Bates Well Rd/Camino del Diablo, and border-related traffic (including interdiction) was a small fraction of what it has been since about 2003. This comparison provides compelling evidence that current traffic levels on this road alignment, is repelling Sonoran pronghorn up to 2 miles or farther from the road. Furthermore, the Figure 3-1 shows only 20 pronghorn locations south of the Bates Well Rd/Camino del Diablo, and very few more, anywhere within 20 miles of the international border. Figure 4 shows heavy use of OPCNM and CPNWR in these areas, from 1994 to 2001. Some factors have certainly resulted in the radio-collared sample being biased towards pronghorn lingering near the semi-captive breeding site where they were born, raised, and released. However, it seems significant that even those radio-collared pronghorn that have ranged south of the Bates Well Rd/Camino del Diablo have not lingered long, before retreating northward. Similarly, the biennial aerial surveys have not detected many pronghorn near, or south of, the Bates Well Rd/Camino del Diablo. Border-related impacts, including vehicular traffic on and off legally established roads, have been much heavier in the area in question in recent years, than from 1994-2001.</p>	OPCNM	<p>The factors which influence movement of a species across its range can be numerous, complex and inter related. CBP is aware of no studies which identify the reasons for changes in Sonoran pronghorn movement patterns. In March 2010, CBP provided \$20,000 to NPS to relocate pronghorn to more suitable habitat within OPCNM and \$470,000 for relocation of pronghorn to a second, potentially more suitable range site. None of those funds have been expended to date.</p>
30.	1-4 44-45	<p>Air operations in support of CBP ground based operations frequently involve low level flight by rotary winged aircraft often operating for prolonged periods and slow speeds over expansive areas. NPS personnel have, on numerous occasions, observed rotor winged aircraft conducting such operations throughout the Growler Valley. The likelihood that such operations would increase under the proposed action is high given the increased number of field agents who in turn will require increased rotary winged aviation support. The effects of such rotary winged aircraft operations, particularly on Sonoran pronghorn, are of concern and should be assessed and disclosed.</p>	OPCNM	<p>The proposed action is not anticipated to result in any changes of USBP operations, including overflight activities.</p>

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31.	3-21	13-14	<p>The conclusion that the Proposed Action would yield beneficial or discountable effects for Sonoran pronghorn is not well-supported. While the traffic on the Bates Well Road between the FOB and SR 85 may be reduced, Figure 1 tells us that the proposed action will result in further impacts to DOI trust resources in the area of the FOB. The NPS would like to work with CBP towards a quantifiable commitment to mitigate existing levels of impacts. Benefits to Sonoran pronghorn can only truly be achieved by reducing the operational footprint their range. The NPS requests that a discussion of how and when this will occur to substantiate a conclusion of beneficial effects, or discount adverse effects.</p>	OPCNM	<p>CBP has determined the proposed action may affect, and is likely to adversely affect the Sonoran pronghorn. CBP will work with USFWS and NPS to ensure the impacts of the proposed action on listed species are minimized.</p>
32.	3-21	<div>Env Co nse que nce s</div> <div>1 3 - 1 4</div>	<p>The conclusion that the Proposed Action would yield beneficial or discountable effects for Sonoran pronghorn is not well-supported. While the traffic on the Bates Well Road between the FOB and SR 85 may be reduced, Figure 1 tells us that the proposed action will result in further impacts to DOI trust resources in the area of the FOB. The NPS would like to work with CBP towards a quantifiable commitment to mitigate existing levels of impacts. Benefits to Sonoran pronghorn can only truly be achieved by reducing the operational footprint their range. The NPS requests that a discussion of how and when this will occur to substantiate a conclusion of beneficial effects, or discount adverse effects.</p>	OPCNM	<p>See response number 31.</p>

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33.	3-21 1 4	<p>The 2011 wild US population of Sonoran pronghorn is just barely approaching the 2000 level of 99 individuals, a level that was then considered near jeopardy. In the intervening years, Sonoran pronghorn habitat, including that within a 20-mile radius of the proposed FOB, has experienced continually increasing levels of border-related activity, i.e. human traffic by foot, ATV, trucks, SUV's, and low-level aircraft. The current levels of human activity and operation of vehicles off-road is substantially greater than the levels that existed in 2001, when it was recognized the species existed near the "jeopardy" level. Since this time the number of CBP agents working in the project area has increased significantly. CBP interdiction activities routinely involve operating motor vehicles off of established legal roadways. In the Growler Valley and adjacent areas, OPCNM and CPNWR have sustained thousands of miles of unauthorized vehicle routes. In 1999-2001, the judge managing the litigation against the US, along with the subject agencies, acknowledged at that time, that existing levels of vehicle travel, on existing roads, and existing levels of human activity in the backcountry, constituted adverse impacts on Sonoran pronghorn. Today, unprecedented levels of vehicular travel is occurring on legal roads and off-road throughout the Sonoran pronghorn's US range. These levels are far in excess of anything that was imagined 10 years ago. According to these findings, the NPS believes that the proposed FOB expansion would result in an increase of such impacts, on both legal roads and in off-road areas, and consequently reduce related adverse impacts on Sonoran pronghorn. Restoration of impacted areas and reduction of off road vehicle impacts both act to minimize the effects of off road vehicle use on Sonoran pronghorn. The NPS requests CBP's continued collaboration in working to restore and reduce off-road vehicle impacts wherever opportunities exist.</p>	OPCNM	<p>According to the USFWS, prior to the increase of USBP operations in the Sonoran pronghorn range, the population ranged from 60 (in 1941) to 184 animals (in 1994). Only in one year was the population estimated to be above 200. USFWS reported a general downward trend for the population from 1992 to 2000. The carrying capacity of the current range is unknown, but according to the USFWS it is unlikely the current range is adequate to support 300 animals. The current population is within the range of normal variability in the 45 years since the species was listed as a Federally endangered species and CBP is aware of no data or studies which indicate that CBP activities have any influence on the pronghorn's population levels or fitness. See also response number 13. As previously stated, CBP provided \$1.75 million to NPS for the purpose of restoring areas impacted by off road traffic in March 2010.</p>

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34.	3-21 13-14 Environmental Concerns	<p>In 2002, the US Sonoran pronghorn population crashed to about 21-25 animals. Since then major conservation and recovery efforts have included: the establishment of a semi-captive breeding program; provision of supplemental food, water and forage enhancements; area closures; etc. From 2002 to 2004, the US wild population more than doubled, from 21 to about 58 (Figure 3). Yet most recovery efforts were not effect until after 2004. Since 2004, the US population has increased by only small annual increments, despite considerable conservation and recovery efforts.</p> <p>A likely answer is that much of the remaining US Sonoran pronghorn range has experienced increasing levels of vehicle activity off-road, and other human disturbance. Inventory and monitoring results show that vehicle activity off-road throughout the Sonoran pronghorn's US range has increased greatly since 2004 (Figure 1), coinciding with the weak recovery of the species. This has occurred despite augmentation of the wild population with pronghorn from the semi-captive breeding program, which began in 2006 (Figure 3) and other recovery actions. Data also show that the wild US Sonoran pronghorn population has shifted its occupancy pattern within its current range, abandoning or greatly reducing use of vast areas of suitable, high quality habitat, e.g. the Ajo Valley and more recently the Growler Valley. Such areas are heavily impacted by vehicle activity off-road. The consequence is a continued range reduction the species can ill afford. Given what is known about Sonoran pronghorn response to approach by humans and vehicles on the ground, and habitat impacts by vehicles operating off-road, it is likely the vehicle activity off-road and inhibited pronghorn population recovery are related. Restoration of impacted areas and reduction of off road vehicle impacts both act to minimize the effects of off road vehicle use on Sonoran pronghorn. The NPS requests CBP's continued collaboration in working to restore and reduce off-road vehicle impacts wherever opportunities exist.</p>	OPCNM	<p>CBP is strongly committed to Sonoran pronghorn conservation. In the last 3 years, CBP has provided approximately \$6 million to NPS and USFWS to support Sonoran pronghorn conservation and habitat restoration. These funds have been provided for establishment of pronghorn waters, aerial survey, establishment of a second pronghorn population, establishment of forage enhancement plots, and a study of human impacts on pronghorn. In addition CBP has spent substantial funds to ensure its actions have not adversely impacted the species. For example, CBP spent more than \$550,000 on environmental monitors to ensure that construction of SBInet towers has no impact on Sonoran pronghorn. CBP will take any appropriate measures to ensure the any impacts of this project on listed species are minimized. CBP continues to take all necessary steps to ensure any impacts of its operations on the species are minimized. By comparison, in 2007 through 2009, NPS reported to USFWS total expenditures on pronghorn conservation ranging from \$35,000 to \$72,000 per year.</p>
35.	3-25	<p>Given the proximity of prehistoric sites to the proposed FOB expansion area, it is likely they will be adversely affected by future off-road vehicle activity emanating from the FOB. In a similar situation, prehistoric sites adjacent to the road from the international boundary to SBInet tower 310 have been adversely affected by off-road driving. Reducing the levels of off road driving would have a net benefit to the impacts to cultural resources.</p>	OPCNM	<p>CBP is not aware of any impacts of USBP operations on prehistoric sites and requests that NPS furnish this information to CBP so these impacts can be addressed.</p>

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			Reviewer	
36.	General	A description of the various entities that will use the FOB is needed. Borstar, Ajo Station, Yuma. How will the FOB support the various CBP entities operating in the region?	OPCNM	In addition to Ajo personnel, the FOB may be utilized by Wellton agents and various entities within CBP such as Search and Rescue (BORSTAR), Tactical (BORTAC), Mobile Response Team (MRT) and intelligence units. The FOB may also be utilized by DOI law enforcement during special operations
37.	3-23 17 2 4 3 9 -4 1	<p>Please consider these editorial comments: The brief cultural history outlined in lines 17-24 is not accurate for this location. The periods of Pioneer, Colonial, Sedentary, and Classic refers specifically only to the Hohokam and not to the other traditions present in the western Papagueria—the Patayan and Trincheras cultures. Lines 39-41: Historic Bates Well Road was never recorded as site AZ Z:13:134(ASM) by Northland during previous cultural resource surveys—the number was not used at ASM and therefore all discussion using that site number should be removed from the cultural report and the EA, both in Section 3.9 and elsewhere in the EA. According to Johana Huitra at Northland, the site number will be turned back over to ASM and re-assigned to another site. The report cited as ‘Hopkins 2006’ was apparently a draft survey report that was never finalized and that needs to be made clear in the 2011 cultural survey report by Tina Hart for this project. Lines 45-46: Therefore, all mention of site number AZ Z:13:134(ASM) should be edited out of both the survey report and the EA for this project. Bates Well Road is considered a historic road alignment. It provided access to El Camino del Diablo from the northeast, but to date, the historic alignment of Bates Well Road remains unrecorded and unevaluated for eligibility to the National Register of Historic Places. Since ORPI considers Bates Well Road to be eligible without it being officially recorded at ASM; and also nearby site AZ Y:16:32(ASM) to be eligible; and we agree that the 14 isolates are not eligible, we concur with a finding of ‘No Adverse Effect’ for this project.</p>	OPCNM	Revised as requested.
38.	3-24 2 6	Site number AZ Z:13:134(ASM) should be removed from Table 3-3; however, the ‘historic alignment of Bates Well Road’ should remain in the table, as the road is considered a historic resource and the assessment of effect on that alignment should be included in the archeological report and the EA. We concur with a finding of ‘No Adverse Effect’ to the historic alignment, but the potential for future adverse effects to the viewshed and the historic character of this road does exist.	OPCNM	Revised as requested.

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39.		<p>Thirteen emails were received from a Sierra Club email address (information@sierraclub.org). Many of the emails commented on fencing, operations, and other issues which are beyond the scope of this project. The substantive comments from these emails are listed below.</p> <p>1) I ask that you please halt plans to expand the patrol base located in Organ Pipe Cactus National Monument. Tripling the size of the temporary base would have significant adverse effects on the surrounding wilderness, not to mention the adverse effects due to significantly higher patrolling in the area. Besides, because far fewer migrants have crossed in the Organ Pipe area in recent years, such a base expansion is unnecessary.</p> <p>2) We are pleased that the illegals are not using the area of Organ Pipe National Monument as frequently as in the past. The traffic is down dramatically! Yeah! Therefore, expansion of the base is not needed!! Any expansion would probably just lead to the smugglers making more wildcat trails and roads through the Monument. Let's show concern for the environment!</p> <p>3) I am concerned that this case here is an example of the M.O.A. not being followed, and the land managers and the land are being negatively impacted.</p> <p>4) Common sense must be used in all our strategies! Please consider the topography, wildlife, flood zones , needs of citizens, etc. when implementing border security!</p> <p>5) The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas. The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness. Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed.</p> <p>6) This base, from which 24-hour patrols across these public lands will be operated, will be located well north of the actual border and will affect many sensitive areas, including the national monument, national wildlife refuge, and designated wilderness areas.</p>	<p>Sierra Club</p> <p>Jonathan Amgott (1)</p> <p>Barbara Cain (2)</p> <p>Merlin Dilley (3)</p> <p>Thomas Nieland (4)</p> <p>Michael @ Kathleen Shores (5)</p> <p>Amy Catalino (6)</p>	<p>1) CBP appreciates this comment; however, the FOB will allow for fewer impacts on the OPCNM and wilderness areas, as described in Sections 1.4 and 3.3 of the EA. The necessity of the expansion is discussed in Section 1.2</p> <p>2) Please see response above for comment from Mr. Amgott (1).</p> <p>3) The land managers at OPCNM and CPNWR were intimately involved with the planning of this project. The location of the alternatives were selected by the land managers at the OPCNM and CPNWR.</p> <p>4) Please refer to the EA for analyses of these resources in sections 3.4 (Geology and Soils), 3.7 (Wildlife and Aquatic Resources), 3.14 (Socioeconomics) and 3.15 (Environmental Justice and Protection of Children). Impacts on floodplains were not discussed, because the proposed location is not within a mapped floodzone.</p> <p>5) Please see response above for comment from Mr. Amgott (1).</p>

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39. cont		<p>6) (continued) The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas.</p> <p>7) Expansion of the base from 1 to 3 acres would cause deterioration of the wilderness character of the area. Expansion of the base would result in more roads and off road vehicular traffic. Cross border traffic of undocumented migrants has decreased significantly in recent years in this area making a larger base unnecessary. I spent over a week in southern.</p> <p>8) I do not support the idea of a 3 acre patrol base in Organ Pipe Cactus National Monument. This is unnecessary and will have a very bad impact on the wilderness of that area. There has also been an extreme decrease of migration through those regions which makes it even more clear that this is unnecessary.</p> <p>9) Please do not further damage the wilderness va by increasing the size of the temporary base.</p> <p>10) Please, protect the wildlife refuge and the wilderness lands within it.</p> <p>11) This action is not really needed. The impact to the landscape would be severe. The patrols should be concentrated along the border itself. The degradation of the area by this action would leave a permanent impact.</p> <p>12) The base should not be expanded from the current temporary one-acre footprint. An increase would significantly degrade the wilderness character of the area and lead to an increase in wildcat roads and off-road vehicular impact on the wilderness.</p> <p>13) The area is too far north of the border line to be effective and too close to the sensitive wildlife habitat found in the national monument, wildlife refuge and wilderness areas. My friends and I frequently travel to southern Arizona to view wildlife, especially birds. The amazing variety of wildlife in the area is worth the long trip from California, and it certainly deserves to be protected rather than overlaid with roads and OHV damage. Given the recent decrease in cross-border traffic, a base expansion there cannot be justified.</p>	<p>Naomi Cohen (7)</p> <p>Cicily Cooper (8)</p> <p>Roy Emrick (9)</p> <p>Tom Finholt (10)</p> <p>Robert Kee (11)</p> <p>Kenneth Kennon (12)</p> <p>Vicki Lee (13)</p>

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39	co nt	<p>14) The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas. The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness.</p> <p>15) The wilderness character of Cabeza Prieta and backcountry ORPI must be preserved,</p> <p>16) Having a larger presence and bigger footprint would only hurt the natural environment more. Fewer illegals are entering the area so there is no need to expand the border patrol base that is already present.</p> <p>17) The BP base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas. Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed. Please do not contribute to the degradation of this fragile ecosystem!</p> <p>18) Expanding the current base would not make a significant contribution to border security, but would result in unacceptable harm to the surrounding wilderness. The decline of cross-border traffic in the Organ Pipe area in recent years makes expansion of this base unnecessary. The enjoyment of being in nature is seriously compromised by highly visible border security infrastructure and patrol activity in birding areas. I am also aware of the damage being done to unique ecosystems all along the border in the name of security, such as the damage done by off-road vehicles in sensitive areas.</p>	<p>Sarah Loftus (14)</p> <p>Alex and Carole Mintzer (15)</p> <p>Carolyn Morley (16)</p> <p>Brit Rosso (17)</p> <p>Suzanne Williams (18)</p>	<p>14) Please see response above for comment from Mr. Amgott (1)</p> <p>15) CBP agrees with your comment. Please see response above for comment from Ms. Catalino (6).</p> <p>16) Please see response above for comment from Mr. Amgott (1).</p> <p>17) Please see response above for comment from Mr. Amgott (1).</p> <p>18) Please see response above for comment from Mr. Amgott (1). Impacts to visual resources were also analyzed in the EA in Section 3.3. Large portions of the CPNWR and OPCNM are closed to visitor use due to border security issues. It is possible that with improved CBP security, the closed area may once again open to visitors.</p>
40.		<p>“USBP agents need to be deployed CLOSER TO THE INTERNATIONAL BORDER and remote western zones of the Ajo station to improve efficiency and effectiveness during work shifts.”</p> <p>1. Your proposed location is too far north. It should be on the international boundary directly south of the proposed location. The best alternative to that plan would be to build the facility at Lukeville</p>	Fred Goodsell	CBP considered a FOB in Lukeville at the request of the NPS and USFWS; however, this alternative was eliminated and discussed in Section 2.5 of the EA.
41.		2. I consider the alternatives offered totally insufficient.	Fred Goodsell	CBP appreciates your comment; however, the alternative locations were discussed and identified as a collaborative effort with CBP, OPCNM, and CPNWR. The alternatives are adequate for NEPA analyses.

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42.		3. I first drove the entire Camino del Diablo in 1970. I have been driving it multiple times per year since 2001. Your FONSI, to be polite, is inappropriate. What "human environment?" There was no "Human environment" out there until this mess. As to the natural environment just how do you think you can introduce 16 - 32 people into the area and have them do their jobs without tremendous impact to the natural environment. The area shown on the map as the area to be covered by this station is all Wilderness. Your agents won't be walking quietly across the desert.	Fred Goodsell	CBP appreciates your comment; however, the human environment collectively incorporates aesthetics, wilderness characters, land use, socioeconomics, and cultural resources. The FOB will allow for fewer impacts on the OPCNM, CPNWR, and wilderness areas, as described in Sections 1.4 and 3.3 of the EA.
43.		The entire EA is a farce and anyone reading it knows it is. It shows that you can not be trusted with your plans so you loose the trust of the general public. While out there doing construction and use you will be in violation of multiple federal laws. I can't list them all but they include the Wilderness Act, Endangered Species Act, Historical and Cultural preservation acts, clean air acts and clean water acts.	Fred Goodsell	CBP appreciates your comment; however, this EA identifies how CBP is currently and will continue to comply with the Wilderness Act (Section 3.3), the Endangered Species Act (Section 3.8) including ongoing Formal Section 7 consultation with USFWS, National Historic Preservation Act (Section 3.9), Clean Air Act (Section 3.10), and Clean Water Act (sections 3.4, 3.5, and 3.13).
44.		ps. The local BP administration and officers do not want or need this facility. Please drop it.	Fred Goodsell	CBP appreciates your comment; however, the local USBP Ajo Station has had been intimately involved in the planning of this facility.
45.		Despite having commented on several previous Environmental Assessments in this sector, my organization – nor any other conservation group, public interest group, or private citizen to my knowledge – was involved in scoping this decision and Environmental Assessment.	National Parks Conservation Association (NPCA)	"Scoping" as defined by the Council on Environmental Quality regulations is only required in the preparation of an environmental impact statement. Nonetheless, CBP did publish notice of its intent to prepare this environmental assessment in the Arizona Daily Star and the Ajo Copper News. Several comments were received by CBP in response to this solicitation. In addition, letters soliciting input were sent to several key state and federal agencies.

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46.		<p>For instance, if the reason for the Forward Operating Base (FOB) is because it takes a certain amount of time for staff to reach this region when deployed from Ajo, then one obvious alternative that should have been identified during scoping is simply improving the road. That's not to say that we necessarily endorse this alternative, but it should certainly be looked at, and might prove to be cheaper and have less impact on the environment.</p> <p>Likewise, considering this facility's need in the larger context of your strategy and operations is lacking, and would have been mentioned in the scoping process. Is this the place you should be placing your resources? Would it be more effective to spend the money and personnel time closer to the actual border to prevent border crossings or intercept border crossers closer to where they enter our country? There has been some concern that backcountry interception has been emphasized over the vast amount of illegal traffic that occurs at ports of entry, such as Lukeville. Which makes us wonder why you are not planning a FOB at Lukeville, which seems both needed and useful, while proposing this isolated facility rather far from the border?</p>	NPCA	Improvement of the access road to the proposed FOB site is included in section 2.5 of the final EA as an alternative considered but eliminated because it does not meet CBP needs.
47.		<p>The current FOB at Bates Well uses one acre, and yet this Environmental Assessment asks for three acres, stating that the footprint will be two acres. Why the 150% increase? Why the false assumption that having permission to use three acres will only result in a two-acre footprint? This is a cherish national monument, upon which development should only be done after careful, careful consideration. The need for the size of this facility has not been established in this document.</p>	NPCA	The purpose and need for the FOB in the proposed location is provided in Section 1.2 of the EA. The Lukeville FOB alternative was considered, but eliminated when the location was determined to provide little tactical advantage. See the discussion of the Lukeville FOB in Section 2.5.
48.		<p>In fact, it seems obvious that a proposal for a three-acre, staffed law enforcement facility inside a national monument would require the careful consideration that only comes with the full NEPA process. We ask that you continue your deliberations by preparing a draft environmental impact statement, one that 1) better involves the interested public, 2) looks seriously at the full range of alternatives including a smaller facility, road improvement instead of a forward operating base in this vicinity, other locations for the base, and/or re-allocating these resources to interdictions more closely along the border or at ports of entry, and 3) includes in more detail and substance the impacts that your proposed facility would have on the natural and cultural resources of Organ Pipe Cactus National Monument as well as on wildlife and wildlife habitat as a component of your total strategy and operations in the area.</p>	NPCA	The current tactical camp impacts 1 acre. The impacts on this 1 acre were assessed in the SBInet Ajo-1 EA. This one acre will continue to be impacted. The new facility will impact a total of 3 acres (1 acre, currently home to the tactical camp, and 2 additional acres adjacent). The one acre that the tactical camp currently occupies will be reused.
49.				CBP has followed appropriate NEPA guidance for preparation of this environmental document, including an appropriate level of public involvement. A full range of reasonable alternatives has been analyzed in this EA. The best long term solution for protection of natural and cultural resources in OPCNM is to ensure border security. Placement of the FOB in the proposed location is a key element of achieving the required border security which will again enable OPCNM to reduce restrictions which have been in place on visitor use for the last several years.

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50.		The construction of an advance law enforcement base in a remote section of the monument deserves the scrutiny and consideration that only comes when NEPA, ESA, and other environmental and cultural protection laws are followed. I urge that this occur before plans to construct the base are finalized. The draft EA is insufficient, as expressed by NPCA comments and the comments of other organizations, and certainly doesn't warrant a finding of FONSI. Please continue with the process and do a full environmental impact statement.	Kevin Dahl (NPCA)	Impacts as described in the EA are sufficient under the guidance of NEPA. CBP is currently in formal Endangered Species Act, Section 7 consultation with USFWS regarding impacts on Sonoran pronghorn from this project. The Section 7 process will be completed prior to the FONSI being finalized and signed. CBP will also complete compliance with the National Historic Preservation Act and any other applicable law prior to initiation of construction.
51.		It is inappropriate to tier the analysis for the Forward Operating Base (FOB) expansion project to the 2009 analysis because the 2009 <i>SBI</i> Finding of No Significant Impact (FONSI) and Environmental Assessment (EA) did not adequately analyze the impacts of off-road vehicle use and travel by U.S. Border Patrol agents and the expected benefits of the 2009 FONSI and EA for the <i>SBI</i> project have not occurred.	Center for Biological Diversity (CBD)	See responses numbered 11 and 26.
52.		This is a critical point given that the current project seeks to triple the footprint of the FOB, yet there is no analysis of the impacts of a three-fold increase in the number of U.S. Border Patrol agents who could all potentially engage in off-road travel for interdiction or other purposes.	CBD	As stated in the EA (Section 1.4), the FOB would not change the number of agents operating within the Ajo Station or within area of responsibility of the FOB.
53.		The EA for the FOB expansion project erroneously states that the 2009 <i>SBI</i> Ajo-1 Tower Project EA addresses the impacts of U.S. Border Patrol activities away from the Ajo Station and the FOB. This is not correct. Therefore, the current EA must address the impacts of U.S. Border Patrol activities, especially off-road motorized travel during interdiction activities.	CBD	CBP appreciates your comment; however, Section 2.3.6 of the 2009 <i>SBI</i> Ajo-1 EA contains a 10-page discussion of Border Patrol operations within the Ajo Station AOR.
54.		This project will increase the number of U.S. Border Patrol agents on the ground on both the Cabeza Prieta National Wildlife Refuge (CPNWR) and the Organ Pipe Cactus National Monument (OPCNM).	CBD	CBP appreciates your comment; however, as stated in the EA (Section 1.4), the FOB would not change the number of agents operating within the Ajo Station or within area of responsibility of the FOB.

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55.		<p>Unfortunately, "CBV foot traffic and off-road vehicle activity and required Federal law enforcement response have been and continue to be significant threats to the pronghorn and its habitat[.]"³ FWS has not analyzed the impacts from U.S. Border Patrol agents located at the FOB nor the amount of off-road vehicle activity associated with the number of agents on the ground. For this project expansion, the FWS and U.S. Department of Homeland Security must analyze the existing impacts of current off-road vehicle traffic by U.S. Border Patrol agents as well as the anticipated increase in those impacts by an expansion of this FOB.</p>	CBD	<p>When CBP completed the Ajo 1 EA, the agency consulted with FWS on CBP operations across the range of the Sonoran pronghorn (see FWS BO number SE 22410-F-2009-0089, dated December 12, 2009).</p>
56.		<p>Unfortunately, the highest level of personnel stationed at the expanded FOB will take place from April through September (24-32 personnel), 7 which corresponds to the pronghorn fawning period, a time during which impacts from motorized and other uses should be minimized.</p> <p>It appears as though the impacts from the FOB expansion on Sonoran pronghorn have not been adequately analyzed, rendering this draft FONSI and EA inadequate.</p> <p>Formal consultation under Section 7 of the Endangered Species Act is warranted for this EA, especially in light of the inconsistent statements of fact regarding the intensity of enforcement in the 2009 EA and the current EA, which render previous FWS opinions unreliable.</p>	CBD	<p>As stated in the EA, the FOB would not change the number of agents currently operating within the Ajo Station or within Sonoran Pronghorn habitat. CBP is currently in formal Section 7 consultation with USFWS regarding impacts of this project on Sonoran Pronghorn. Section 7 consultation will be completed before the FONSI is signed.</p>

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57.		<p>Unfortunately, it appears as if U.S. Border Patrol off-road vehicle traffic associated with interdiction activities has not decreased on the CPNWR and reporting is spotty at best. We ask the U.S. Customs and Border Patrol and Department of Homeland Security to review the U.S. Department of Interior, July 2011 report entitled Vehicle Trails Associated with Illegal Border Patrol Activities on Cabeza National Wildlife Refuge.</p> <p>Therefore, a significant assumption upon which the original 2009 <i>SBI_{net}</i> analysis was premised has proven invalid, but this is not addressed in the current analysis for the expansion of the FOB.</p> <p>The 2009 <i>SBI_{net}</i> FONSI and EA describe U.S. Border Patrol agent responses using vehicles as taking place only “when necessary” (at page 57) and only in compliance with the 2006 Memorandum of Understanding (MOU) between the Department of Homeland Security, U.S. Forest Service, U.S. FWS, and Department of Interior. However, the actual practice appears to be, in most cases, with the use of a motorized, wheeled vehicle and the MOU is not being complied with.</p> <p>Tiering the FONSI and EA for the current project to expand the FOB to the 2009 FONSI and EA requires the agency to rely upon information that is known to be incorrect and/or invalid. Tiering to the 2009 <i>SBI_{net}</i> Ajo-1 Tower Project analysis and failing to include any reference to continued, significant impacts from cross-country travel by U.S. Border Patrol agents renders this current analysis completely inadequate and invalid.</p>	CBD	See responses number 11 and 26.
58.		<p>Documentation of Damage The lack of a decrease in off-road vehicle traffic is despite the statement in the 2009 FONSI and EA that “vehicle seizures decreased from 456 in (FY2004) to 248 (FY2008) [because of the vehicle barrier at the border] and the construction of the <i>SBI_{net}</i> Ajo-1 Tower Project “would enhance USBP agents’ enforcement efficiency, and thus compress[] the primary enforcement footprint closer to the U.S./Mexico border.”²⁴</p>	CBD	CBP agrees that the vehicle barrier along CPNWR and OPCNM have been successful in reducing vehicle incursions into those areas. Unfortunately, the number of apprehensions have increased substantially in both areas in the year since the <i>SBI_{net}</i> towers became operational. This initial increase in apprehensions is similar to what CBP experienced in other locations were similar technology was deployed and was predicted for these areas in the 2009 EA.

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59.			The EA suggests that there will be no change in enforcement activity as a result of the FOB expansion, yet with a reduction in vehicle trips between the Ajo Station and the FOB juxtaposed with 15,000 patrol trips in the AOR it seems clear that there will be an increase in the intensity of patrols in the western portion of the AOR. The EA for the FOB expansion project does not analyze the impacts of this increase, which are likely to be significant, especially for the endangered Sonoran pronghorn. Formal consultation with FWS under Section 7 of the Endangered Species Act is warranted for this project.	CBD	As stated in the EA, the FOB would not change the number of agents currently operating within the Ajo Station or within Sonoran Pronghorn habitat. CBP is currently in formal Section 7 consultation with USFWS regarding impacts of this project on Sonoran Pronghorn. Section 7 consultation will be completed before the FONSI is signed.
60.			In the 2009 FONSI and EA for the SBI net Ajo-1 Tower Project, the intent of the "tolerance to the depth of intrusion" was to be "as close to the international border as practical" (at page 52). However, during the Center's tour of the CPNWR, we found far more off-road vehicle tracks, presumably from U.S. Border Patrol interdiction efforts, on the north side of El Camino del Diablo than on the south side of the road. A walking tour of the south side of El Camino del Diablo did not reveal the extent of damage from off-road vehicle use that was found on the north side. This would appear to be in conflict with the "tolerance to depth of intrusion" information that was made available in the 2009 FONSI and EA, and to which this EA is tiered.	CBD	CBP continues to focus its interdiction as close to the border as practicable. Due to terrain, personal availability, and actionable intelligence, the distance from the border at which the most effective interdiction can be executed is variable.
61.			In the 2009 FONSI and EA for the SBI net Ajo-1 Tower Project, the septic system is described with a capacity for "up to 10 people" (at page 51). Yet in the current DEA for the Ajo FOB expansion project, the septic system is described (at page 2-6) as a "32-person, deep-discharge septic system [] installed as part of the agreement with OPCNM and USFWS when the camp moved from the Bates Well site to the current location." It is not clear how the septic system described in the 2009 FONSI and EA will accommodate a three-fold increase in use. It is not clear when the septic system was expanded to a 32-person deep discharge unit. It is also not clear where the NEPA documentation for the three-fold increase in septic system capacity is, or when the NEPA process for said increase occurred. This information must be made publicly available immediately.	CBD	A letter dated July 7, 2010, was received by CBP from OPCNM (signed by Lee Baiza, Superintendent) approving the installation of a 32-person capacity deep-discharge septic system at the tactical camp. This letter will be included in the final EA as part of Appendix A.

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62.		Unfortunately, the Draft EA does not sufficiently provide appropriate analysis of major affected elements, including air, water, wildlife, and wilderness resources. A Finding of No Significant Impact (FONSI) is unwarranted and inappropriate.	Arizona Wilderness Coalition, Defenders of Wildlife, Sierra Club, and Sky Island Alliance (Joint comments)	CBP respectfully disagrees with your opinion. This EA identifies how CBP is currently and will continue to comply with the Clean Air Act (Section 3.10), Clean Water Act (sections 3.4, 3.5, and 3.13), the Endangered Species Act (Section 3.8) including ongoing Formal Section 7 consultation with USFWS, and the Wilderness Act (Section 3.3). CBP has determined that a FONSI is the appropriate decision document for this project.
63.		The SBInet Ajo-1 Tower Project EA of 2009 promised to “reduce the enforcement footprint” in the region that includes OPCNM and CPNWR, and to move “USBP traffic closer to the border.” Since then, USBP vehicle traffic and associated impacts emanating from the FOB location remain intense. Increasing the capacity and footprint of the FOB would only exacerbate these impacts, and would act in contradiction to the intent of the SBInet Ajo-1 Tower Project.	Joint comments	See response number 11.
64.		After the construction of the SBInet infrastructure, it was our assumption and was clearly stated by Border Patrol that enforcement efforts would be “moving USBP traffic closer to the border.” ³ We request clarification on how the Ajo FOB reconciles with facts and projections provided by the SBInet Ajo-1 Final EA in this regard.	Joint comments	See response number 60.
65.		With a reduction in vehicle trips between the FOB and the Ajo Station, but retention of 15,000 patrol trips within the AOR, it is clear that intensities of patrol will increase in the western portion of AOR. No analysis of this shift in patrol intensities and time is reflected in the draft EA though there are large consequences to such shifts. The area west of the FOB includes important habitat for species such as the endangered Sonoran pronghorn, though the draft EA does not disclose or analyze the potential for additional time, miles, and trips that would emanate from the FOB westward.	Joint comments	As stated in the EA, the FOB would not change the number of agents currently operating within the Ajo Station or within Sonoran Pronghorn habitat. CBP is currently in formal Section 7 consultation with USFWS regarding impacts of this project on Sonoran Pronghorn. Section 7 consultation will be completed before the FONSI is signed.
66.		As such, formal consultation under Section 7 of the Endangered Species Act is warranted for this draft EA. Given the inconsistency of statements facts regarding enforcement intensity shifts between the 2009 EA and this draft EA, which increases patrol intensity within occupied pronghorn habitat, Border Patrol cannot rely on previous opinions provided by USFWS.	Joint comments	CBP is currently in formal Section 7 consultation with USFWS regarding impacts of this project on Sonoran Pronghorn. Section 7 consultation will be completed before the FONSI is signed.

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67.			The EA for FOB expansion makes no mention of facilities and capabilities directed at use of horse patrols within designated wilderness and sensitive habitat areas. Any apparatus aimed at patrolling these areas should focus primarily on horse patrols for maximum protection of wilderness resources. Horse patrol units within the Border Patrol have a long history of success and provided agents with unique capabilities for patrol and interdiction. Does the expanded FOB include infrastructure for the eminence of stock during appropriate times of year?	Joint comments	The FOB will include horse stabling facilities and CBP will continue to use horse patrol throughout the AOR of the proposed FOB.
68.			The draft EA also contradicts previous plans by the Border Patrol to focus enforcement efforts at the border in this exceptionally fragile region rather than a primary strategy of interdiction efforts north of Bates Well and the Camino del Diablo Roads. To expand the FOB while unauthorized crossing numbers are exceptionally low would unnecessarily endanger the fragile and precious resources of the OPCNM and CPNWR.	Joint comments	CBP Ajo Station, OPCNM and CPNWR have agreed that the preferred location provides the most tactical advantage. See also response number 11.
69.			I have personally witnessed destruction to cryptogamic soils by off road vehicle use. At a quick glance the soil may not be noticed but when one looks closely, it is every where. These soils take decades to form and are imperative to desert life as they provide a healthy environment.	Laura Chamberlin	As stated in Section 1.4, the proposed action will result in no change to border patrol operations, therefore, no changes to cryptogamic soils form the proposed action are anticipated.
70.			The endangered Sonoran Pronghorn and The Lesser Long-Nosed bats are just a few of the animals that need our attention. If the off road presence continues with no regard to their lively hood than it pains me to think of their future.	Laura Chamberlin	CBP is currently in formal Endangered Species Act, Section 7 consultation with USFWS regarding impacts on Sonoran pronghorn from this project. This consultation will be completed prior to construction initiation.
71.			My experience at Cabeza Prieta leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge.	Laura Chamberlin	CBP, OPCNM and CPNWR are working together to create an educational liaison to be responsible for environmental, wildlife and botanical education for agents working with the Refuge and Monument or stationed at the FOB.
72.			I ask that the Department of Homeland Security take another look at the need for this project and develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.	Laura Chamberlin	CBP has determined that a full range of alternatives have been analyzed and the proposed action offers the best tactical advantage for USBP.

Comment Response Matrix Draft Environmental Assessment for the AJO FOB, U.S. Border Patrol Tucson Sector, Ajo Station				
#	Location		Comment	Reviewer
				CBP Response
73.			I adopt and incorporate by reference the comments submitted by the Center for Biological Diversity.	Keri Dixon Thank you for your comment. Please see above in this matrix for the CBD comments and responses.
74.			My first hand experiences on the Refuge in the area of the Forward Operating Base leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge. I have many friends who used to visit the refuge regularly but who no longer visit at all because of the excessive number of Border Patrol agents driving around 24 hours a day. Not one of the people I know has ever had a negative experience with "cross border violators" and it seems as if "CBV" numbers are significantly down for this area.	Keri Dixon CBP, OPCNM and CPNWR are working together to create an educational liaison to be responsible for environmental, wildlife and botanical education for agents working with the Refuge and Monument or stationed at the FOB.
75.			I personally visited the refuge and monument less often in the past few years because of the excessive noise, dust and degraded landscapes. However, I miss the picturesque views and wildlife experiences I used to have when there was less border patrol presence.	Keri Dixon CBP plans to document and mitigate for these impacts as part of the re-initiation of consultation with USFWS on the Ajo-1 Biological Opinion.
76.			I sincerely ask that the Department of Homeland Security take another look at the need for this project. I urge you to develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.	Keri Dixon CBP has determined that a full range of alternatives have been analyzed and the proposed action offers the best tactical advantage for USBP.
77.			I adopt and incorporate by reference the comments submitted by the Center for Biological Diversity.	Cyndi Tuell Thank you for your comment. Please see above in this matrix for the CBD comments and responses.
78.			My first hand experiences on the Refuge in the area of the Forward Operating Base leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge. I have many friends who used to visit the refuge regularly but who no longer visit at all because of the excessive number of Border Patrol agents driving around 24 hours a day. Not one of the people I know has ever had a negative experience with "cross border violators" and it seems as if "CBV" numbers are significantly down for this area.	Cyndi Tuell CBP, OPCNM and CPNWR are working together to create an educational liaison to be responsible for environmental, wildlife and botanical education for agents working with the Refuge and Monument or stationed at the FOB.
79.			I ask that the Department of Homeland Security take another look at the need for this project and develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.	Cyndi Tuell CBP has determined that a full range of alternatives have been analyzed and the proposed action offers the best tactical advantage for USBP.



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

REGION IV, 9140 E. 28TH ST., YUMA, AZ 85365

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August 29, 2011

Mr. David Guzewich
U.S. Customs and Border Protection
Facilities Management and Engineering
1301 Constitution Ave. NW, Suite B-155
Washington, D.C. 20229

Re: Draft Environmental Assessment for a Proposed Ajo Forward Operating Base, Ajo Border Patrol Station Area of Responsibility, U.S. Border Patrol, Tucson Sector

Dear Mr. Guzewich:

The Arizona Game and Fish Department (Department) has reviewed the above-referenced Draft Environmental Assessment (DEA) for the proposed Ajo forward operating base. The following comments are provided for your consideration.

The Department is an active participant on the Sonoran Pronghorn Recovery Team and in the recovery efforts for this endangered subspecies. The Department's comments and input on this project for the pronghorn will be through the Recovery Team and U.S. Fish and Wildlife Service. This comment letter is limited to impacts to wildlife excluding the Sonoran pronghorn.

The Proposed Action is to expand the existing 1 acre tactical base located on Bates Well Road at the western boundary of Organ Pipe Cactus National Monument (OPCNM) to a 3 acre forward operating base (FOB). The second alternative is to create a new FOB along Bates Well Road at the eastern boundary of Cabeza Prieta National Wildlife Refuge (CPNWR). These two alternatives will use solar panels to generate electricity. The third alternative is to use fossil fuel generators instead of solar arrays to produce electricity. Because the Proposed Action will have a smaller footprint of new disturbance than the CPNWR alternative and the solar panels will reduce noise levels, reduce the chance of a hazardous materials incident and reduce traffic on Bates Well Road, the Department prefers the Proposed Action.

Solar panels will have fewer impacts to wildlife than will fossil fuel generators. For this reason the Department recommends converting to solar power as soon as possible.

With the successful implementation of proposed best management practices, the Department does not anticipate any significant adverse impacts to wildlife species resulting from the approval of this proposed project.

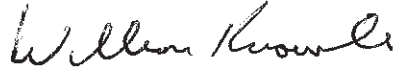
David Guzewich

August 29, 2011

2

Thank you for the opportunity to provide comments on this DEA. If you have any questions, please contact me at 928-341-4047.

Sincerely,



William Knowles

Habitat Specialist, Region IV

cc: Josh Avey, Chief, Habitat Branch
Laura Canaca, PEP Supervisor, Habitat Branch
Leonard Ordway, Assistant Director, Field Operations Division
Troy Smith, Habitat Program Manager, Region IV

AGFD #M11-08084901

From: Wendy S. LeStarge <LeStarge.Wendy@azdeq.gov>
To: GUZEWICH, DAVID C
Cc: Linda C. Taunt <Taunt.Linda@azdeq.gov>
Sent: Thu Aug 11 16:20:05 2011
Subject: Draft Environmental Assessment for Proposed Ajo Forward Operation Base

On behalf of Linda Taunt, Deputy Division Director, Water Quality Division of the Arizona Department of Environmental Quality, thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Proposed Ajo Forward Operation Base. The Draft Environmental Assessment addresses our comments that were submitted April 20, 2011. We have no additional comments.

*Wendy LeStarge
Environmental Rules Specialist
Arizona Department of Environmental Quality
Water Quality Division
(602) 771-4836*



INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

August 12, 2011

Mr. David Guzewich
U.S. Customs & Border Protection
Facilities Management and Engineering
1301 Constitution Avenue NW, Suite B-155
Washington, DC 20229

Dear Mr. Guzewich:

The International Boundary and Water Commission, United State Section (USIBWC) has received your draft Environmental Assessment and Proposed FONSI entitled "Environmental Assessment for the Proposed Ajo Forward Operating Base, Ajo Border Patrol Station Area of Responsibility, U.S. Border Patrol, Tucson Sector."

The USIBWC has reviewed the above referenced project and determined that the project should not have any impacts on USIBWC property or interests. Construction should maintain best management practices to prevent runoff or degradation of air quality during construction to avoid impacts to watershed interests in Mexico.

Additionally, the EA states that biological impacts to birds during bird breeding season will be avoided. This should be expanded to note that breeding season for the endangered Sonoran Pronghorn occurs in September and October. Measures similar to those taken during the Ajo-1 Tower project to avoid construction impacts to the Sonoran Pronghorn should also be planned and initiated for this project.

If you have any questions, please feel free to call me at (915) 832-4702 or Mr. Wayne Belzer at (915) 832-4703.

Sincerely,

Gilbert Anaya
Division Chief
Environmental Management Division



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin
Director

August 23, 2011

Mr. David Guzewich
U.S. Customs and Border Protection
Facilities Management and Engineering
1301 Constitution Avenue NW, Suite B-155
Washington, DC 20229

RE: Draft Environmental Assessment for the Proposed Ajo Forward Operating Base

Dear Mr. David Guzewich:

The ADEQ Air Quality Division has reviewed your letter, received August 4, 2011, concerning the Draft Environmental Assessment for the Proposed Ajo Forward Operating Base Project. While the project is not located in a nonattainment area regulated for 10-micron particulate matter (PM₁₀), the area is, however, near the Ajo PM₁₀ Nonattainment area. Please note: in our review of the proposed project, it has come to our attention that, in a letter dated April 28, 2011, ADEQ previously misidentified the proposed project as within the nonattainment area.

As described, the project is anticipated to have a de minimis impact on air quality. Considering prevailing winds and to minimize adverse impacts on public health and welfare, the following information is provided for consideration:

REDUCE DISTURBANCE of PARTICULATE MATTER during CONSTRUCTION

This action, plan or activity may temporarily increase ambient particulate matter (dust) levels. Particulate matter 10 microns in size and smaller can penetrate the lungs of human beings and animals and is subject to a National Ambient Air Quality Standard (NAAQS) to protect public health and welfare. Particulate matter 2.5 microns in size and smaller, also subject to a NAAQS, is difficult for lungs to expel and has been linked to increases in death rates; heart attacks by disturbing heart rhythms and increasing plaque and clotting; respiratory infections; asthma attacks and cardiopulmonary obstructive disease (COPD) aggravation.

The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

BW1 FOIA CBP 007192

Ms. Loren Flossman

April 28, 2011

Page 2 of 2

- I. Site Preparation and Construction
 - A. Minimize land disturbance;
 - B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air;
 - C. Cover trucks when hauling soil;
 - D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - E. Stabilize the surface of soil piles; and
 - F. Create windbreaks.
- II. Site Restoration
 - A. Revegetate any disturbed land not used;
 - B. Remove unused material; and
 - C. Remove soil piles via covered trucks.

The following rules applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- ☐ Arizona Administrative Code R18-2-604 through -607
- ☐ Arizona Administrative Code R18-2-804

Should you have further questions, please do not hesitate to call me at (602) 771-2375, or Lhamo LeMoine at (602) 771-2373.

Very truly yours,



Diane L. Arnst, Manager
Air Quality Planning Section

Enclosures (2)

cc: Bret Parke, EV Administrative Counsel
Lhamo LeMoine, Administrative Secretary
File No. 257647

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note

Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning areas, as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 6 A.A.R. 2009; effective May 12, 2000 (Supp. 00-2). Amended by final rulemaking at 11 A.A.R. 2210, effective July 18, 2005 (Supp. 05-2).

R18-2-610. Definitions for R18-2-611

The definitions in Article 1 of this Chapter and the following definitions apply to R18-2-611:

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM₁₀ emissions from a regulated agricultural activity.
5. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
6. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
7. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM₁₀ nonattainment area.
8. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
9. "Committee" means the Governor's Agricultural Best Management Practices Committee.
10. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
11. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
12. "Cropland" means land on a commercial farm that:
 - a. Is within the time-frame of final harvest to plant emergence;
 - b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
 - c. Is a turn-row.

- a. If the burning would occur at a solid waste facility in violation of 40 CFR 258.24 and the Director has not issued a variance under A.R.S. § 49-763.01.
- E. Open outdoor fires of dangerous material. A fire set for the disposal of a dangerous material is allowed by the provisions of this Section, when the material is too dangerous to store and transport, and the Director has issued a permit for the fire. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The Director shall permit fires for the disposal of dangerous materials only when no safe alternative method of disposal exists, and burning the materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts that will endanger health or safety.
- F. Open outdoor fires of household waste. An open outdoor fire for the disposal of household waste is allowed by provisions of this Section when permitted in writing by the Director or a delegated authority. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The permittee shall conduct open outdoor fires of household waste in an approved waste burner and shall either:
 1. Burn household waste generated on-site on farms or ranches of 40 acres or more where no household waste collection or disposal service is available; or
 2. Burn household waste generated on-site where no household waste collection and disposal service is available and where the nearest other dwelling unit is at least 500 feet away.
- G. Permits issued by a delegated authority. The Director may delegate authority for the issuance of open burning permits to a county, city, town, air pollution control district, or fire district. A delegated authority may not issue a permit for its own open burning activity. The Director shall not delegate authority to issue permits to burn dangerous material under subsection (E). A county, city, town, air pollution control district, or fire district with delegated authority from the Director may assign that authority to one or more private fire protection service providers that perform fire protection services within the county, city, town, air pollution control district, or fire district. A private fire protection provider shall not directly or indirectly condition the issuance of open burning permits on the applicant being a customer. Permits issued under this subsection shall comply with the requirements in subsection (D)(3) and be in a format prescribed by the Director. Each delegated authority shall:
 1. Maintain a copy of each permit issued for the previous five years available for inspection by the Director;
 2. For each permit currently issued, have a means of contacting the person authorized by the permit to set an open fire if an order to extinguish open burning is issued; and
 3. Annually submit to the Director by May 15 a record of daily burn activity, excluding household waste burn permits, on a form provided by the Director for the previous calendar year containing the information required in subsections (D)(3)(e) and (D)(3)(f).
- H. The Director shall hold an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- I. Nothing in this Section is intended to permit any practice that is a violation of any statute, ordinance, rule, or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-602, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 10 A.A.R. 388, effective March 16, 2004 (Supp. 04-1).

R18-1-603. Repealed

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-603, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4). Repealed effective October 8, 1996 (Supp. 96-4).

R18-2-604. Open Areas, Dry Washes, or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-604, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

ARTICLE 8. EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)

R18-2-801. Classification of Mobile Sources

- A. This Article is applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations.
- B. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-801 renumbered to Section R18-2-901, new Section R18-2-801 renumbered from R18-2-601 effective November 15, 1993 (Supp. 93-4).

R18-2-802. Off-road Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-802 renumbered to Section R18-2-902, new Section R18-2-802 renumbered from R18-2-602 effective November 15, 1993 (Supp. 93-4).

R18-2-803. Heater-planer Units

No person shall cause, allow or permit to be emitted into the atmosphere from any heater-planer operated for the purpose of reconstructing asphalt pavements smoke the opacity of which exceeds 20%. However three minutes' upset time in any one hour shall not constitute a violation of this Section.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-803 renumbered to Section R18-2-903, new Section R18-2-803 renumbered from R18-2-603 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

R18-2-805. Asphalt or Tar Kettles

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any asphalt or tar kettle smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the operation of an asphalt or tar kettle without minimizing air contaminant emissions by utilizing all of the following control measures:
 1. The control of temperature recommended by the asphalt or tar manufacturer;
 2. The operation of the kettle with lid closed except when charging;
 3. The pumping of asphalt from the kettle or the drawing of asphalt through cocks with no dipping;
 4. The dipping of tar in an approved manner;
 5. The maintaining of the kettle in clean, properly adjusted, and good operating condition;
 6. The firing of the kettle with liquid petroleum gas or other fuels acceptable to the Director.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-805 renumbered to Section R18-2-905, new Section R18-2-805 renumbered from R18-2-605 effective November 15, 1993 (Supp. 93-4).



United States Department of the Interior

NATIONAL PARK SERVICE
INTERMOUNTAIN REGION
12795 West Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287



IN REPLY REFER TO:
L7617 (IMR-D)

SEP 02 2011

Christopher J. Colacicco
Program Manager,
Real Estate and Environmental Services Division,
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
1301 Constitution Ave. NW, Suite B-155
Washington, DC 20229

Dear Mr. Colacicco,

Thank you for the opportunity to review the Environmental Assessment (EA) for the Proposed Ajo Forward Operating Base, Ajo Station Area of Responsibility U.S. Border Patrol, Tucson Sector. Department of Homeland Security, US Customs and Border Protection, US Border Patrol. (August 2011). Organ Pipe Cactus National Monument (OPCNM) has worked on our review of the EA and the attached matrix contains our National Park Service (NPS) comments.

We would like to meet with you and your staff at your earliest convenience to discuss what we believe are some key points that could be addressed to ensure continued success in each of our respective missions. We will be in contact with you shortly to arrange such a meeting.

Please feel free to contact Colin Campbell, Deputy Director, Intermountain Region Office, (303) 969-2800, or Lee Baiza, Superintendent, OPCNM, (520) 387-6849 x 7500, to further discuss our comments.

Sincerely,

John Wessels
Regional Director

cc: Lee Baiza, Organ Pipe Cactus National Monument

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Aug 19 11:12:32 2011

Subject: Please protect Organ Pipe Cactus National Monument!

Aug 19, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I ask that you please halt plans to expand the patrol base located in Organ Pipe Cactus National Monument. Tripling the size of the temporary base would have significant adverse effects on the surrounding wilderness, not to mention the adverse effects due to significantly higher patrolling in the area. Besides, because far fewer migrants have crossed in the Organ Pipe area in recent years, such a base expansion is unnecessary.

Thank you in advance for your attentiveness to citizen input.

Sincerely,

Mr. Jonathan Amgott
3630 Mallie Ct
Melbourne, FL 32934-8358

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Tue Aug 23 17:00:43 2011

Subject: Save Organ Pipe National Monument's Environment!

Aug 23, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

We are pleased that the illegals are not using the area of Organ Pipe National Monument as frequently as in the past. The traffic is down dramatically! Yeah! Therefore, expansion of the base is not needed!!

Any expansion would probably just lead to the smugglers making more wildcat trails and roads through the Monument. Let's show concern for the environment!

Sincerely,

Miss Barbara Cain
3489 N Camino La Jicarrilla
Tucson, AZ 85712-6042
(520) 881-5689

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Merlin Dilley
Sent: Saturday, August 20, 2011 6:04 PM
To: GUZEWICH, DAVID C
Subject: Please respect the M.O.A.

Aug 20, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

As a citizen of a border state, border issues concern me greatly, even though I am so far from the Southern border. I understand that border issues are of huge importance, but I believe that the Memorandum of Understanding is the most effective way to deal with border issues. I am concerned that this case here is an example of the M.O.A. not being followed, and the land managers and the land are being negatively impacted.

Sincerely,

Mr. Merlin Dilley
101 High St Apt 1
Farmington, ME 04938-1806

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Aug 19 15:31:47 2011

Subject: Please protect our sensitive borderlands! We must do better!

Aug 19, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

Common sense must be used in all our strategies! Please consider the topography, wildlife, flood zones , needs of citizens, etc. when implementing border security!

Sincerely,

Mr. Thomas Nieland
415 Oakwood Dr
Alamo, TX 78516-9300
(210) 399-8338

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 04:52:16 2011

Subject: Protect our border wilderness

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

Patrols should be concentrated along the border itself near Organ Pipe and Cabeza Prieta to avoid the severe operational impacts wrought by the current strategy, which focuses on the Devil's Highway area well north of the border.

The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas.

The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness.

Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed.

Sincerely,

Mr. Michael @ Kathleen Shores

1021 S Ash Ave

Tempe, AZ 85281-8728

(480) 967-7771

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 15:42:47 2011

Subject: Please protect our borderlands against unnecessary construction

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I am writing to ask you to consider the importance of the environment, wilderness and wildlife. I am against the proposed Border Patrol station to be built in the Organ Pipe Cactus National Monument, adjacent to Cabeza Prieta National Wildlife Refuge. This base, from which 24-hour patrols across these public lands will be operated, will be located well north of the actual border and will affect many sensitive areas, including the national monument, national wildlife refuge, and designated wilderness areas.

Patrols should be concentrated along the border itself near Organ Pipe and Cabeza Prieta to avoid the severe operational impacts wrought by the current strategy, which focuses on the Devil's Highway area well north of the border.

The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas.

The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness.

Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed.

I believe in protecting our U.S. border, however I would like the effort to do so to NOT sacrifice the precious treasures of wilderness and wildlife in our country that add to the richness that makes our country so great.

Thank you for your time and consideration.

Sincerely,

Ms. Amy Catalino
2109 Manchester St
Rosamond, CA 93560-7686

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Naomi Cohen

Sent: Friday, September 02, 2011 3:12 PM

To: GUZEWICH, DAVID C

Subject: Do not expand the Border Patrol base in Southwestern Arizona

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I am writing to oppose the proposed operating base in Organ Pipe Cactus National Monument for the following reasons:

Patrols should be concentrated along the border to minimize operational impacts and to intercept undocumented migrants before they are subject to the harsh conditions in this area.

Expansion of the base from 1 to

3 acres would cause deterioration of the wilderness character of the area. Expansion of the base would result in more roads and off road vehicular traffic. Cross border traffic of undocumented migrants has decreased significantly in recent years in this area making a larger base unnecessary.

I spent over a week in southern Arizona in April 2011 learning about undocumented migrants and the threats to fragile lands like Cabeza Prieta, Organ Pipe and Saguaro National Monument. What I learned during that time convinced me that there are better solutions to protect our borders and our wildlands than increased roads, bases and border patrols.

Sincerely,

Ms. Naomi Cohen

PO Box 39

Gap Mills, WV 24941-0039

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 19:43:25 2011

Subject: NO expansion of patrol base!

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I do not support the idea of a 3 acre patrol base in Organ Pipe Cactus National Monument. This is unnecessary and will have a very bad impact on the wilderness of that area. There has also been an extreme decrease of migration through those regions which makes it even more clear that this is unnecessary. As a taxpaying citizen I DO NOT support the idea of increasing border militarization at the expense of beautiful border lands or really at any expense at all!

Thank you for your time and consideration and I hope that you will re-think this plan!

Sincerely,

Dr. Cicily Cooper
4145 Montgomery St
Oakland, CA 94611-5119
(917) 514-3042

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Roy Emrick
Sent: Friday, September 02, 2011 2:43 PM
To: GUZEWICH, DAVID C
Subject: Comment on Cabeza DEIS

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

Twenty and thirty years ago I used to love crossing the Cabeza when it was almost pristine, though military maneuvers were degrading it even then.

There are already myriads of wildcat roads because of increased patrols by ORV's.

Please do not further damage the wilderness va by increasing the size of the temporary base.

Dealing with the causes of the problem, not destroying the environment to make it look like something is being done, is not the answer

Sincerely,

Dr. Roy Emrick
2220 N Norton Ave
Tucson, AZ 85719-3831

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Tom Finholt
Sent: Friday, September 02, 2011 7:56 PM
To: GUZEWICH, DAVID C
Subject: Protecting Wilderness Lands

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

This is Tom Finholt.

Please, protect the wildlife refuge and the wilderness lands within it.

Thanks,

Tom Finholt

Sincerely,

Mr. Tom Finholt
212 Timber Wind Dr
Wildwood, MO 63011-1961
(636) 458-3521

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Sat Sep 03 00:56:10 2011

Subject: sensitive borderlands!

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

This action is not really needed. The impact to the landscape would be severe. The patrols should be concentrated along the border itself. The degradation of the area by this action would leave a permanent impact. Please reconsider.

Sincerely,

Mr. Robert Kee
6726 E Calle Dened
Tucson, AZ 85710-5618

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 16:12:55 2011

Subject: Our sensitive borderlands need your protection!

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

It is my strong opinion that the Border Patrol should concentrate its work along the border itself near Organ Pipe and Cabeza Prieta to avoid severe operational impact that results from the present strategy which focuses on the area well north of the border.

The base should not be expanded from the current temporary one-acre footprint. An increase would significantly degrade the wilderness character of the area and lead to an increase in wildcat roads and off-road vehicular impact on the wilderness.

And, finally, because the border crossing traffic has dramatically dropped in the Organ Pipe area in recent years, a base expansion there is not needed.

Sincerely,

Mr. Kenneth Kennon
5125 E Burns Pl
Tucson, AZ 85711-3122

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Vicki Lee
Sent: Friday, September 02, 2011 2:12 PM
To: GUZEWICH, DAVID C
Subject: Pls don't expanded border patrol base near Cabeza Prieta

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

Mr. Guzewich,

I am writing in opposition to the proposal to install a permanent 3-acre Border Patrol base near Cabeza Prieta National Wildlife Refuge.

The area is too far north of the border line to be effective and too close to the sensitive wildlife habitat found in the national monument, wildlife refuge and wilderness areas.

My friends and I frequently travel to southern Arizona to view wildlife, especially birds. The amazing variety of wildlife in the area is worth the long trip from California, and it certainly deserves to be protected rather than overlaid with roads and OHV damage.

Given the recent decrease in cross-border traffic, a base expansion there cannot be justified.

Thanks for listening.

Sincerely,

Ms. Vicki Lee
16401 San Pablo Ave Spc 206
San Pablo, CA 94806-1318
(510) 741-1201

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of sarah loftus
Sent: Friday, September 02, 2011 2:42 PM
To: GUZEWICH, DAVID C
Subject: Please protect the Arizona wilderness and out important borderland resources

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I am writing to voice my opposition and concern regarding the proposed construction of a forward operating base on the Arizona border and the potential vehicular impacts development of the base will have on the Cabeza Prieta National Wildlife Refuge. Please consider the following:

1. Patrols should be concentrated along the border itself near Organ Pipe and Cabeza Prieta to avoid the severe operational impacts wrought by the current strategy, which focuses on the Devil's Highway area well north of the border.
2. The base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas.
3. The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness.
4. Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed.

Thank you,

Sarah Loftus
2501 Wickersham #423
Austin, Texas
78741

Sincerely,

Ms. sarah loftus
2501 Wickersham Ln Apt 423
Austin, TX 78741-4668

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Alex and Carole Mintzer
Sent: Friday, September 02, 2011 2:43 PM
To: GUZEWICH, DAVID C
Subject: Reduce CBP quad bike ATV interdiction in wilderness!

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I oppose conversion of ORPI wilderness land to a 3-acre CBP forward base for quad bike ATV operations.

I have visited Organ Pipe Cactus National Monument and adjacent Sonoita, Mexico, dozens of times over the past 4 decades. I have seen the tremendous increase in UDA footprint traffic at ORPI during the 1990s and early part of last decade, but it has now decreased greatly again as opportunities provided by the US economy has tanked. On my last visit in January, I saw lots of quad bike ATV tracks across the open desert and through the washes of ORPI. This is CBP agent activity, as smugglers/UDAs generally don't use such range-limited, high visibility, low cargo capacity vehicles. Although the tracks thru arroyo channels are "re-groomed" and removed by water flow during each monsoon season, open desert vehicle tracks may remain as land scars for many decades. CBP should return to aerial surveillance used heavily in past years, and reduce its reliance on quad bike ATVs. The wilderness character of Cabeza Prieta and backcountry ORPI must be preserved, no matter the paranoid sentiments of poorly informed "Tea Party" Arizona residents.

Sincerely,

Dr. Alex and Carole Mintzer
465 N Christine St
Orange, CA 92869-5711
(714) 288-2829

-----Original Message-----

From: Sierra Club [mailto:information@sierraclub.org] On Behalf Of Carolyn Morley
Sent: Wednesday, August 24, 2011 11:34 AM
To: GUZEWICH, DAVID C
Subject: The impact on our border

Aug 24, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I live in Arizona and camped in the last few years at Organ Pipe Cactus Pipe Monument. The natural beauty of the area is already affected by the human activity. The road is dangerous with the chases the border patrol uses to track down illegals. Having a larger presence and bigger footprint would only hurt the natural environment more. Fencing the border is devastating to the land and animals. Fewer illegals are entering the area so there is no need to expand the border patrol base that is already present.

Sincerely,

Mrs. Carolyn Morley
745 W Paseo Del Canto
Green Valley, AZ 85622-3421

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 17:12:52 2011

Subject: Please protect our sensitive desert ecosystem along the AZ border!

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

Border patrols should be concentrated along the border itself near Organ Pipe and Cabeza Prieta to avoid the severe operational impacts wrought by the current strategy, which focuses on the Devil's Highway area well north of the border.

The BP base should not be expanded from its current temporary one-acre footprint to a permanent three-acre footprint because it would significantly degrade the wilderness character of surrounding areas.

The base should not be expanded because increased patrols in that area would lead to an increase in wildcat roads and off-road vehicular impacts to wilderness.

Because cross-border traffic has dropped dramatically in the area of Organ Pipe in recent years, a base expansion there is not needed.

Please do not contribute to the degradation of this fragile ecosystem!

thank you in advance for doing the right thing

Sincerely,

Mr. Brit Rosso
8629 S Triangle K Ranch Pl
Vail, AZ 85641-8932

----- Original Message -----

From: Sierra Club <information@sierraclub.org>

To: GUZEWICH, DAVID C

Sent: Fri Sep 02 15:42:36 2011

Subject: No to the expansion of patrol base in Organ Pipe

Sep 2, 2011

Mr. David Guzewich

Dear Mr. Guzewich,

I am writing to voice my opposition to the proposed installation of a permanent Border Patrol base in Organ Pipe Cactus National Monument.

Expanding the current base would not make a significant contribution to border security, but would result in unacceptable harm to the surrounding wilderness. The decline of cross-border traffic in the Organ Pipe area in recent years makes expansion of this base unnecessary, and border security funds could be better spent by concentrating patrols along the border itself.

Although I live in Oregon, southeast Arizona is one of my favorite destinations for bird watching. The enjoyment of being in nature is seriously compromised by highly visible border security infrastructure and patrol activity in birding areas. I am also aware of the damage being done to unique ecosystems all along the border in the name of security, such as the damage done by off-road vehicles in sensitive areas.

I believe security objectives can be met without diminishing the beauty of our National Monuments, Wildlife Refuges and other natural treasures.

Thank you for taking time to consider my concerns.

Dr. Suzanne Williams

Sincerely,

Dr. Suzanne Williams
1980 Cleveland St
Eugene, OR 97405-1533
(541) 465-9075

----- Original Message -----

From: fred goodsell <fgoodsell@yahoo.com>

To: GUZEWICH, DAVID C

Sent: Wed Aug 31 14:26:11 2011

Subject: EA for FOB, Ajo, AZ.

1530 N. Rosedale Ave

Ajo, AZ 85321

August 31, 2011

Mr. David C. Guzewich

Environmental Planning, Border Patrol and Tactical Infrastructure Program.

Please consider the following comments on your plans for a new Forward Operating Facility to replace your Bates Well facility on Organ Pipe Cactus N.M. near Ajo, AZ.

Purpose and need

“USBP agents need to be deployed CLOSER TO THE INTERNATIONAL BORDER and remote western zones of the Ajo station to improve efficiency and effectiveness during work shifts.”

1. Your proposed location is too far north. It should be on the international boundary directly south of the proposed location. The best alternative to that plan would be to build the facility at Lukeville.

No one said your job would be easy so please do the job well and effectively in the proper location.

2. I consider the alternatives offered totally insufficient.

A. Your preferred alternative. See comments below.

B. Alternative two - Generator. This is not an alternative, merely a change in about 1 % of the facility.

C. Alternative Three - CPNWR location. This changes nothing in the effects on the “human and natural environment”. Simply moves the facility a few feet west.

D. Alternative four - no action. This means a continuation of the present situation which is unacceptable.

FONSI 3

“No significant impacts on the natural or human environment are expected from implementation of any of the action alternatives.”

3. I first drove the entire Camino del Diablo in 1970. I have been driving it multiple times per year since 2001. Your FONSI, to be polite, is inappropriate.

What “human environment?” There was no “Human environment” out there until this mess.

As to the natural environment just how do you think you can introduce 16 - 32 people into the area and have them do their jobs without tremendous impact to the natural environment. The area shown on the map as the area to be covered by this station is all Wilderness. Your agents won’t be walking quietly across the desert.

4. The entire EA is a farce and anyone reading it knows it is. It shows that you can not be trusted with your plans so you lose the trust of the general public. While out there doing construction and use you will be in violation of multiple federal laws. I can’t list them all but they include the Wilderness Act, Endangered Species Act, Historical and Cultural preservation acts, clean air acts and clean water acts.

Try telling the truth rather than printing a fabrication like the EA.

Please move south and obey Federal laws. We need border protection but not the way it is being done or proposed.

Sincerely,

Fred Goodsell

ps. The local BP administration and officers do not want or need this facility. Please drop it.

.

Mr. David C. Guzewich
Environmental Planning
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
1301 Constitution Avenue NW, Suite B-155
Washington, DC 20229
David.Guzewich@dhs.gov

RE: Draft Environmental Assessment for the Proposed Ajo Forward Operating Base,
Ajo Station's Area of Responsibility, U.S. Border Patrol, Tucson Sector

September 2, 2011

Sent via email

Dear Mr. Guzewich:

Please accept these comments from the National Parks Conservation Association (NPCA) on the draft Environmental Assessment for the Proposed Ajo Forward Operating Base, Ajo Station's Area of Responsibility, U.S. Border Patrol, Tucson Sector. NPCA is a nonprofit citizens association, founded in 1919, dedicated to the protection and enhancement of our National Park System. NPCA has 330,000 members, including over 9,000 in the state of Arizona.

Inadequate Scoping Results in Missing Alternatives

Despite having commented on several previous Environmental Assessments in this sector, my organization – nor any other conservation group, public interest group, or private citizen to my knowledge – was involved in scoping this decision and Environmental Assessment. By beginning an environmental review without involving the public from the start results in resentment and an inadequate understanding by those preparing the document of all the issues and alternatives that should be considered.

For instance, if the reason for the Forward Operating Base (FOB) is because it takes a certain amount of time for staff to reach this region when deployed from Ajo, then one obvious alternative that should have been identified during scoping is simply improving the road. That's not to say that we necessarily endorse this alternative, but it should certainly be looked at, and might prove to be cheaper and have less impact on the environment.

Likewise, considering this facility's need in the larger context of your strategy and operations is lacking, and would have been mentioned in the scoping process. Is this the place you should be placing your resources? Would it be more effective to spend the money and personnel time closer to the actual border to prevent border crossings or intercept border crossers closer to where they enter our country? There has been some concern that backcountry interception has been emphasized over the vast amount of illegal traffic that occurs at ports of entry, such as Lukeville. Which makes us wonder why you are not planning a FOB at Lukeville, which seems both needed and useful, while proposing this isolated facility rather far from the border?

Why Must the FOB Be Tripled In Size?

The current FOB at Bates Well uses one acre, and yet this Environmental Assessment asks for three acres, stating that the footprint will be two acres. Why the 150% increase? Why the false assumption that having permission to use three acres will only result in a two-acre footprint? This is a cherish national monument, upon which development should only be done after careful, careful consideration. The need for the size of this facility has not been established in this document.

FONSI not justified at this time; full EIS needed

We have been able to review fairly final drafts of comments to be submitted to you on this matter by the Center for Biological Diversity, and jointly by the Sierra Club, Defenders of Wildlife, Sky Island Alliance, and the Arizona Wilderness Coalition. We concur with their concerns and look forward to seeing your considered responses to the points they raise, as well as ours articulated in this comment statement. This level of community controversy raises the decision-making responsibility to one that under the National Environmental Policy Act requires a full environmental impact statement process. Simply reproducing our statement, and theirs, in an appendix of a slightly revised Environmental Assessment will not be adequate.

In fact, it seems obvious that a proposal for a three-acre, staffed law enforcement facility inside a national monument would require the careful consideration that only comes with the full NEPA process. We ask that you continue your deliberations by preparing a draft environmental impact statement, one that 1) better involves the interested public, 2) looks seriously at the full range of alternatives including a smaller facility, road improvement instead of a forward operating base in this vicinity, other locations for the base, and/or re-allocating these resources to interdictions more closely along the border or at ports of entry, and 3) includes in more detail and substance the impacts that your proposed facility would have on the natural and cultural resources of Organ Pipe Cactus National Monument as well as on wildlife and wildlife habitat as a component of your total strategy and operations in the area.

Thank you.

Sincerely,

Kevin Dahl
Arizona Program Manager
National Parks Conservation Association
738 N. Fifth Ave. Suite 222
Tucson, AZ 85705
kdahl@npca.org
520-624-2014
520-603-6430 mobile

From: Kevin Dahl [mailto:kevindahl@yahoo.com]
Sent: Friday, September 02, 2011 4:07 PM
To: GUZEWICH, DAVID C
Subject: personal comment for the record on draft EA for Ajo Forward Operating Base

Mr. Guzewich (and Mr. Hodapp by forward of this):

I am writing personally, as a member and employee of National Parks Conservation Association (NPCA), in support of the statement NPCA has submitted to you today on the draft Environmental Assessment for the proposed Ajo Forward Operating Base.

Since the early 1970s I have visited and enjoyed Organ Pipe Cactus National Monument. This incredible public resource is under siege, having become what I call our latest "battlefield" monument. The construction of an advance law enforcement base in a remote section of the monument deserves the scrutiny and consideration that only comes when NEPA, ESA, and other environmental and cultural protection laws are followed. I urge that this occur before plans to construct the base are finalized. The draft EA is insufficient, as expressed by NPCA comments and the comments of other organizations, and certainly doesn't warrant a finding of FONSI. Please continue with the process and do a full environmental impact statement.

Thank you.

-Kevin

Kevin Dahl
1609 E. Spring St.
Tucson, AZ 85719



Mr. David C. Guzewich
Environmental Planning
Border Patrol Facilities and Tactical Infrastructure
Program Management Office
1301 Constitution Avenue NW, Suite B-155
Washington, DC 20229
202-344-1250 (FAX)
David.Guzewich@dhs.gov

**RE: Draft Environmental Assessment for the
Proposed Ajo Forward Operating Base
Ajo Station's Area of Responsibility
U.S. Border Patrol
Tucson Sector**

September 2, 2011

Sent via email and certified mail this date
#7011 0470 0001 6721 0502

Dear Mr. Guzewich,

The Center for Biological Diversity appreciates the opportunity to comment upon the Draft Environmental Assessment (EA) for this project. The Center is a national, non-profit conservation organization whose 325,000 members and supporters, approximately 13,000 of whom reside in Arizona, highly value the wildlife and recreational resources of Organ Pipe National Monument and Cabeza Prieta National Wildlife Refuge. The Center and its members have a keen interest in the actions of federal agencies that take place in, and will impact both the Refuge and the Monument. The Center's interests include impacts to threatened and endangered species, including Sonoran pronghorn (*Antilocapra Americana sonoriensis*, endangered), lesser long-nosed bat (*Leptonictus curasoae yerbabuena*, endangered), Acuña cactus (*Echinomastus erectocentrus acuñaensis*, candidate for listing) Sonoran desert tortoise (*Gopherus agassizi*, candidate for listing), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*, endangered), and jaguar (*Panthera onca*, endangered).

It is inappropriate to tier the analysis for the Forward Operating Base (FOB) expansion project to the 2009 analysis because the 2009 SBI*net* Finding of No Significant Impact (FONSI) and Environmental Assessment (EA) did not adequately analyze the impacts of off-road vehicle use and travel by U.S. Border Patrol agents and the expected benefits of the 2009 FONSI and EA for the SBI*net* project have not occurred. This is a critical point given that the current project seeks

to triple the footprint of the FOB, yet there is no analysis of the impacts of a three-fold increase in the number of U.S. Border Patrol agents who could all potentially engage in off-road travel for interdiction or other purposes.

We offer the following comments on the Draft Environmental Assessment (DEA):

I. Scope of the Analysis Must Include U.S. Border Patrol Operations Conducted in the Field and Away from the Ajo Station

The EA for the FOB expansion project erroneously states that the 2009 SBInet Ajo-1 Tower Project EA addresses the impacts of U.S. Border Patrol activities away from the Ajo Station and the FOB. This is not correct. Therefore, the current EA must address the impacts of U.S. Border Patrol activities, especially off-road motorized travel during interdiction activities.

This project will increase the number of U.S. Border Patrol agents on the ground on both the Cabeza Prieta National Wildlife Refuge (CPNWR) and the Organ Pipe Cactus National Monument (OPCNM). The Fish and Wildlife Service (FWS) has documented extensive unauthorized road and trail development on the CPNWR that is largely attributable to the U.S. Border Patrol's interdiction activities but has never been fully or adequately analyzed in any project NEPA documentation. This oversight must be corrected. We provide further information on this issue in the sections below.

II. Impacts to Pronghorn

As FWS has stated:

“[Cross border violators] and U.S. Border Patrol enforcement activities occur throughout the range of the pronghorn, and evidence suggests pronghorn are avoiding areas of high CBV [cross border violator] and enforcement activities. Historically, pronghorn tended to migrate to the southeastern section of their range (southeastern CPNWR, such as south of El Camino del Diablo, and OPCNM, such as the Valley of the Ajo) during drought and in the summer. Within the last several years, very few pronghorn have been observed south of El Camino del Diablo on CPNWR. This suggests CBV and the interdiction of these illegal activities have resulted in pronghorn avoiding areas south of El Camino del Diablo; these areas are considered important summer habitat for pronghorn and may have long-term management and recovery implications... Additionally, after the establishment of a Forward Operating Base (FOB) at Bates Well, which was located in the middle of an extremely critical and narrow Sonoran pronghorn movement corridor (Bates Pass) on OPCNM, few pronghorn have been documented using the Valley of the Ajo, and no pronghorn have been documented entering the Valley of the Ajo through the Bates Pass area... The valleys at CPNWR and OPCNM, which were once nearly pristine Sonoran Desert Wilderness, now have many braided, unauthorized routes through them and significant vehicle use by USBP pursuing CBVs[.]”¹

¹ Fish and Wildlife Letter in Response to request for Reinitiation of Formal Consultation on the SBInet Ajo-1 Tower Project, Ajo Area of Responsibility, U.S. Border Patrol, Tucson Sector, Arizona, pages 6-7.

At the same time, “vehicle barriers on the international border on the CPNWR and OPCNM are facilitating recovery of pronghorn by drastically reducing the amount of CBV vehicle traffic in pronghorn habitat.”²

Unfortunately, “CBV foot traffic and off-road vehicle activity and required Federal law enforcement response have been and continue to be significant threats to the pronghorn and its habitat[.]”³ FWS has not analyzed the impacts from U.S. Border Patrol agents located at the FOB nor the amount of off-road vehicle activity associated with the number of agents on the ground. For this project expansion, the FWS and U.S. Department of Homeland Security must analyze the existing impacts of current off-road vehicle traffic by U.S. Border Patrol agents as well as the anticipated increase in those impacts by an expansion of this FOB.

Despite statements in the 2009 *SBI*net Ajo-1 Final EA and FONSI that the Ajo-1 Tower Project was needed to, among other things, “reduce environmental impacts and enhance restoration efforts[.]”⁴ it appears that cross-country or off-road driving by U.S. Border Patrol agents has not been reduced, thereby failing to reduce the environmental impacts of border enforcement activities.⁵

The FWS compatibility determination for the *SBI*net Ajo-1 Tower Project clearly identifies U.S. Border Patrol activities as having a significant negative impact on pronghorn:

“The Sonoran pronghorn population within the U.S. has failed to increase since 2004; likely because of the level of activity occurring within this area. Furthermore, a significant portion of pronghorn are currently occupying habitat within the tactical ranges of the Barry M. Goldwater Range, affecting the ability of the U.S. Air Force to conduct training missions. Pronghorn are staying on the tactical ranges and avoiding their traditional, seasonal migration routes to important summer habitat areas in the southeast portion of their current range. I believe this is due to the level of impacts associated with smuggling and resulting interdiction activities occurring along the routes pronghorn take to access this summer habitat.”⁶

Unfortunately, the highest level of personnel stationed at the expanded FOB will take place from April through September (24-32 personnel),⁷ which corresponds to the pronghorn fawning period, a time during which impacts from motorized and other uses should be minimized.

It appears as though the impacts from the FOB expansion on Sonoran pronghorn have not been adequately analyzed, rendering this draft FONSI and EA inadequate.

² *Id.* at 7.

³ *Id.*

⁴ U.S. Department of Homeland Security, U.S. Customs and Border Protection, Final Environmental Assessment and Finding of No Significant Impact for The Proposed *SBI*net Ajo-1 Tower Project, Ajo Station’s Area of Responsibility, Tucson Sector, December 2009, page 2.

⁵ USFWS Compatibility Determination for *SBI*net Ajo-1 Tower, page 4.

⁶ USFWS Compatibility Determination for *SBI*net Ajo-1 Tower, page 4.

⁷ 2011 Ajo FOB EA at 2-4.

Formal consultation under Section 7 of the Endangered Species Act is warranted for this EA, especially in light of the inconsistent statements of fact regarding the intensity of enforcement in the 2009 EA and the current EA, which render previous FWS opinions unreliable.

III. There has Been No Reduction in Impacts from Off-road Driving as Anticipated in the 2009 SBInet NEPA FONSI

The U.S. Department of Homeland Security stated in the 2009 FONSI and EA for the SBInet Ajo-1 Tower Project that the proposed project would result in an overall beneficial impact within the region through a reduction in illegal activities and resulting decreased human activity in sensitive areas.⁸ This reduction in illegal activities was supposed to reduce law enforcement interdiction efforts and reduce adverse impacts to natural resources. In fact, the Department of Homeland Security expected to see a drastic reduction of illegal activities.⁹

“The construction of [the SBInet Ajo-1 Towers Project] is an attempt to minimize the need for all interdiction efforts through deterrence based upon improved enforcement[,]” and U.S. Border Patrol agents understanding of the impacts of driving off-road into the wilderness was supposed to be improved.¹⁰ Reporting of incursions was a part of the 2009 plan to reduce impacts from U.S. Border Patrol enforcement activities.¹¹

Unfortunately, it appears as if U.S. Border Patrol off-road vehicle traffic associated with interdiction activities has not decreased on the CPNWR and reporting is spotty at best. We ask the U.S. Customs and Border Patrol and Department of Homeland Security to review the U.S. Department of Interior, July 2011 report entitled Vehicle Trails Associated with Illegal Border Patrol Activities on Cabeza National Wildlife Refuge.

Growler Valley, one of the areas the SBInet towers were supposed to protect, is one of the areas most heavily impacted by off-road motorized uses. *See* Figure 3, page 9 of the Department of Interior’s July 2011 report.

The reduction in off-road vehicle traffic was used as a benefit in the analysis for the 2009 SBInet Ajo-1 Tower Project FONSI and EA, as well as in the January 2011 Supplemental EA for the same project:

“The proposed project would result in overall beneficial impacts within the region through a reduction in illegal activities and the resulting decrease in human activity in sensitive areas such as designated wilderness and protected species habitat. A reduction in illegal activities ***and resulting law enforcement surveillance and interdiction efforts would reduce adverse impacts to the natural and human environment and allow currently disturbed areas to rehabilitate through natural processes or restoration efforts.***”¹²

⁸ USFWS Compatibility Determination for SBInet Ajo-1 Tower, page 5.

⁹ *Id.*

¹⁰ 2009 SBInet FONSI and EA, page 61.

¹¹ *Id.*

¹² 2009 SBInet Supplemental EA, January 2011 FONSI page FONSI-10, emphasis added.

“[T]he Proposed Action would have an indirect beneficial impact on land use, including designated wilderness, as a result of enhanced CBV detection capabilities, improved CBV interdiction capabilities, increased deterrence of CBVs, **and a reduced enforcement footprint for CBV interdiction activities.**”¹³

“Reduction of illegal traffic **and enforcement areas** would have long-term, indirect, beneficial effects on vegetation communities used by lesser long-nosed bats...”¹⁴

“**[I]n the absence of the Proposed Action** or one of the action alternatives proposed in this SEA, illegal traffic and **the creation of new unauthorized roads and trails is likely to increase.** The No Action Alternative would have a permanent, moderate adverse effect on designated wilderness.”¹⁵

“Beneficial effects [of decreased law enforcement footprint] **would be noticeable throughout the wilderness and not localized near the proposed tower sites.** Beneficial effects would include reduced vehicle traffic within designated wilderness, reduced degradation of the landscape, and reduced litter and human waste...”¹⁶

“**In the absence of the fully operational SBInet Ajo-1 Tower Project, unauthorized roads and trails would continue to be created and used** by CBVs and subsequently **by law enforcement personnel in their required interdiction efforts.**”¹⁷

“The objective of this enforcement strategy is to maximize interdiction capabilities so that traffic levels are reduced to a level where border control can ultimately be achieved on or as close to the actual border as practical. It should be recognized that in areas where enforcement is not focused on the immediate border for operational reasons, the effect would still be to reduce traffic.”¹⁸

There are many more examples from the 2009 SBInet Ajo-1 Towers Project FONSI and EA as well as the 2011 Supplemental EA to which this current project is tiered. However, the reduction in interdiction activities is not occurring. Therefore, a significant assumption upon which the original 2009 SBInet analysis was premised has proven invalid, but this is not addressed in the current analysis for the expansion of the FOB.

The 2009 SBInet FONSI and EA, at page 57, indicated that U.S. Border Patrol agents would, in most cases, follow CBV sign on foot and only “at times” respond on horseback, all terrain

¹³ *Id.* at ES-4, emphasis added.

¹⁴ *Id.* at ES-5, emphasis added.

¹⁵ *Id.* at 3-7, emphasis added.

¹⁶ *Id.* at 3-9, emphasis added.

¹⁷ *Id.* at 3-23, emphasis added.

¹⁸ 2009 SBInet Ajo-1 Towers Project FONSI and EA at 53.

vehicle or motorcycle. The 2009 *SBI*net FONSI and EA describe U.S. Border Patrol agent responses using vehicles as taking place only “when necessary” (at page 57) and only in compliance with the 2006 Memorandum of Understanding (MOU) between the Department of Homeland Security, U.S. Forest Service, U.S. FWS, and Department of Interior. However, the actual practice appears to be, in most cases, with the use of a motorized, wheeled vehicle and the MOU is not being complied with.

During a July 31, 2011 tour of the CPNWR by the Center, we did not encounter any agents on horseback, did not identify any foot traffic sign nor any sign of horse use, but we encountered a tremendous amount of off-road vehicle use and 12 U.S. Border Patrol vehicles, one helicopter and one agent on an ATV driving just a few yards off the Camino del Diablo and clearly not in pursuit of a CBV. In August 2011, a meeting to discuss border impacts on the CPNWR was held. Several non-governmental organizations, including the Center attended. OPCNM and CPNWR staff members were present, yet the U.S. Border Patrol and Department of Homeland Security chose not to attend despite (we were told by the Refuge staff) repeated invitations and a clause in the MOU indicating participation in such discussions is required.

Despite U.S. Department of Homeland Security’s prediction¹⁹ that the towers would lead to a decrease in damage associated with off road interdiction activities, there is no evidence that this is, in practice, occurring. Rather, it appears that the opposite may be taking place. In 2007, OPCNM and CPNWR documented a combined 1,564 miles of illegal off-road routes. In 2011 there are an estimated 8,000 miles of illegal off-road vehicle routes in the CPNWR alone.²⁰

The Center submitted a Freedom of Information Request to FWS for incursion reports from U.S. Border Patrol to the Fish and Wildlife Service in January 2011. We were informed that over 700 reports existed from the Ajo and Camp Grip station. These reports were not released by FWS, but were referred back to the U.S. Customs and Border Enforcement agency for release to the Center in April 2011. To date, the Center has received no response from the U.S. Border Patrol or Department of Homeland Security and we have discovered that the referral from FWS was apparently lost at the Customs and Border Patrol or Homeland Security office. The Center believes that the 700+ incursion reports are an inadequate number to cover the number of off-road vehicle trips taken by U.S. Border Patrol and the documented 8,000+ miles of unauthorized roads and trails in designated Wilderness in the CPNWR. Therefore, the Center believes the MOU between the agencies is currently being violated.

Tiering the FONSI and EA for the current project to expand the FOB to the 2009 FONSI and EA requires the agency to rely upon information that is known to be incorrect and/or invalid. Tiering to the 2009 *SBI*net Ajo-1 Tower Project analysis and failing to include any reference to continued, significant impacts from cross-country travel by U.S. Border Patrol agents renders this current analysis completely inadequate and invalid.

IV. Documentation of damage

¹⁹ USFWS Compatibility Determination for *SBI*net Ajo-1 Tower, page 7.

²⁰ 2011 Ajo FOB EA at 3-2 and July 2011 CPNWR report, Vehicle Trails Associated with Illegal Border Activities on CPNWR, page 1.

The Center has recently visited both the OPCNM and the CPNWR and viewed first hand the impacts of CBVs and the interdiction activities of U.S. Border Patrol. Our brief visit made clear that the majority of impacts to the refuge are from off-road vehicle uses. We observed no foot traffic. Given that border enforcement activities such as *SBI_{net}* and the vehicle barriers at the border have reduced vehicle traffic from CBVs, it is painfully clear that the majority of impacts to both the refuge and the monument are from U.S. Border Patrol agents driving off-road, though the purpose of the agents' off-road driving is not clear.

While the Center was visiting the area, we toured the area on foot with several other individuals, including a FWS agent working at the CPNWR. The Center expressed our concern that the U.S. Border Patrol may see our foot tracks leaving El Camino del Diablo and use this as a reason to drive off-road, increasing damage to the area we walked along, which was already heavily impacted by U.S. Border Patrol agents driving off-road. The Fish and Wildlife Service agent informed the Center that the U.S. Border Patrol was notified of the location of our tour, but that they would likely visit the area we walked using off-road vehicles regardless. This is apparently common practice.

During our visit to the area, the Center did not find any tracks from horses, despite the "Offsetting Measures" identified in the 2009 FONSI and EA that, "[c]onsistent with the 2006 MOU, USBP will conduct patrol activities by horseback to the greatest extent practicable within the Sonoran pronghorn range, particularly from March 15 to July 31 (the Sonoran pronghorn closure season)." The Center's tour of the refuge took place on July 31, 2011. During this tour we identified many off-road vehicle tracks, and as we describe above, saw 12 U.S. Border Patrol vehicles, on helicopter and one agent on an ATV driving off-road just a yards from the main road, but not a single U.S. Border Patrol agent on horseback nor any horse trailers.

The Compatibility Determination for the *SBI_{net}* Ajo-1 Tower Project documents the fact that U.S. Border Patrol agents are traveling off-road following tire and foot tracks and that a "tremendous network of foot trails, two tracks, and illegal roads" exists throughout the Ajo-1 project area.²¹ "Off road interdiction activities have resulted in a proliferation of roads on the refuge. [The Fish and Wildlife Service] conservatively estimate[s] there are at least three times as many frequently used roads present on the refuge than at the time of wilderness designation[.]" not including the lesser used trails that "wind through virtually every valley within the refuge."²² The FWS believed that the Ajo-1 tower would, if effective, "lead to a cessation of off-road travel" in the area of the tower.²³

The purpose of the *SBI_{net}* Ajo-1 Tower Project was to reduce the number of off-road incursions by U.S. Border Patrol, but our recent visit makes clear the towers are not working as planned. As stated in the 2009 *SBI_{net}* Ajo-1 Tower Project FONSI and EA, at page 167, "CBV traffic and the consequent law enforcement response is the largest contributor to the cumulative effects of soil disturbance in the project area[.]" and this traffic has apparently not been reduced by the

²¹ USFWS Compatibility Determination for *SBI_{net}* Ajo-1 Tower, page 3.

²² *Id.* at 3.

²³ *Id.* at 5.

SBI*net* Ajo-1 Tower Project because U.S. Border Patrol continues to drive off-road into wilderness areas and there is no evidence that this traffic has been reduced in the current project EA. The lack of a decrease in off-road vehicle traffic is despite the statement in the 2009 FONSI and EA that “vehicle seizures decreased from 456 in (FY2004) to 248 (FY2008) [because of the vehicle barrier at the border] and the construction of the SBI*net* Ajo-1 Tower Project “would enhance USBP agents’ enforcement efficiency, and thus compress[] the primary enforcement footprint closer to the U.S./Mexico border.”²⁴

The Center has received, from the FWS via a Freedom of Information Act request, reports that the U.S. Border Patrol agents may be driving off-road in the Wilderness area of the CPNWR for purposes other than interdiction activities. Please see Attachment A.

V. Border Patrol Agent Time in the Field Will Increase, Increasing Impacts to the Ground

As documented in the July 2011 CPNWR Vehicle Trails Report, off-road vehicle traffic has significantly impacted designated wilderness areas in the refuge. The EA for the FOB expansion project states that vehicle commutes between the FOB and Route 85 will be decreased by 12,000 trips annually, while approximately 15,000 trips are made annually in the western portion of the Ajo Area of Responsibility (AOR).²⁵ The EA suggests that there will be no change in enforcement activity as a result of the FOB expansion, yet with a reduction in vehicle trips between the Ajo Station and the FOB juxtaposed with 15,000 patrol trips in the AOR it seems clear that there will be an increase in the intensity of patrols in the western portion of the AOR.

The EA for the FOB expansion project does not analyze the impacts of this increase, which are likely to be significant, especially for the endangered Sonoran pronghorn. Formal consultation with FWS under Section 7 of the Endangered Species Act is warranted for this project.

VI. Border Enforcement Activities Should Take Place on the Border, not North of El Camino del Diablo

In the 2009 FONSI and EA for the SBI*net* Ajo-1 Tower Project, the intent of the “tolerance to the depth of intrusion” was to be “as close to the international border as practical” (at page 52). However, during the Center’s tour of the CPNWR, we found far more off-road vehicle tracks, presumably from U.S. Border Patrol interdiction efforts, on the north side of El Camino del Diablo than on the south side of the road. A walking tour of the south side of El Camino del Diablo did not reveal the extent of damage from off-road vehicle use that was found on the north side. This would appear to be in conflict with the “tolerance to depth of intrusion” information that was made available in the 2009 FONSI and EA, and to which this EA is tiered. Please see photos in Attachment B.

VII. Septic system

²⁴ SBI*net* 2009 FONSI and EA at page 171.

²⁵ 2011 Ajo FOB EA at 1-5.

In the 2009 FONSI and EA for the SBInet Ajo-1 Tower Project, the septic system is described with a capacity for “up to 10 people” (at page 51). Yet in the current DEA for the Ajo FOB expansion project, the septic system is described (at page 2-6) as a “32-person, deep-discharge septic system [] installed as part of the agreement with OPCNM and USFWS when the camp moved from the Bates Well site to the current location.”

It is not clear how the septic system described in the 2009 FONSI and EA will accommodate a three-fold increase in use. It is not clear when the septic system was expanded to a 32-person deep discharge unit. It is also not clear where the NEPA documentation for the three-fold increase in septic system capacity is, or when the NEPA process for said increase occurred. This information must be made publicly available immediately.

Conclusion

The Center for Biological Diversity maintains that it is absolutely essential that border enforcement activities conform with federal laws, especially those designed to protect resources such as the OPNM and CPNWR, and endangered species such as the Sonoran pronghorn. A crucial aspect of that obligation is the need for border security agencies and personnel to observe the MOU that is place between DHS and DOI and work closely with land managers on the ground in the OPNM and CPNWR.

The profound inadequacy of the Ajo FOB EA indicates that none of the above is occurring. Neither a good faith effort to ensure that border security activities conform with relevant laws nor a conscientious effort to honor the agreements and procedures outlined in the MOU are being made. The FOB expansion project EA also indicates that, rather than concentrating enforcement efforts along the border as CBP has stated as a goal in the past, the primary focus of interdiction activities now and moving forward will be located north of Bates Well and Camino del Diablo, to the detriment of the habitat and species in the area. As an obvious remedy to the significant negative impacts now occurring, this EA should analyze an alternative enforcement strategy that focuses such activities further south, much closer to the actual border and the area in which illegal activities first impact U.S. territory and the OPNM and CPNWR.

Thank you for the opportunity to comment,

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Alliance

September 2, 2011

Submitted electronically to: David.Guzewich@dhs.gov and via fax to: (202) 344-1250

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**RE: Draft Environmental Assessment for the Proposed Ajo Forward Operating
Base, Ajo Station Area of Responsibility, U.S. Border Patrol, Tucson Sector**

To Whom It May Concern:

We are in receipt of the Draft Environmental Assessment for the Proposed Ajo Forward Operating Base dated August 2011. We, the undersigned organizations, appreciate the opportunity to provide comment on this matter.

The Arizona Wilderness Coalition (AWC) is a state-based not-for-profit organization whose mission is to permanently protect and restore wildlands and waters in Arizona for the enjoyment of all citizens while ensuring that Arizona's native plants and animals have a lasting home in wild nature. Formed in 1979, AWC has helped facilitate the designation of more than 3.5 million acres of wilderness in Arizona, including lands currently protected in Cabeza Prieta National Wildlife Refuge (CPNWR). Our 2000+ Arizona supporters are keenly interested in the health and integrity of wilderness and non-wilderness lands in Organ Pipe Cactus National Monument (OPCNM) and CPNWR.

Defenders of Wildlife (Defenders) is a national, not-for-profit conservation organization with over 522,000 members, including more than 16,500 members and activists that reside in Arizona. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities. With offices throughout the United States as well as in Canada and Mexico, we work to protect and restore North America's native wildlife, safeguard habitat, resolve conflicts, work across international borders and educate and mobilize the public. Defenders has a long history of proactive work on public lands and border policy along the U.S.-Mexico border, and thus are uniquely positioned to

substantively engage on the challenging issue of safeguarding irreplaceable natural and cultural resources while also securing our southern boundary.

Founded in 1892, the Sierra Club is the oldest and largest conservation organization in the United States, with over 1.3 million members and supporters, including 12,000 here in Arizona. The purposes of the Sierra Club are to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. We have been campaigning with a specific focus on the protection and preservation of the U.S.-Mexico borderlands in southern Arizona since 2006, and our nationally-organized Borderlands Team works to educate lawmakers, members, and the public at large about border environmental issues. Our members enjoy and have long advocated protecting the lands and wildlife affected by this action.

Sky Island Alliance (SIA) is a non-profit conservation organization dedicated to the protection and restoration of the rich natural heritage of native species and habitats in the Sky Island region of the southwestern United States and northwestern Mexico. We work with many partners to establish protected areas, restore healthy landscapes, and promote public appreciation of the region's unique biological diversity.

Below are substantive comments regarding the Draft Environmental Assessment (EA) for the Ajo Forward Operating Base (FOB):

Introduction

We support enforcement efforts within OPCNM and CPNWR that reduce impacts to the wilderness resource and ecological attributes found there, while also contributing to our border security efforts. Unfortunately, the Draft EA does not sufficiently provide appropriate analysis of major affected elements, including air, water, wildlife, and wilderness resources. A Finding of No Significant Impact (FONSI) is unwarranted and inappropriate. We note that apprehension numbers within the Tucson Sector are at their lowest level since 1994, and illegal vehicle entries have been drastically reduced as a result of vehicle barriers placed along the southern border of OPCNM and CPNWR. The SBInet Ajo-1 Tower Project EA of 2009 promised to "reduce the enforcement footprint" in the region that includes OPCNM and CPNWR, and to move "USBP traffic closer to the border." Since then, USBP vehicle traffic and associated impacts emanating from the FOB location remain intense. Increasing the capacity and footprint of the FOB would only exacerbate these impacts, and would act in contradiction to the intent of the SBInet Ajo-1 Tower Project.

Analysis of resulting increases in off-road vehicle traffic, including mitigation is lacking

In July of 2011, CPNWR issued the report "Vehicle Trails Associated with Illegal Border Activities on Cabeza Prieta National Wildlife Refuge" (CPNWR Vehicle Trails Report), which attributes the majority of 7,968 miles of vehicle ways to Border Patrol interdiction and patrol activities. The majority of these travelways are north of the Camino del

Diablo and away from the border. A large percentage of these travelways are within the coverage zone of the Ajo FOB. The Ajo FOB EA tiers upon a number of previously conducted National Environmental Policy Act (NEPA) analyses, including the 2009 Final Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project (2009 EA).

Over the course of the last several years, Border Patrol has installed a number of surveillance towers in and around OPCNM. A core assumption made by the 2009 EA states that while increased construction of roads is necessary for implementation,

“the proposed project would decrease CBV and resulting required law enforcement traffic on public roads on OPCNM and to some extent CPNWR. Increased deterrence of CBVs resulting from the proposed project would reduce the enforcement footprint generally closer to the international border, thus reducing illegal traffic and moving USBP traffic closer to the border.”¹

The 2009 EA goes further to state that the tower project will result in *“a reduced enforcement footprint for CBV interdiction activities”²*

The stated objectives and goals of the 2009 EA are inconsistent with the goals and objectives of this EA, which continues to focus law enforcement activities within the same location (whether Bates Well or the current FOB site) as that previous to installation of surveillance towers. After the construction of the SBInet infrastructure, it was our assumption and was clearly stated by Border Patrol that enforcement efforts would be “moving USBP traffic closer to the border.”³ We request clarification on how the Ajo FOB reconciles with facts and projections provided by the SBInet Ajo-1 Final EA in this regard.

The EA does not provide information or analysis of increases or decreases of all-terrain vehicle patrols as a result of the FOB expansion.

The EA states that in 2007, there were 1,564 miles of undesignated travelways in CPNWR and OPCNM. In 2011, based from field work and aerial surveys in 2008, CPNWR now estimates nearly 8000 miles of undersigned travelways in the wilderness of CPNWR alone. The Refuge states, “We believe that the pursuit of UDAs /drug smugglers has created the greater proportion of trails.”⁴ While the 2006 Memorandum of Understanding Among U.S. Department of Homeland Security and U.S. Department of Interior and U.S. Department of Agriculture Regarding Cooperative National Security and Counterterrorism Efforts on Federal Lands along the United States’ Borders (MOU) provides clear direction on how the Border Patrol should engage in motorized pursuit within designated wilderness, there is evidence that such agreement is currently not being complied with. CPNWR states that “{t}he USBP interprets this requirement (*MOU*) broadly and often goes off approved administrative trails in pursuit of fresh tracks or

¹ 2009 EA at 3.16.2.2

² Id at ES-4

³ Id

⁴ CPNWR. Vehicle Trails Associated with Illegal Border Activities on Cabeza Prieta National Wildlife Refuge – July 2011 Report.

other sign, or to respond to a signal fire or other information that may lead an agent to believe that UDAs or drug smugglers are in the area.”⁵ There is also suggestive evidence that the Border Patrol currently does not report all pursuit-related entries in the wilderness. While data have not been released from Border Patrol or CPNWR, it is difficult to assume that incursion reports fairly document the majority of off-road travelways created across the landscape.

As the CPNWR Vehicle Trails Report documents, all-terrain and four-wheel drive vehicle incursions into designated wilderness have significantly impacted the refuge. While the EA suggests that there is no net change in enforcement intensity as a result of the FOB expansion, it does state that vehicle commutes between the FOB and state route 85 will be decreased by 12,000 trips annually.⁶ The EA also states that approximately 15,000 trips are made annually in the western portion of the Ajo area of responsibility (AOR). With a reduction in vehicle trips between the FOB and the Ajo Station, but retention of 15,000 patrol trips within the AOR, it is clear that intensities of patrol will increase in the western portion of AOR. No analysis of this shift in patrol intensities and time is reflected in the draft EA though there are large consequences to such shifts. The area west of the FOB includes important habitat for species such as the endangered Sonoran pronghorn, though the draft EA does not disclose or analyze the potential for additional time, miles, and trips that would emanate from the FOB westward.

Changes in patrol intensities west of the FOB require analysis of impacts to Sonoran pronghorn

As summarized above, the draft EA does not analyze how patrol intensities will increase west of the FOB as a result of additional agents stationed there. In relation to issues regarding endangered species, the draft EA states that

*“Since CBP would continue to deploy resources to achieve its border security mission within the Ajo Station AOR regardless of the establishment of the Ajo FOB, there are no interrelated or interdependent activities to be analyzed for ESA compliance”.*⁷

While the premise of the project is to decrease commute times between the Ajo station and the FOB, it also increases the frequency of patrols in the western portion of AOR. The western portion of AOR includes Sonoran pronghorn occupied habitat; there is evidence that pronghorn avoid areas with high intensities of traffic.

USFWS states that *“evidence suggests pronghorn are avoiding areas of high CBV [cross border violator] and enforcement activities. Historically, pronghorn tended to migrate to the southeastern section of their range (southeastern CPNWR, such as south of El Camino del Diablo, and OPCNM, such as the Valley of the Ajo) during drought and in the summer. Within the last several years, very few pronghorn have been observed south of El Camino del Diablo*

⁵ Id

⁶ EA at 3-21, line 7

⁷ EA at 3-15, Lines 12-14

on CPNWR. This suggests CBV and the interdiction of these illegal activities have resulted in pronghorn avoiding areas south of El Camino del Diablo; these areas are considered important summer habitat for pronghorn and may have long-term management and recovery implications... Additionally, after the establishment of a Forward Operating Base (FOB) at Bates Well, which was located in the middle of an extremely critical and narrow Sonoran pronghorn movement corridor (Bates Pass) on OPCNM, few pronghorn have been documented using the Valley of the Ajo, and no pronghorn have been documented entering the Valley of the Ajo through the Bates Pass area... The valleys at CPNWR and OPCNM, which were once nearly pristine Sonoran Desert Wilderness, now have many braided, unauthorized routes through them and significant vehicle use by USBP pursuing CBVs[.]”⁸

As such, formal consultation under Section 7 of the Endangered Species Act is warranted for this draft EA. Given the inconsistency of statements facts regarding enforcement intensity shifts between the 2009 EA and this draft EA, which increases patrol intensity within occupied pronghorn habitat, Border Patrol cannot rely on previous opinions provided by USFWS.

The use of horse patrols is not addressed

The FONSI of 2009 Final Environmental Assessment for the Proposed SBInet Ajo-1 Tower Project provided a clear commitment by Border Patrol to emphasize horse patrols in the AOR. During appropriate times of year, we support the use of horse patrols as a practical, conforming enforcement strategy. The EA states:

“Consistent with 2006 MOU, USBP will conduct patrol activities by horseback to the greatest extent practicable within the Sonoran pronghorn range, particularly from March 15 to July 31 (the Sonoran pronghorn closure season). DHS will follow all horse patrol BMPs coordinated with resource agencies (i.e., feed horses weed free pellets).”

The EA for FOB expansion makes no mention of facilities and capabilities directed at use of horse patrols within designated wilderness and sensitive habitat areas. Any apparatus aimed at patrolling these areas should focus primarily on horse patrols for maximum protection of wilderness resources. Horse patrol units within the Border Patrol have a long history of success and provide agents with unique capabilities for patrol and interdiction. Does the expanded FOB include infrastructure for the eminence of stock during appropriate times of year?

Conclusion

Our organizations support border enforcement activities that act in conformance with federal laws, such as those that govern the management of OPCNM and CPNWR. We believe that the protection of natural resources is not incompatible with the protection of our national security, and support Border Patrol efforts to conform with its own

⁸ Fish and Wildlife Letter in Response to request for Re-initiation of Formal Consultation on the SBInet Ajo-1 Tower Project, Ajo Area of Responsibility, U.S. Border Patrol, Tucson Sector, Arizona, pages 6-7.

guidelines and procedures, as well as to work in collaboration with federal land management agencies. The analysis of impacts associated with the expansion of the Ajo FOB is woefully inadequate, and cannot be represented as a fair attempt to conform to the laws that govern our nation. The draft EA also contradicts previous plans by the Border Patrol to focus enforcement efforts at the border in this exceptionally fragile region rather than a primary strategy of interdiction efforts north of Bates Well and the Camino del Diablo Roads. To expand the FOB while unauthorized crossing numbers are exceptionally low would unnecessarily endanger the fragile and precious resources of the OPCNM and CPNWR.

Thank you for this opportunity to comment.

Sincerely,

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From: laura chamberlin <johnsol@hotmail.com>

To: GUZEWICH, DAVID C

Sent: Sat Sep 03 13:44:33 2011

Subject: comment on Cabeza Prieta

Dear Mr. Guzewich,

As a concerned citizen I appreciate the opportunity to comment upon the Department of Homeland Security's proposal to expand the Ajo Forward Operating Base.

I have been visitng Cabeza Prieta National Wildlife Refuge and Oregon Pipe National Park for over a decade. With each passing visit I noticed more and more border patrol presence. While I appreciate the need to protect our borders I think a precious resource has been sacraficed. I have personally witnessed destruction to cryptogamic soils by off road vehicle use. At a qucik glance the soil may not be noticed but when one looks closely, it is every where. These soils take decades to form and are imparative to desert life as they provide a healthy environment.

Many plants (420) and animals (300) depend on this area for life and it all revolves around a delicate balance of their environment. The endangered Sonoran Pronghorn and The Lesser Long-Nosed bats are just a few of the animals that need our attention. If the off road presence continues with no regard to their lively hood than it pains me to think of their future.

My experience at Cabeza Prieta leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge.

I have reluctantly stopped visitng the Refuge to do this activity. I go to "get away from it all," but no longer feel it is a tranquil experience. I have always had pleasant experiences with the border patrol agents and appreciate that we need their presence. However, I believe a balance needs to be struck and wilderness preservation should be paramount. We have a beautiful National treasure that deserves protection for our generation and the future.

I ask that the Department of Homeland Security take another look at the need for this project and develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.

Sincerely,
Laura Chamberlin

From: Keri Dixon [mailto:keribdixon@gmail.com]
Sent: Friday, September 02, 2011 5:10 PM
To: GUZEWICH, DAVID C
Subject: Ajo, AZ FOB

Dear Mr. Guzewich,

As a member of the Center for Biological Diversity and Sky Island Alliance, and as a visitor to the Organ Pipe National Monument and Cabeza Prieta National Wildlife Refuge, I appreciate the opportunity to comment upon the Department of Homeland Security's proposal to expand the Ajo Forward Operating Base.

I adopt and incorporate by reference the comments submitted by the Center for Biological Diversity.

My first hand experiences on the Refuge in the area of the Forward Operating Base leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge. I have many friends who used to visit the refuge regularly but who no longer visit at all because of the excessive number of Border Patrol agents driving around 24 hours a day. Not one of the people I know has ever had a negative experience with "cross border violators" and it seems as if "CBV" numbers are significantly down for this area.

I personally visited the refuge and monument less often in the past few years because of the excessive noise, dust and degraded landscapes. However, I miss the picturesque views and wildlife experiences I used to have when there was less border patrol presence.

I sincerely ask that the Department of Homeland Security take another look at the need for this project. I urge you to develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.

Best regards,
Keri Dixon
Tucson, AZ

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"Unless someone like you cares a whole awful lot, nothing is going to get better, it's not."
The Lorax, by Dr. Seuss

From: Cyndi Tuell [mailto:cctuell@hotmail.com]

Sent: Friday, September 02, 2011 4:18 PM

To: GUZEWICH, DAVID C

Subject: Draft Environmental Assessment for the Proposed Ajo Forward Operating Base Ajo Station's Area of Responsibility U.S. Border Patrol Ajo Sector

Dear Mr. Guzewich,

As a member of the Center for Biological Diversity and a recent visitor to the Organ Pipe National Monument and Cabeza Prieta National Wildlife Refuge, I appreciate the opportunity to comment upon the Department of Homeland Security's proposal to expand the Ajo Forward Operating Base.

I adopt and incorporate by reference the comments submitted by the Center for Biological Diversity.

My first hand experiences on the Refuge in the area of the Forward Operating Base leads me to believe that Border Patrol agents need to be educated on the impacts they are having to Refuge resources and visitors to the Refuge. I have many friends who used to visit the refuge regularly but who no longer visit at all because of the excessive number of Border Patrol agents driving around 24 hours a day. Not one of the people I know has ever had a negative experience with "cross border violators" and it seems as if "CBV" numbers are significantly down for this area.

I ask that the Department of Homeland Security take another look at the need for this project and develop alternatives that address the need to secure the border while at the same time the need to protect America's natural treasures.

Sincerely,
Cyndi Tuell

APPENDIX C
FEDERAL AND STATE PROTECTED SPECIES LISTS



U.S. Fish & Wildlife Service

Endangered Species List

[Back to Start](#)

List of species by county for Arizona:



























Counties Selected: Pima



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

Apache
Cochise
Coconino
Gila
Graham

[View County List](#)

Pima County

<u>Common Name</u>	<u>Scientific Name</u>	<u>Species Group</u>	<u>Listing Status</u>	<u>Species Image</u>	<u>Species Distribution Map</u>	<u>Critical Habitat</u>	<u>More Info</u>
Acuna Cactus	<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>	Flowering Plants	C				P
California least tern	<i>Sterna antillarum browni</i>	Birds	E	No Image			P
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	Amphibians	T				P
desert pupfish	<i>Cyprinodon macularius</i>	Fishes	E			Final	P
Gila chub	<i>Gila intermedia</i>	Fishes	E			Final	P
Gila topminnow (incl. Yaqui)	<i>Poeciliopsis occidentalis</i>	Fishes	E				P
Huachuca water-umbel	<i>Lilaeopsis schaffneriana</i> var. <i>recurva</i>	Flowering Plants	E				P
jaguar	<i>Panthera onca</i>	Mammals	E				P
Kearney's blue-star	<i>Amsonia kearneyana</i>	Flowering Plants	E				P
lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuenae</i>	Mammals	E				P
masked bobwhite (quail)	<i>Colinus virginianus ridgwayi</i>	Birds	E				P
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Birds	T			Final	P
Nichol's Turk's head cactus	<i>Echinocactus horizonthalonius</i> var. <i>nicholii</i>	Flowering Plants	E				P
Northern Mexican	<i>Thamnophis eques megalops</i>	Reptiles	C	No Image			P

gartersnake							
ocelot	<i>Leopardus (=Felis) pardalis</i>	Mammals	E				
Pima pineapple cactus	<i>Coryphantha scheeri</i> var. <i>robustispina</i>	Flowering Plants	E				
Sonoran pronghorn	<i>Antilocapra americana sonoriensis</i>	Mammals	E				
Sonoyta mud turtle	<i>Kinosternon sonoriense longifemorale</i>	Reptiles	C				
southwestern willow flycatcher	<i>Empidonax traillii eximius</i>	Birds	E			Final	
yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Birds	C				

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Navajo	PLANT	Pediocactus peeblesianus var. peeblesianus	Peebles Navajo Cactus	PDCAC0E053	LE					HS	G1G2T1	S1
Navajo	PLANT	Penstemon nudiflorus	Flagstaff Beardtongue	PDSCR1L4A0			S				G2G3	S2S3
Navajo	PLANT	Platanthera zothecina	Alcove Bog-orchid	PMORC1Y130	SC		S	3			G2	S2
Navajo	REPTILE	Thamnophis eques megalops	Northern Mexican Gartersnake	ARADB36061	C		S		A	WSC	G5T5	S1
Navajo	REPTILE	Thamnophis rufipunctatus	Narrow-headed Gartersnake	ARADB36110	SC	S	S			WSC	G3G4	S1
Pima	AMPHIBIAN	Craugastor augusti cactorum	Western Barking Frog	AAABD04171		S	S			WSC	G5T5	S2
Pima	AMPHIBIAN	Gastrophryne olivacea	Western Narrow-mouthed Toad	AAABE01020		S	S		PR	WSC	G5	S3
Pima	AMPHIBIAN	Rana chiricahuensis	Chiricahua Leopard Frog	AAABH01080	LT				A	WSC	G3	S2
Pima	AMPHIBIAN	Rana yavapaiensis	Lowland Leopard Frog	AAABH01250	SC	S	S		PR	WSC	G4	S3
Pima	AMPHIBIAN	Smilisca fodiens	Lowland Burrowing Treefrog	AAABC06010		S				WSC	G4	S2
Pima	BIRD	Accipiter gentilis	Northern Goshawk	ABNKC12060	SC	S	S	4	A	WSC	G5	S3B
Pima	BIRD	Ammodramus bairdii	Baird's Sparrow	ABPBXA0010	SC	S	S			WSC	G4	S2N
Pima	BIRD	Ammodramus savannarum ammodramus	Arizona grasshopper sparrow	ABPBXA0021			S				G5TU	S2
Pima	BIRD	Athene cunicularia hypugaea	Western Burrowing Owl	ABNSB10012	SC	S	S	4	A		G4T4	S3
Pima	BIRD	Buteo albonotatus	Zone-tailed Hawk	ABNKC19090			S				G4	S4
Pima	BIRD	Buteo nitidus maxima	Northern Gray Hawk	ABNKC19011	SC	S	S		PR	WSC	G5T4Q	S3
Pima	BIRD	Buteo swainsoni	Swainson's Hawk	ABNKC19070		S	S				G5	S3
Pima	BIRD	Buteogallus anthracinus	Common Black-Hawk	ABNKC15010		S	S		A	WSC	G4G5	S3
Pima	BIRD	Camptostoma imberbe	Northern Beardless-Tyrannulet	ABPAE04010			S				G5	S4
Pima	BIRD	Caprimulgus ridgwayi	Buff-collared Nightjar	ABNTA07060			S				G5	S2S3
Pima	BIRD	Caracara cheriway	Crested Caracara	ABNKD02020	No Status					WSC	G5	S1S2
Pima	BIRD	Coccyzus americanus	Yellow-billed Cuckoo (Western U.S. DPS)	ABNRB02020	C		S	2		WSC	G5	S3
Pima	BIRD	Colinus virginianus ridgwayi	Masked Bobwhite	ABNLC21022	LE				P	WSC	G5T1	S1
Pima	BIRD	Dendrocygna autumnalis	Black-bellied Whistling-Duck	ABNJB01040						WSC	G5	S3
Pima	BIRD	Dendrocygna bicolor	Fulvous Whistling-Duck	ABNJB01010	SC						G5	SAN
Pima	BIRD	Empidonax fulvifrons pygmaeus	Northern Buff-breasted Flycatcher	ABPAE33141	SC		S			WSC	G5T5	S1
Pima	BIRD	Empidonax traillii extimus	Southwestern Willow Flycatcher	ABPAE33043	LE			2		WSC	G5T1T2	S1
Pima	BIRD	Falco peregrinus anatum	American Peregrine Falcon	ABNKD06071	SC	S	S	4	A	WSC	G4T4	S4
Pima	BIRD	Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	ABNSB08041	SC	S	S		A	WSC	G5T3	S1

BW1 FOIA CBP 007242

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Pima	BIRD	Pachyrhamphus aglaiae	Rose-throated Becard	ABPAE53070			S			WSC	G4G5	S1
Pima	BIRD	Pandion haliaetus	Osprey	ABNKC01010		S				WSC	G5	S2B,S4N
Pima	BIRD	Polioptila nigriceps	Black-capped Gnatcatcher	ABPBJ08040						WSC	G5	S1
Pima	BIRD	Rallus longirostris yumanensis	Yuma Clapper Rail	ABNME0501A	LE				P	WSC	G5T3	S3
Pima	BIRD	Strix occidentalis lucida	Mexican Spotted Owl	ABNSB12012	LT			3	A	WSC	G3T3	S3S4
Pima	BIRD	Trogon elegans	Elegant Trogon	ABNWA02070						WSC	G5	S3
Pima	BIRD	Tyrannus crassirostris	Thick-billed Kingbird	ABPAE52040		S	S			WSC	G5	S2
Pima	BIRD	Tyrannus melancholicus	Tropical Kingbird	ABPAE52010						WSC	G5	S3
Pima	FISH	Agosia chrysogaster chrysogaster	Gila Longfin Dace	AFCJB37151	SC	S	S		A		G4T3T4	S3S4
Pima	FISH	Catostomus clarkii	Desert Sucker	AFCJC02040	SC	S	S				G3G4	S3S4
Pima	FISH	Cyprinodon eremus	Quitobaquito Pupfish	AFCNB02140	LE					WSC	G1	S1
Pima	FISH	Cyprinodon macularius	Desert Pupfish	AFCNB02060	LE				P	WSC	G1	S1
Pima	FISH	Gila intermedia	Gila Chub	AFCJB13160	LE				P	WSC	G2	S2
Pima	FISH	Poeciliopsis occidentalis occidentalis	Gila Topminnow	AFCNC05021	LE				A	WSC	G3T3	S1S2
Pima	INVERTEBRATE	Argia sabino	Sabino Canyon Dancer	IIDO068100	SC		S				G1G2	S2
Pima	INVERTEBRATE	Sonorella eremita	San Xavier Talussnail	IMGASC9240	SC						G1	S1
Pima	INVERTEBRATE	Sonorella rosemontensis	Rosemont Talussnail	IMGASC9520	C						G3	S1
Pima	INVERTEBRATE	Tryonia quitobaquiae	Quitobaquito Tryonia	IMGASJ7130	SC						G1	S1
Pima	MAMMAL	Antilocapra americana sonoriensis	Sonoran Pronghorn	AMALD01012	LE				P	WSC	G5T1	S1
Pima	MAMMAL	Baiomys taylori	Northern Pygmy Mouse	AMAFF05010			S				G4G5	S3
Pima	MAMMAL	Choeronycteris mexicana	Mexican Long-tongued Bat	AMACB02010	SC	S	S		A	WSC	G4	S3
Pima	MAMMAL	Corynorhinus townsendii pallascens	Pale Townsend's Big-eared Bat	AMACC08014	SC	S	S	4			G4T4	S3S4
Pima	MAMMAL	Cynomys ludovicianus	Black-tailed Prairie Dog	AMAFB06010	SC	S	S		A	WSC	G4	SXS1
Pima	MAMMAL	Eumops perotis californicus	Greater Western Bonneted Bat	AMACD02011	SC	S	S				G5T4	S3
Pima	MAMMAL	Eumops underwoodi	Underwood's Bonneted Bat	AMACD02020	SC						G4	S1
Pima	MAMMAL	Lasiurus blossevillei	Western Red Bat	AMACC05060		S	S			WSC	G5	S3
Pima	MAMMAL	Lasiurus xanthinus	Western Yellow Bat	AMACC05070		S	S			WSC	G5	S2S3
Pima	MAMMAL	Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	AMACB03030	LE					WSC	G4	S2S3
Pima	MAMMAL	Macrotus californicus	California Leaf-nosed Bat	AMACB01010	SC	S	S			WSC	G4	S3

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Pima	MAMMAL	Myotis occultus	Arizona Myotis	AMACC01160	SC						G3G4	S3
Pima	MAMMAL	Myotis thysanodes	Fringed Myotis	AMACC01090	SC						G4G5	S3S4
Pima	MAMMAL	Myotis velifer	Cave Myotis	AMACC01050	SC						G5	S3S4
Pima	MAMMAL	Notiosorex cockrumi	Cockrum's Desert Shrew	AMABA05020			S				GNR	S1
Pima	MAMMAL	Nyctinomops femorosaccus	Pocketed Free-tailed Bat	AMACD04010			S				G4	S3
Pima	MAMMAL	Nyctinomops macrotis	Big Free-tailed Bat	AMACD04020	SC						G5	S3
Pima	MAMMAL	Panthera onca	Jaguar	AMAJH02010	LE				P	WSC	G3	S1
Pima	MAMMAL	Peromyscus merriami	Merriam's Mouse	AMAFF03020			S				G5	S2
Pima	MAMMAL	Reithrodontomys fulvescens	Fulvous Harvest Mouse	AMAFF02050			S				G5	S4
Pima	MAMMAL	Reithrodontomys montanus	Plains Harvest Mouse	AMAFF02010			S				G5	S3
Pima	MAMMAL	Sciurus arizonensis	Arizona Gray Squirrel	AMAFB07060			S		A		G4	S4
Pima	MAMMAL	Sigmodon ochrognathus	Yellow-nosed Cotton Rat	AMAFF07040	SC		S				G4G5	S4
Pima	PLANT	Abutilon parishii	Pima Indian Mallow	PDMAL020E0	SC	S	S			SR	G2	S2
Pima	PLANT	Abutilon thurberi	Thurber Indian Mallow	PDMAL020P0						SR	G2?	S1
Pima	PLANT	Agave parviflora ssp. parviflora	Santa Cruz Striped Agave	PMAGA010L2	SC		S		A	HS	G3T3	S3
Pima	PLANT	Agave schottii var. treleasei	Trelease Agave	PMAGA010N2	SC		S			HS	G5T1Q	S1
Pima	PLANT	Allium gooddingii	Goodding Onion	PMLIL02120	SC		S	3		HS	G4	S3S4
Pima	PLANT	Allium plummerae	Plummer Onion	PMLIL021V0						SR	G4	S3
Pima	PLANT	Amoreuxia gonzalezii	Saiya	PDBIX01010	SC		S			HS	G1	S1
Pima	PLANT	Amsonia grandiflora	Large-flowered Blue Star	PDAP03060	SC		S				G2	S2
Pima	PLANT	Amsonia kearneyana	Kearney's Blue-star	PDAP030M0	LE					HS	G1	S1
Pima	PLANT	Arabis tricornuta	Chiricahua Rock Cress	PDBRA06200			S				G1?	S1?
Pima	PLANT	Asclepias lemmonii	Lemmon Milkweed	PDASC020Z0			S				G4?	S2
Pima	PLANT	Asplenium dalhousiae	Dalhousie Spleenwort	PPASP020A0		S					GNR	S1
Pima	PLANT	Berberis harrisoniana	Kofa Mt Barberry	PDBER02030		S					G1G2	S1S2
Pima	PLANT	Capsicum annuum var. glabriusculum	Chiltepin	PDSOL06012			S				G5T5	S2
Pima	PLANT	Carex chihuahuensis	Chihuahuan Sedge	PMCYP032T0			S				G3G4	S2S3
Pima	PLANT	Carex ultra	Arizona Giant Sedge	PMCYP03E50		S	S				G3?	S2
Pima	PLANT	Coryphantha scheeri var. robustispina	Pima Pineapple Cactus	PDCAC040C1	LE					HS	G4T2	S2

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Pima	PLANT	Cylindropuntia x kelvinensis	Kelvin Cholla	PDCAC0D2M0						SR	GNA	SHYB
Pima	PLANT	Dalea tentaculoides	Gentry Indigo Bush	PDFAB1A1K0	SC	S	S			HS	G1	S1
Pima	PLANT	Echinocactus horizonthalonius var. nicholii	Nichol Turk's Head Cactus	PDCAC05022	LE					HS	G4T2	S2
Pima	PLANT	Echinocereus fasciculatus	Magenta-flower Hedgehog-cactus	PDCAC06065						SR	G4G5T4T5	S3
Pima	PLANT	Echinomastus erectocentrus var. acunensis	Acuna Cactus	PDCAC0J0E1	C				P	HS	G3T1T2Q	S1
Pima	PLANT	Echinomastus erectocentrus var. erectocentrus	Needle-spined Pineapple Cactus	PDCAC0J0E2	SC					SR	G3T3Q	S3
Pima	PLANT	Erigeron arisolius	Arid Throne Fleabane	PDAST3M510			S				G2	S2
Pima	PLANT	Eriogonum capillare	San Carlos Wild-buckwheat	PDPGN08100	SC					SR	G4	S4
Pima	PLANT	Eriogonum ericifolium var. ericifolium	Heathleaf Wild-buckwheat	PDPGN08231			S				G3T2	S2
Pima	PLANT	Eriogonum terrenatum	San Pedro River Wild Buckwheat	PDPGN08760		S					G1	S1
Pima	PLANT	Ferocactus cylindraceus	Desert Barrel Cactus	PDCAC08080					PR	SR	G5	S4
Pima	PLANT	Ferocactus emoryi	Emory's Barrel-cactus	PDCAC08090						SR	G4	S1S2
Pima	PLANT	Graptopetalum bartramii	Bartram Stonecrop	PDCRA06010	SC	S	S			SR	G3	S3
Pima	PLANT	Heterotheca rutteri	Huachuca Golden Aster	PDAST4V0J0	SC	S	S				G2	S2
Pima	PLANT	Hexalectris revoluta	Chisos Coral-root	PMORC1C030			S				G1G2	S1
Pima	PLANT	Hexalectris spicata	Crested Coralroot	PMORC1C040						SR	G5	S3S4
Pima	PLANT	Hieracium pringlei	Pringle Hawkweed	PDAST4W170	SC						G2Q	S1
Pima	PLANT	Lilaeopsis schaffneriana var. recurva	Huachuca Water-umbel	PDAP119051	LE					HS	G4T2	S2
Pima	PLANT	Lilium parryi	Lemmon Lily	PMLIL1A0J0	SC		S			SR	G3	S2
Pima	PLANT	Listera convallarioides	Broadleaf Twayblade	PMORC1N050						SR	G5	S1
Pima	PLANT	Lophocereus schottii	Senita	PDCAC14010						SR	G4	S1S2
Pima	PLANT	Lupinus huachucanus	Huachuca Mountain Lupine	PDFAB2B210			S				G2	S2
Pima	PLANT	Lysiloma watsonii	Littleleaf False Tamarind	PDFAB2C040						SR	G4?	S1
Pima	PLANT	Malaxis tenuis	Slender Adders Mouth	PMORC1R090						SR	G4	S1
Pima	PLANT	Mammillaria mainiae	Counter Clockwise Fishhook Cactus	PDCAC0A060			S			SR	G3	S1
Pima	PLANT	Mammillaria thornberi	Thornber Fishhook Cactus	PDCAC0A0C0						SR	G4	S4
Pima	PLANT	Mammillaria viridiflora	Varied Fishhook Cactus	PDCAC0A0D0						SR	G4	S4
Pima	PLANT	Manihot davisiae	Arizona Manihot	PDEUP0Z010			S				G4	S2
Pima	PLANT	Metastelma mexicanum	Wiggins Milkweed Vine	PDASC050P0	SC		S				G3G4	S1S2

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Pima	PLANT	Muhlenbergia dubioides	Box Canyon Muhly	PMPOA480G0			S				G1Q	S1
Pima	PLANT	Muhlenbergia xerophila	Weeping Muhly	PMPOA48220			S				G3	S1
Pima	PLANT	Notholaena lemmonii	Lemmon Cloak Fern	PPADI0G0D0	SC						G3?	S1S2
Pima	PLANT	Opuntia engelmannii var. flavispina		PDCAC0D224						SR	G5T3?	S3?
Pima	PLANT	Opuntia versicolor	Stag-horn Cholla	PDCAC0D1K0						SR	G4	S2S3
Pima	PLANT	Passiflora arizonica	Arizona Passionflower	PDPAS01073			S				G5T3T5	S2
Pima	PLANT	Pectis imberbis	Beardless Chinch Weed	PDAST6W0A0	SC		S				G3	S1
Pima	PLANT	Peniocereus greggii var. transmontanus	Desert Night-blooming Cereus	PDCAC0V012					PR	SR	G3G4T3T4	S3S4
Pima	PLANT	Peniocereus striatus	Dahlia Rooted Cereus	PDCAC0V020						SR	G4	S1
Pima	PLANT	Penstemon discolor	Catalina Beardtongue	PDSCR1L210			S			HS	G2	S2
Pima	PLANT	Perityle ajoensis	Ajo Rock Daisy	PDAST700Y0						SR	G1	S1
Pima	PLANT	Physalis latiphysa	Broad-leaf Ground-cherry	PDSOL0S0H0			S				G1	S1
Pima	PLANT	Platanthera limosa	Thurber's Bog Orchid	PMORC1Y0G0						SR	G4	S4
Pima	PLANT	Psilotum nudum	Whisk Fern	PPPSI01020			S			HS	G5	S1
Pima	PLANT	Samolus vagans	Chiricahua Mountain Brookweed	PDPRI09040			S				G2?	S2
Pima	PLANT	Schiedeella arizonica	Fallen Ladies'-tresses	PMORC67020						SR	GNR	S4
Pima	PLANT	Senecio neomexicanus var. toumeyi	Toumey Groundsel	PDAST8H274			S				G5T2Q	S2
Pima	PLANT	Sisyrinchium cernuum	Nodding Blue-eyed Grass	PMIRI0D0B0			S				G5	S2
Pima	PLANT	Stenocereus thurberi	Organ Pipe Cactus	PDCAC10020						SR	G5	S4
Pima	PLANT	Stevia lemmonii	Lemmon's Stevia	PDAST8V010			S				G3G4	S2
Pima	PLANT	Thelypteris puberula var. sonorensis	Aravaipa Wood Fern	PPTHE05192		S	S				G5T3	S2
Pima	PLANT	Tragia laciniata	Sonoran Noseburn	PDEUP1D060			S				G3G4	S3?
Pima	PLANT	Triteleopsis palmeri	Blue Sand Lily	PMLIL22010		S				SR	G3	S1
Pima	PLANT	Tumamoca macdougalii	Tumamoc Globeberry	PDCUC0S010		S	S			SR	G4	S3
Pima	PLANT	Vauquelinia californica ssp. sonorensis	Arizona Sonoran Rosewood	PDROS1R024		S					G4T1	S1
Pima	PLANT	Viola umbraticola	Shade Violet	PDVIO042E0			S				G3G4	S2?
Pima	REPTILE	Aspidoscelis burti stictogrammus	Giant Spotted Whiptail	ARACJ02011	SC		S				G4T4	S2
Pima	REPTILE	Aspidoscelis xanthonota	Redback Whiptail	ARACJ02012	SC						G4T2	S2
Pima	REPTILE	Chionactis occipitalis klauberi	Tucson Shovel-nosed Snake	ARADB05012	C	S					G5T3Q	S1

COUNTY	TAXON	SCIENTIFIC NAME	COMMON NAME	ELCODE	ESA	BLM	USFS	NESL	MEXFED	STATE	GRANK	S RANK
Pima	REPTILE	Gopherus agassizii (Sonoran Population)	Sonoran Desert Tortoise	ARAAF01013	SC	S	S		A	WSC	G4T4	S4
Pima	REPTILE	Heloderma suspectum suspectum	Reticulate Gila Monster	ARACE01012			S		A		G4T4	S4
Pima	REPTILE	Kinosternon sonoriense longifemorale	Sonoyta Mud Turtle	ARAAE01041	C						G4T1	S1
Pima	REPTILE	Lichanura trivirgata trivirgata	Mexican Rosy Boa	ARADA01023	SC	S					G4G5T3	S1S2
Pima	REPTILE	Oxybelis aeneus	Brown Vinesnake	ARADB24010			S			WSC	G5	S1
Pima	REPTILE	Phrynosoma cornutum	Texas Horned Lizard	ARACF12010	SC				A		G4G5	S3S4
Pima	REPTILE	Phyllorhynchus browni	Saddled Leaf-nosed Snake	ARADB25010			PS		PR		G5	S5
Pima	REPTILE	Plestiodon callicephalus	Mountain Skink	ARACH01030			S				G4G5	S2
Pima	REPTILE	Sceloporus slevini	Slevin's Bunchgrass Lizard	ARACF14180			S				G4	S2
Pima	REPTILE	Senticolis triaspis intermedia	Northern Green Ratsnake	ARADB44011			S				G5T4	S3
Pima	REPTILE	Thamnophis eques megalops	Northern Mexican Gartersnake	ARADB36061	C		S		A	WSC	G5T5	S1
Pima	REPTILE	Uma rufopunctata	Yuman Desert Fringe-toed Lizard	ARACF15040	SC	S			A	WSC	G3	S2
Pinal	AMPHIBIAN	Gastrophryne olivacea	Western Narrow-mouthed Toad	AAABE01020		S	S		PR	WSC	G5	S3
Pinal	AMPHIBIAN	Rana yavapaiensis	Lowland Leopard Frog	AAABH01250	SC	S	S		PR	WSC	G4	S3
Pinal	BIRD	Ardea alba	Great Egret	ABNGA04040		S				WSC	G5	S1B,S4N
Pinal	BIRD	Athene cunicularia hypugaea	Western Burrowing Owl	ABNSB10012	SC	S	S	4	A		G4T4	S3
Pinal	BIRD	Buteo albonotatus	Zone-tailed Hawk	ABNKC19090			S				G4	S4
Pinal	BIRD	Buteo nitidus maxima	Northern Gray Hawk	ABNKC19011	SC	S	S		PR	WSC	G5T4Q	S3
Pinal	BIRD	Buteo swainsoni	Swainson's Hawk	ABNKC19070		S	S				G5	S3
Pinal	BIRD	Buteogallus anthracinus	Common Black-Hawk	ABNKC15010		S	S		A	WSC	G4G5	S3
Pinal	BIRD	Camptostoma imberbe	Northern Beardless-Tyrannulet	ABPAE04010			S				G5	S4
Pinal	BIRD	Caprimulgus ridgwayi	Buff-collared Nightjar	ABNTA07060			S				G5	S2S3
Pinal	BIRD	Coccyzus americanus	Yellow-billed Cuckoo (Western U.S. DPS)	ABNRB02020	C		S	2		WSC	G5	S3
Pinal	BIRD	Dendrocygna autumnalis	Black-bellied Whistling-Duck	ABNJB01040						WSC	G5	S3
Pinal	BIRD	Empidonax traillii extimus	Southwestern Willow Flycatcher	ABPAE33043	LE			2		WSC	G5T1T2	S1
Pinal	BIRD	Falco peregrinus anatum	American Peregrine Falcon	ABNKD06071	SC	S	S	4	A	WSC	G4T4	S4
Pinal	BIRD	Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	ABNSB08041	SC	S	S		A	WSC	G5T3	S1
Pinal	BIRD	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	ABNKC10015	SC	S	S	2	P	WSC	G5TNR	S4N
Pinal	BIRD	Haliaeetus leucocephalus pop. 3	Bald Eagle - Sonoran Desert area Population	ABNKC10014	LT,DPS	S	S	2	P	WSC	G5TNR	S2S3

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APPENDIX D
AIR QUALITY CALCULATIONS

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-CONSTRUCTION

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	8	240	1152000
Diesel Road Compactors	1	100	8	60	48000
Diesel Dump Truck	1	300	8	240	576000
Diesel Excavator	1	300	8	180	432000
Diesel Hole Trenchers	1	175	8	180	252000
Diesel Bore/Drill Rigs	1	300	8	180	432000
Diesel Cement & Mortar Mixers	1	300	8	240	576000
Diesel Cranes	1	175	8	240	336000
Diesel Graders	1	300	8	40	96000
Diesel Tractors/Loaders/Backhoes	1	100	8	180	144000
Diesel Bull Dozers	1	300	8	180	432000
Diesel Front End Loaders	2	300	8	180	864000
Diesel Fork Lifts	2	100	8	240	384000
Diesel Generator Set	2	40	8	240	153600

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-CONSTRUCTION

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.559	2.628	6.970	0.520	0.508	0.939	680.454
Diesel Road Paver	0.020	0.078	0.259	0.018	0.017	0.039	28.363
Diesel Dump Truck	0.279	1.314	3.485	0.260	0.254	0.470	340.227
Diesel Excavator	0.162	0.619	2.190	0.152	0.148	0.352	255.313
Diesel Hole Cleaners\Trenchers	0.142	0.678	1.613	0.128	0.122	0.206	148.794
Diesel Bore/Drill Rigs	0.286	1.090	3.404	0.238	0.233	0.348	252.171
Diesel Cement & Mortar Mixers	0.387	1.473	4.621	0.305	0.298	0.463	336.228
Diesel Cranes	0.163	0.481	2.118	0.126	0.122	0.270	196.318
Diesel Graders	0.037	0.144	0.500	0.035	0.034	0.078	56.736
Diesel Tractors/Loaders/Backhoes	0.294	1.303	1.146	0.217	0.211	0.151	109.669
Diesel Bull Dozers	0.171	0.657	2.266	0.157	0.152	0.352	255.313
Diesel Front End Loaders	0.362	1.476	4.761	0.333	0.324	0.705	510.531
Diesel Aerial Lifts	0.838	3.284	3.622	0.588	0.571	0.402	292.324
Diesel Generator Set	0.205	0.636	1.011	0.124	0.120	0.137	99.411
Total Emissions	3.903	15.860	37.965	3.202	3.115	4.912	3561.853

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS-CONSTRUCTION

Construction Worker Personal Vehicle Commuting to Construction Site-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	20	20	0.43	0.51	0.94
CO	12.4	15.7	60	240	20	20	3.94	4.98	8.92
NOx	0.95	1.22	60	240	20	20	0.30	0.39	0.69
PM-10	0.0052	0.0065	60	240	20	20	0.00	0.00	0.00
PM 2.5	0.0049	0.006	60	240	20	20	0.00	0.00	0.00
CO2	369	511	60	240	20	20	117.11	162.18	279.29

Heavy Duty Trucks Delivery Supply Trucks to Construction Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02
CO2	536	536	60	240	2	2	17.01	17.01	34.02

Daily Commute New Staff Associated with Proposed Action									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	40	365			-	0.00	-
CO	12.4	15.7	40	365			-	0.00	-
NOx	0.95	1.22	40	365			-	0.00	-
PM-10	0.0052	0.0065	40	365			-	0.00	-
PM 2.5	0.0049	0.006	40	365			-	0.00	-
CO2	369	511	40	365			-	0.00	-

Truck Emission Factor Source: MOBILE6.2 USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway.

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS-CONSTRUCTION

Conversion factor:	gms to tons
	0.000001102

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks;
<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>

CARBON EQUIVALENTS

Construction Commuters	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	23.57	
NOx	311	0.69	
Total		24.25	303.54

Delivery Trucks	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	0.67	
NOx	311	173.42	
Total		174.09	208.11

Kirtland AFB staff and Students	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	-	
NOx	311	-	
Total		-	-

ONGOING EMISSIONS FROM DISEIL GENERATOR

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Diesel Generator Set	1	286	4	24	27456

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Diesel Generator Set	1.21	3.76	5.97	0.73	0.71	0.81	587.3

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Diesel Generator Set	0.037	0.114	0.181	0.022	0.021	0.025	17.770
Total Emissions	0.037	0.114	0.181	0.022	0.021	0.025	17.770

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-FUGITIVE DUST-CONSTRUCTION

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
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Control Efficiency

0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006
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Project Assumptions

Construction Area (0.19 ton PM10/acre-month)

Duration of Construction Project	3	months
Length		miles
Length (converted)	0	feet
Width		feet
Area	6.00	acres

Conversion Factors

0.000022957	acres per feet
5280	feet per mile

Staging Areas

Duration of Construction Project	12	months
Length		miles
Length (converted)		feet
Width		feet
Area	0.00	acres

	Project Emissions (tons/year)			
	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Construction Area (0.19 ton PM10/ac)	3.42	1.71	0.34	0.17
Staging Areas	0.00	0.00	0.00	0.00
Total	3.42	1.71	0.34	0.17

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

Construction Fugitive Dust Emission Factors

General Construction Activities Emission Factor

0.19 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions from Construction Operations, calculated the 0.19 ton PM10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM10/acre-month) and 75% of the average emission factor (0.11 ton PM10/acre-month).

The 0.19 ton PM10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006). The 0.19 ton PM10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas.

New Road Construction Emission Factor

0.42 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM2.5 Multiplier

0.10

PM2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM10 and PM2.5

0.50

The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

CALCULATION SHEET-SUMMARY OF EMISSIONS

Alternative 1 Construction Emissions for Criteria Pollutants (tons per year)									
Emission Source	VOC	CO	NOx	PM-10	PM-2.5	SO2	CO2	CO2 Equivalents	Total CO2
Combustible Emissions	3.90	15.86	37.97	3.20	3.12	4.91	3561.85	11904.82	15466.67
Construction Site-Fugitive PM-10	NA	NA	NA	1.71	0.17	NA	NA	NA	NA
Construction Workers Commuter & Trucking	0.97	9.06	1.25	0.02	0.02	NA	279.29	411.84	691.13
Total emissions-CONSTRUCTION	4.87	24.92	39.21	4.93	3.31	4.91	3,841	12,317	16,158
Ongoing Operational Emission Source									
Diesel Generators	0.04	0.11	0.18	0.02	0.02	0.02	17.77	57.09	74.86
Total Ongoing Operational Emissions	0.04	0.11	0.18	0.02	0.02	0.02	17.77	57.09	74.86
De minimis Threshold (1)	100	100	100	100	100	100	NA	NA	27,557

1. Pima County is in moderate non-attainment for PM-10

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks;
<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-CONSTRUCTION-ALTERNATIVE FOSSILE FUEL

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	8	240	1152000
Diesel Road Compactors	1	100	8	60	48000
Diesel Dump Truck	1	300	8	240	576000
Diesel Excavator	1	300	8	180	432000
Diesel Hole Trenchers	1	175	8	180	252000
Diesel Bore/Drill Rigs	1	300	8	180	432000
Diesel Cement & Mortar Mixers	1	300	8	240	576000
Diesel Cranes	1	175	8	240	336000
Diesel Graders	1	300	8	40	96000
Diesel Tractors/Loaders/Backhoes	1	100	8	180	144000
Diesel Bull Dozers	1	300	8	180	432000
Diesel Front End Loaders	2	300	8	180	864000
Diesel Fork Lifts	2	100	8	240	384000
Diesel Generator Set	2	40	8	240	153600

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTIBLE EMISSIONS-CONSTRUCTION-ALTERNATIVE FOSSILE FUEL

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.559	2.628	6.970	0.520	0.508	0.939	680.454
Diesel Road Paver	0.020	0.078	0.259	0.018	0.017	0.039	28.363
Diesel Dump Truck	0.279	1.314	3.485	0.260	0.254	0.470	340.227
Diesel Excavator	0.162	0.619	2.190	0.152	0.148	0.352	255.313
Diesel Hole Cleaners\Trenchers	0.142	0.678	1.613	0.128	0.122	0.206	148.794
Diesel Bore/Drill Rigs	0.286	1.090	3.404	0.238	0.233	0.348	252.171
Diesel Cement & Mortar Mixers	0.387	1.473	4.621	0.305	0.298	0.463	336.228
Diesel Cranes	0.163	0.481	2.118	0.126	0.122	0.270	196.318
Diesel Graders	0.037	0.144	0.500	0.035	0.034	0.078	56.736
Diesel Tractors/Loaders/Backhoes	0.294	1.303	1.146	0.217	0.211	0.151	109.669
Diesel Bull Dozers	0.171	0.657	2.266	0.157	0.152	0.352	255.313
Diesel Front End Loaders	0.362	1.476	4.761	0.333	0.324	0.705	510.531
Diesel Aerial Lifts	0.838	3.284	3.622	0.588	0.571	0.402	292.324
Diesel Generator Set	0.205	0.636	1.011	0.124	0.120	0.137	99.411
Total Emissions	3.903	15.860	37.965	3.202	3.115	4.912	3561.853

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS-CONSTRUCTION-ALTERNATIVE FOSSILE FUEL

Construction Worker Personal Vehicle Commuting to Construction Site-Passenger and Light Duty Trucks									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	240	20	20	0.43	0.51	0.94
CO	12.4	15.7	60	240	20	20	3.94	4.98	8.92
NOx	0.95	1.22	60	240	20	20	0.30	0.39	0.69
PM-10	0.0052	0.0065	60	240	20	20	0.00	0.00	0.00
PM 2.5	0.0049	0.006	60	240	20	20	0.00	0.00	0.00
CO2	369	511	60	240	20	20	117.11	162.18	279.29

Heavy Duty Trucks Delivery Supply Trucks to Construction Site									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02
CO2	536	536	60	240	2	2	17.01	17.01	34.02

Daily Commute New Staff Associated with Proposed Action									
	Emission Factors		Assumptions				Results by Pollutant		
Pollutants	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	40	365			-	0.00	-
CO	12.4	15.7	40	365			-	0.00	-
NOx	0.95	1.22	40	365			-	0.00	-
PM-10	0.0052	0.0065	40	365			-	0.00	-
PM 2.5	0.0049	0.006	40	365			-	0.00	-
CO2	369	511	40	365			-	0.00	-

Truck Emission Factor Source: MOBILE6.2 USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway.

CALCULATION SHEET-TRANSPORTATION COMBUSTIBLE EMISSIONS-CONSTRUCTION-ALTERNATIVE FOSSILE FUEL

Conversion factor:	gms to tons
	0.000001102

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks;
<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>

CARBON EQUIVALENTS

Construction Commuters	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	23.57	
NOx	311	0.69	
Total		24.25	303.54

Delivery Trucks	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	0.67	
NOx	311	173.42	
Total		174.09	208.11

Kirtland AFB staff and Students	Conversion	Emissions CO2 tons/yr	Total CO2
VOCs	25	-	
NOx	311	-	
Total		-	-

ONGOING EMISSIONS FROM DIESEL GENERATOR

Assumptions for Combustible Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Diesel Generator Set	2	286	24	365	5010720

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Diesel Generator Set	1.21	3.76	5.97	0.73	0.71	0.81	587.3

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Diesel Generator Set	6.681	20.762	32.965	4.031	3.920	4.473	3242.961
Total Emissions	6.681	20.762	32.965	4.031	3.920	4.473	3242.961

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-FUGITIVE DUST-CONSTRUCTION-ALTERNATIVE FOSSILE FUEL

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42 ton PM10/acre-month		MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
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Control Efficiency

0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006
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Project Assumptions

Construction Area (0.19 ton PM10/acre-month)

Duration of Construction Project	3	months
Length		miles
Length (converted)	0	feet
Width		feet
Area	6.00	acres

Conversion Factors

0.000022957	acres per feet
5280	feet per mile

Staging Areas

Duration of Construction Project	12	months
Length		miles
Length (converted)		feet
Width		feet
Area	0.00	acres

	Project Emissions (tons/year)			
	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Construction Area (0.19 ton PM10/ac)	3.42	1.71	0.34	0.17
Staging Areas	0.00	0.00	0.00	0.00
Total	3.42	1.71	0.34	0.17

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

Construction Fugitive Dust Emission Factors

General Construction Activities Emission Factor

0.19 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions from Construction Operations, calculated the 0.19 ton PM10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM10/acre-month) and 75% of the average emission factor (0.11 ton PM10/acre-month).

The 0.19 ton PM10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006). The 0.19 ton PM10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas.

New Road Construction Emission Factor

0.42 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM2.5 Multiplier

0.10

PM2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM10 and PM2.5

0.50

The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

CALCULATION SHEET-SUMMARY OF EMISSIONS-ALTERNATIVE FOSSILE FUEL

Alternative 1 Construction Emissions for Criteria Pollutants (tons per year)									
Emission Source	VOC	CO	NOx	PM-10	PM-2.5	SO2	CO2	CO2 Equivalents	Total CO2
Combustible Emissions	3.90	15.86	37.97	3.20	3.12	4.91	3561.85	11904.82	15466.67
Construction Site-Fugitive PM-10	NA	NA	NA	1.71	0.17	NA	NA	NA	NA
Construction Workers Commuter & Trucking	0.97	9.06	1.25	0.02	0.02	NA	279.29	411.84	691.13
Total emissions-CONSTRUCTION	4.87	24.92	39.21	4.93	3.31	4.91	3,841	12,317	16,158
Ongoing Operational Emission Source									
Diesel Generators	6.68	20.76	32.97	4.03	3.92	4.47	3242.96	10419.22	13662.18
Total Ongoing Operational Emissions	6.68	20.76	32.97	4.03	3.92	4.47	3242.96	10419.22	13662.18
De minimis Threshold (1)	100	100	100	100	100	100	NA	NA	27,557

1. Pima County is in moderate non-attainment for PM-10

Carbon Equivalents	Conversion Factor
N2O or NOx	311
Methane or VOCs	25

Source: EPA 2010 Reference, Tables and Conversions, Inventory of U.S. Greenhouse Gas Emissions and Sinks;
<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>