DECISION RECORD
Environmental Assessment
DOI-BLM-AZ-P040-2010-0004-EA
Table Top Wilderness Protection and Vehicle Barrier Project

DECISION

It is my decision to authorize the implementation of the activities associated with the proposed action of the Table Top Wilderness Protection and Vehicle Barrier Project Environmental Assessment. The project entails: 1) construction and maintenance of vehicle barriers and 2) clean-up and remediation efforts within the southeastern portion of the Table Top Wilderness within the Sonoran Desert National Monument. Specific project details can be found in the Proposed Action section of the attached environmental assessment.

The goal of the proposed action is to prevent vehicle-based incursions into the wilderness and other parts of the Monument to help protect resources.

STIPULATIONS

The following stipulations and mitigation efforts are required for implementation of the proposed action.

General Stipulations

- No Invasive weeds will be introduced to the area by construction equipment. All construction equipment will be pressure washed prior to entering the project area.
- Work will be conducted in the daylight hours to the extent practicable. Nighttime construction activities would not be conducted.
- All vehicle barriers in dry washes will be designed and constructed to ensure proper conveyance of floodwaters and to lessen the potential to cause backwater flooding.
- The disposal of solid and/or hazardous wastes is not authorized on the SDNM.
- Wherever possible, rather than clearing vegetation, equipment and vehicles shall use existing surfaces or previously disturbed areas.
- Existing roads shall be used for travel and equipment storage whenever possible. Equipment will not be stored at the project location.
- Where feasible and desirable, in the judgment of the lead agency, newly created access routes shall be restricted by constructing barricades.
- The project area will contain adequate signage to indicate which BLM routes are open and which routes are closed.
- Impacts to naturalness would be mitigated by confining, to the extent possible, the temporary vehicle access in wilderness to a wide, sandy wash that parallels the boundary with the Tohono O'odham Reservation in the project area, and by reclamation of disturbed areas when construction is complete.

Biological Resources Stipulations

- Any temporarily disturbed soils will be stabilized and/or revegetated with native tree and shrub species, including mesquite and Palo Verde at washes/arroyos, to provide erosion and sedimentation control as necessary. Post-construction stabilization of eroding areas will be required where fencing and ground disturbance results in accelerated erosion. This may include reseeding, water bars or other treatment as necessary.
- Prior to project initiation, a biological monitor will be designated. The biological monitor will have the following duties:
  a. Have the authority to ensure compliance with protective measures for the Threatened and Endangered and sensitive species.
  b. Have the authority and responsibility to halt activities that are in violation of these terms and conditions.
  c. Be present in each area of active surface disturbance throughout the work day from initial clearing through habitat restoration, except where the project area is completely fenced and cleared of Tucson Shovel Nosed Snake (TSNS).
  d. Examine areas of potential habitat (at least hourly when surface temperatures exceed 85ºF) for the presence of TSNSs.
  e. Work with the project supervisor to take steps, as necessary, to avoid disturbance to TSNSs and their habitat. If avoiding disturbance to a TSNS is not possible or if a TSNS is found the affected snake shall be captured by hand and relocated.
  f. Develop and implement a worker education program. Wallet cards summarizing this information shall be provided to all construction and maintenance personnel. The education program shall include the following aspects at a minimum:
     - biology and status of the TSNS,
     - protection measures designed to reduce potential impacts to the species,
     - reporting procedures to be used if a TSNS is encountered in the field, and
     - importance of exercising care when commuting to and from the project area to reduce mortality of TSNSs on roads.
- To the extent practicable, surface-disturbing activities shall be located outside of TSNS habitat and shall be timed to minimize mortality. A survey of the project site shall be conducted prior to construction in order to assist in locating the project and reducing threats to the TSNS.
- The project work area shall be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction and restoration workers shall restrict their activities and vehicles to areas that have been flagged to eliminate adverse impacts to the TSNS and its habitat. All workers shall be instructed that their activities are restricted to flagged and cleared areas.
- Within TSNS habitat, the area of disturbance of vegetation and soils shall be the minimum required for the project.

Cultural Resources Stipulations

- Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered during project activities shall be immediately reported to the authorized officer. The BLM shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery shall be made by the authorized officer to determine the appropriate actions to prevent the loss of significant cultural or scientific values. The BLM shall be responsible for the cost of the evaluation and any decision as to the proper mitigation measures would be made by the authorized officer.
- As required under the Native American Graves Protection and Repatriation Act at 43 CFR10.4(g), "If in connection with the project operations under this authorization, any human remains, funerary objects, scared objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the ROW holder shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery.
- A cultural resources monitor will be on site to monitor identified (flagged) cultural resource areas during construction of the barrier. The monitor may also monitor the clean-up and remediation efforts. The monitor could be a para-archaeologist or cultural resources specialist.

PLAN CONFORMANCE AND CONSISTENCY

The proposed action and alternatives have been reviewed and found to be in conformance with one or more of the following BLM Land Use Plans and the associated decision(s):

- *Lower Gila South Resource Management Plan* (1988)
- *Maricopa Complex Wilderness Management Plan, Environmental Assessment, and Decision Record* (1995)

ALTERNATIVES CONSIDERED

In addition to the proposed action, two additional alternatives were considered.

The no action alternative represents the current management situation in the project area. Under the no action alternative, resource damage to the wilderness and Sonoran Desert National Monument is increasing due to illegal human and drug smuggling.

A second action alternative was also considered. This alternative is similar to the clean up and remediation of the proposed action but differed in that it proposed no barrier construction to

protect the wilderness. Rather, it proposed increased law enforcement presence and patrols to deter smuggling activities from the project area.

RATIONALE FOR DECISION

Scoping for this project began with the Tohono O'odham Nation in July, 2010. Targeted public scoping was initiated in September of 2010. Consultation with the U.S. Fish and Wildlife Service (USF&W) was initiated on September 20, 2010, through the submittal for review of a Biological Assessment. The USF&W submitted a letter of concurrence for the Biological Assessment (consultation number 22410-2011-I-0006) to the BLM on 10/19/2010.

Several of the concerns/questions expressed in the scoping process were considered in the Environmental Assessment. Scoping helped derive analysis of the no-barrier alternative. Additionally, several scoping issues were incorporated into design features/mitigation measures.

The *no action alternative* was not chosen for implementation because of the potential for continued resource damage to wilderness and monument objects. The *no barrier alternative* was not selected because long-term feasibility of its implementation cannot be guaranteed, due to BLM budget constraints. The proposed action was selected because it provides a solution to prevention of vehicle based incursions (and associated damage) while not requiring long-term and extensive human resources to maintain the effort.

APPEAL PROCESS

The decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. Public notification of this decision will be considered to have occurred on October 19, 2010. Within 30 days of this decision, a notice of appeal must be filed in the office of the Authorized Officer at 21605 North 7th Avenue, Phoenix Arizona, 85027. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

If you wish to file a petition for stay pursuant to 43 CFR Part 4.21(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
4. Whether the public interest favors granting the stay.

If a petition for stay is submitted with the notice of appeal, a copy of the notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the IBLA at the same time it is filed with the Authorized Officer.

A copy of the notice of appeal, any statement of reasons and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken to: Field Solicitor, U.S. Department of the Interior, 401 West Washington Street, Suite 404, Phoenix Arizona 85003, not later than 15 days after filing the document with the Authorized Officer and/or IBLA.

RECOMMENDED BY:

/s/ Rich Hanson	10/19/2010
BLM Sonoran Desert National Monument Manager	Date
/s/ Emily Garber	10/19/2010
BLM Lower Sonoran Field Office Manager	Date

APPROVED BY:

/s/ Angelita Bulletts	10/19/2010
BLM Phoenix District Manager	Date

Attachments: Finding of No Significant Impact, Environmental Assessment

FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment

DOI-BLM-AZ-P040-2010-0004-EA

Table Top Wilderness Protection and Vehicle Barrier Project

The Bureau of Land Management has conducted an Environmental Assessment (EA) for a proposed action to address resource damage from vehicle-based incursions resulting from illegal smuggling within the Table Top Wilderness of the Sonoran Desert National Monument. The project entails: 1) construction and maintenance of vehicle barriers and 2) clean-up and remediation efforts within the southeastern portion of the Table Top Wilderness. Several resource mitigation features have been incorporated into the project design and were analyzed in the EA.

FINDING OF NO SIGNIFICANT IMPACT:

Based upon a review of the EA, I have determined that the project is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the *Lower Gila South Resource Management Plan* (1988) and *Maricopa Complex Wilderness Management Plan, Environmental Assessment, and Decision Record* (1995). Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

CONTEXT:

The project is a site-specific action directly 1.2 linear miles, 8 areas of less than 1 acre, and several additional areas of clean up. The land does in and of itself have national, regional, or state-wide importance as a Wilderness Area within a National Monument.

INTENSITY:

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this proposal:

1. Impacts that may be both beneficial and adverse:

The beneficial effects of the vehicle barriers and remediation efforts include increased protection of Sonoran Desert National Monument objects and wilderness values; removal and re-vegetation of illegal routes within the wilderness area, trash removal. Adverse effects include visual intrusion of the barrier, temporary increased vehicle incursions during clean-up, temporary noise

disturbance, and potential increased proliferation and smuggling activity within the adjacent Tohono O'odham Nation.

2. Degree of effect on public health and safety:

While some public health and safety risks to project workers may be present during the construction and clean up phase of the project, protection and mitigation measures described in the EA should ensure that these impacts would not be significant.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas:

The project area is not within the proximity of park lands, prime farmlands, wild and scenic rivers. The project area is, however, proximate to cultural resources and ecologically important areas, as the project resides within the Table Top Wilderness area and Sonoran Desert National Monument. With mitigation measures analyzed in the EA, impacts to these resources are not expected to be significant.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial:

Public scoping on this project revealed some concerns on the long-term effectiveness of the barrier in thwarting illegal access within the Wilderness and National Monument. Additional concerns were expressed regarding the potential increase in indirect impacts from smuggling in the adjacent Tohono O'odham nation. These impacts were disclosed in the EA and are not anticipated to be highly controversial.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve a unique and unknown risk:

No unique or unknown risks were identified when analyzing impacts from the proposed project.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

The proposed project neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

No individually or cumulatively significant impacts were identified for the proposed project. Any adverse impacts identified for the proposed project, in conjunction with any adverse impacts

of other past, present, or reasonably foreseeable future actions will result in negligible to moderate impacts to natural and cultural resources.

8. Degree to which the action may adversely affect district, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:

An intensive archeological inventory to identify districts, sites, or other properties eligible for listing to or included on the National Register of Historic Places was completed for the proposed action. No historic properties were identified within the area of potential direct effects. On-site monitoring of construction activities by qualified archeological monitors will minimize the potential for adverse effects to heritage resources.

9. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:

The U.S. Fish and Wildlife Service concurred with a determination that the preferred alternative is "not likely to adversely affect" endangered or threatened species and critical habitat. On-site monitoring of construction activities by trained biological monitors will minimize the potential for adverse effects to biological resources.

10. Whether the action threatens a violation of federal, state, or local environmental protection law:

The preferred alternative violates no federal, state, or local environmental protection laws.

RECOMMENDED BY:

/s/ Rich Hanson	10/19/10
_____	_____
BLM Sonoran Desert National Monument Manager	Date
/s/ Emily Garber	10/19/2010
_____	_____
BLM Lower Sonoran Field Office Manager	Date

Approved by:

/s/ Angelita Bulletts	10/19/2010
_____	_____
BLM Phoenix District Manager	Date

Table Top Wilderness Protection and Vehicle Barrier Project Environmental Assessment

DOI-BLM-AZ-P040-2010-0004-EA

Prepared by:

U.S. Department of Interior
Bureau of Land Management
Phoenix District Office
Sonoran Desert National Monument
Phoenix, Arizona
October 2010

BLM

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Introduction

Identifying Information

NEPA Number	DOI-BLM-AZ-P040-2010-0004-EA
Project Title	Table Top Wilderness Protection and Vehicle Barrier Project
Project Location	The general location is T8S R2E S13, T8S R3E S18, 17 and 5; T7S R3E S28 and 22; Gila and Salt River Principal Meridian. The area is covered by the Vekol Mountains NE NW, Indian Butte SW, Indian Butte SE quadrangle maps, 7.5' quadrangle maps and is located in Pinal county, Arizona

TABLE 1 PROJECT INFORMATION

Purpose and Need for Action

The purpose of the project proposal is to provide protection to the Table Top Wilderness within the Sonoran Desert National Monument (SDNM). The SDNM was created under Presidential Proclamation 7397, which mandates protection of Monument Objects, including wildlife, vegetation, and cultural resources. The Table Top Wilderness was established by the Arizona Desert Wilderness Act of 1990, which added it to the National Wilderness Preservation System. The National Wilderness Preservation System was established by Wilderness Act of 1964, which prohibits motorized travel within wilderness boundaries.

The need stems from increased vehicle incursions, trash, road proliferation and foot trails related to illegal human and drug smuggling. While some of the resource damage from smuggling activities is caused by foot traffic, the majority is related to vehicle-based traffic. The project design intends to deter this behavior from the SDNM and Wilderness, thereby reducing damage to wilderness and monument resources. This project is part of a larger BLM strategy to improve resource conditions within the Table Top Wilderness and SDNM to remove trash and improve natural and cultural resource values.

The decision to be made is whether or not to provide additional, active protection measures to the Table Top Wilderness within the SDNM.

Conformance to Land Use Plan

The proposed action is in conformance with the Lower Gila South Resource Management Plan (1988), as amended, because it is specifically provided for in the following decisions:

- "ORV [Off-Road-Vehicle] use is limited to existing and/or designated roads, trails, and vehicle routes. ORV closures may be made on areas where ORV use is determined to be causing irreparable harm to the existing resources." (*Record of Decision, Lower Gila South Resource Management Plan, 1988,* page 3).

- "Road or area closure will be enacted where off-highway or special recreation vehicle use is determined to be inconsistent with established Recreation Opportunity Spectrum classifications…and/or such use is causing harm to natural or cultural resources." (*Approved Amendment to the Lower Gila North Management Framework Plan and Lower Gila South Resource Management Plan and Decision Record, 2005*, page 15).Additionally, the proposed action is consistent with the Maricopa Complex Wilderness Management Plan (1995), because the action was specifically provided by the following:
- Management action 1.11, "Respond to the following unwanted surface disturbances in the manner described....Rehabilitate these surface disturbances and those arising from unauthorized vehicular transport and emergency activities...within one year of occurrence" (*Maricopa Complex Wilderness Management Plan, Environmental Assessment, and Decision Record,* 1995, p. 35).
- This plan envisioned the use of motorized vehicles and equipment in the re-construction and maintenance of facilities within wilderness, including wildlife water and range developments (*Maricopa Complex Wilderness Management Plan, Environmental Assessment, and Decision Record,* 1995, pp. 45-46). The plan did not envision large-scale motorized human and drug smuggling activities. However the plan did authorize motorized law enforcement response due to criminal activities, emergencies, or public safety concerns.

Relationship to other Statutes and Regulations

The proposed project is consistent with the following laws and regulations.

Presidential Proclamation 7397

Presidential Proclamation 7397, designating the Sonoran Desert National Monument, required that "[f]or the purpose of protecting the objects identified…all motorized and mechanized vehicle use off road will be prohibited, except for emergency or authorized administrative purposes."

Wilderness Act of 1964

The Wilderness Act of 1964 requires that ". . . each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character." The Act prohibits roads, use of motor vehicles and motorized equipment, landing of aircraft, and structures or installations, except as necessary to meet minimum requirements for administering the area including emergencies involving health and safety of persons.

43 Code of Federal Regulations 6303.1

This regulation, in part implementing legislation for management of designated wilderness areas,

directs that "as necessary to meet minimum requirements for the administration of the wilderness area, BLM may (a) Use, build, or install temporary roads, motor vehicles, motorized equipment, mechanical transport, structures, or installations, and land aircraft, in designated wilderness. "

43 Code of Federal Regulations 8341.2(a)
This regulation, in part implementing legislation affecting management of off-road vehicles, directs that "…where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the authorized officer shall immediately close the areas affected to the type(s) of vehicle(s) causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.

Endangered Species Act of 1973 (7 U.S.C. § 136, 16 U.S.C. § 1531 et seq.)

Migratory Bird Treaty Act of 1918 (16 U.S.C. § 703-712)

Memorandum of Understanding Among US Department of Homeland Security and US Department of the Interior and US Department of Agriculture Regarding Cooperative National Security and Counterterrorism Efforts on Federal lands along the United States' Borders, signed by the Secretary of the Interior on March 31, 2006.

Scoping & Public Involvement

Coordination with the Tohono O'odham Nation was initiated in July, 2010. Between July and September, 2010, BLM presented the resource damage concern and potential solutions to the Tohono O'odham Nation Chairman, Legislative Council, Cultural Resources Committee of the Legislature, and Natural Resources Committee of the Legislature.

Additional Tribal Consultation was conducted with the Hopi Tribe.

Consultation with the U.S. Fish and Wildlife Service (USF&W) was initiated on September 20, 2010, through the submittal for review of a Biological Assessment. At the time of submittal, the Tohono O'odham Nation Ecologist concurred with the BLM findings of the Biological Assessment. The USF&W submitted a letter of concurrence for the Biological Assessment (consultation number 22410-2011-I-0006) to the BLM on 10/19/2010.

Public scoping for this project was initiated in September of 2010. Notification letters were distributed on September 15, 2010. The letters included the purpose and need for action, a summary of the proposed project, and solicitation for feedback on 1) project design and 2) potential impacts. The public scoping period was completed on September 30, 2010. The scoping period and public involvement process for this project conform to requirements of the National Environmental Policy Act and the *BLM National Environmental Policy Handbook,* H-1790-1.

Scoping comments are classified as either substantive or non-substantive. Substantive comments provide input that would affect the NEPA process, impacts analysis, or the range of alternative analyzed in the Environmental Assessment. Non-substantive comments express opinions, emotions, or provide input or request analysis that is outside the scope of the Environmental Assessment. A summary of substantive comments is summarized below.

Issues/Questions Identified

The following potential issues/questions were identified during the scoping process:

Issue/Question	Entity Raising Issue/Question
How would the proposed project impact air quality during construction?	• BLM
How would the vehicle barriers affect hydrologic function?	• BLM
Would the project impact cultural resources, traditional cultural uses, and/or sites eligible for traditional cultural purposes? How would the proposed project impact cultural and biological resources of the adjacent Tohono O'odham Nation lands? Could a cultural resource monitor be present during any proposed construction activities?	• BLM • Tohono O'odham Nation
Would the project impact federally listed threatened or endangered species and or BLM species of concern?	• BLM • Tohono O'odham Nation
Would the project impact native vegetation?	• BLM • Arizona Off-Highway Vehicle Coalition • Arizona Trail Riders • Arizona State Association of 4-Wheel Drive Clubs
How would the proposed project conflict with legal vehicular and recreation access?	• Arizona Off-Highway Vehicle Coalition • Arizona State Association of 4-Wheel Drive Clubs • Arizona Trail Riders

Issue/Question	Entity Raising Issue/Question
Would the barriers pose a visual resource impact? If so, are there mitigating options available to reduce visual impacts?	• BLM • Arizona Off-Highway Vehicle Coalition • Arizona State Association of 4-Wheel Drive Clubs • Arizona Trail Riders
How would this project impact the special designations it is trying to protect, namely the SDNM and Table Top Wilderness?	• BLM • Arizona Wilderness Coalition
Is there a hazardous materials threat from the proposed construction?	• BLM
Is there a public safety threat associated with this project?	• BLM
How successful will the proposed project be at deflecting vehicle-based incursions into the SDNM without frequent patrols to ensure integrity of barriers? Could law enforcement patrol only (no installation of vehicle barriers) provide better results with less impact to the wilderness at less cost? Could blocking access to the pipeline road be a better solution?	• Tohono O'odham Nation • Arizona Wilderness Coalition
Has substantial time been allotted for the public to provide meaningful input into the project design and Environmental Assessment?	• Tohono O'odham Nation • Arizona Off-Highway Vehicle Coalition • Arizona Trail Riders
Will the project area have adequate signage to ensure that recreationists understand where route closures occur and where the Wilderness boundary occurs?	• Arizona State Association of 4-Wheel Drive Clubs

TABLE 2 SCOPING ISSUES

Scoping issues and concerns helped to drive the project design, alternatives, and potential resource impacts presented throughout this document.

Alternatives

Three alternatives are considered in this environmental assessment. The no action alternative represents the current management situation in the project area. Two alternatives to the no action are also considered – the proposed action (which includes the construction of vehicle barriers and clean-up remediation efforts), and an alternative that includes clean-up and remediation of the project area without barriers but with increased law enforcement patrol.

Proposed Action

The proposed action consists of two main components: 1) placement and maintenance of temporary vehicle barriers to prevent additional wilderness damage, and 2) concentrated clean up and restoration of The Table Top Wilderness.

Vehicle Barriers

The BLM is proposing the installation and maintenance of approximately 1.2 miles of a temporary, continuous metal vehicle barrier within the southeast corner of the SDNM and the Table Top Wilderness, near the Tohono O'odham Nation boundary. Up to eight additional vehicle barriers may be placed at locations adjacent to the eastern boundary of the Table Top Wilderness where illegal vehicle incursions into wilderness are common. Such barriers may be up to approximately 300 feet in length.

The vehicle barriers would be designed to allow for maximum wildlife passage and unimpeded hydrological function, with minimal impacts on vegetation, soils, and cultural resources. Vehicle barriers would be set on the ground, to obstruct use of existing and illegally-constructed vehicle routes.

The barriers are designed to be set approximately 10 feet apart, connected by a spanning bar. The spanning bar would be welded on site, between the barriers to ensure a proper fit, and would provide for a continuous obstruction to vehicle traffic. Some drilling into ground substrate, for tack points along the vehicle barrier would be required to anchor the structure. The stabilizers between barriers would stand at a height of approximately 2 to 5 feet from the ground surface.

For purposes of construction, access for vehicles and mechanized equipment would be required in wilderness, but would be limited to existing illegally-constructed vehicle routes and sandy washes. Upon completion of construction, these routes would be restored to a condition as natural as possible.

Two areas outside the wilderness, on the vehicle route adjacent to the eastern boundary of the Table Top Wilderness (on BLM Route 8022), will require minimal road upgrades to accommodate construction vehicles (stake bed trucks) and provide for safety while traveling to and from the project area. The barriers are designed as temporary and will be removed when threats to wilderness and monument objects have subsided. It is anticipated that these barriers will be in place for at least 5 years.

Throughout construction, vehicle-based patrols will occur within the Wilderness on existing smuggling routes to ensure that workers are safe from potential illegal activity.

Once constructed, the barrier would be inspected using non-motorized means. Inspection would occur approximately twice per month in cooler months and once per month in warmer/hotter months. In the event of damage/breakage of the barrier, maintenance would be conducted using a quad ATV with a mounted welder.

In order to create a continuous barrier, materials will be assembled on site during a 4-6 week construction period. Construction is estimated to begin in the fall of 2010.

The design of this vehicle protection barrier was conducted using the concepts of Minimum Tool Analysis, as required by BLM Manual 8560, *Management of Designated Wilderness.*

FIGURE 1 SAMPLE IMAGE OF BARRIER STYLE, SIMILAR IN DESIGN TO THE PROPOSED PROJECT

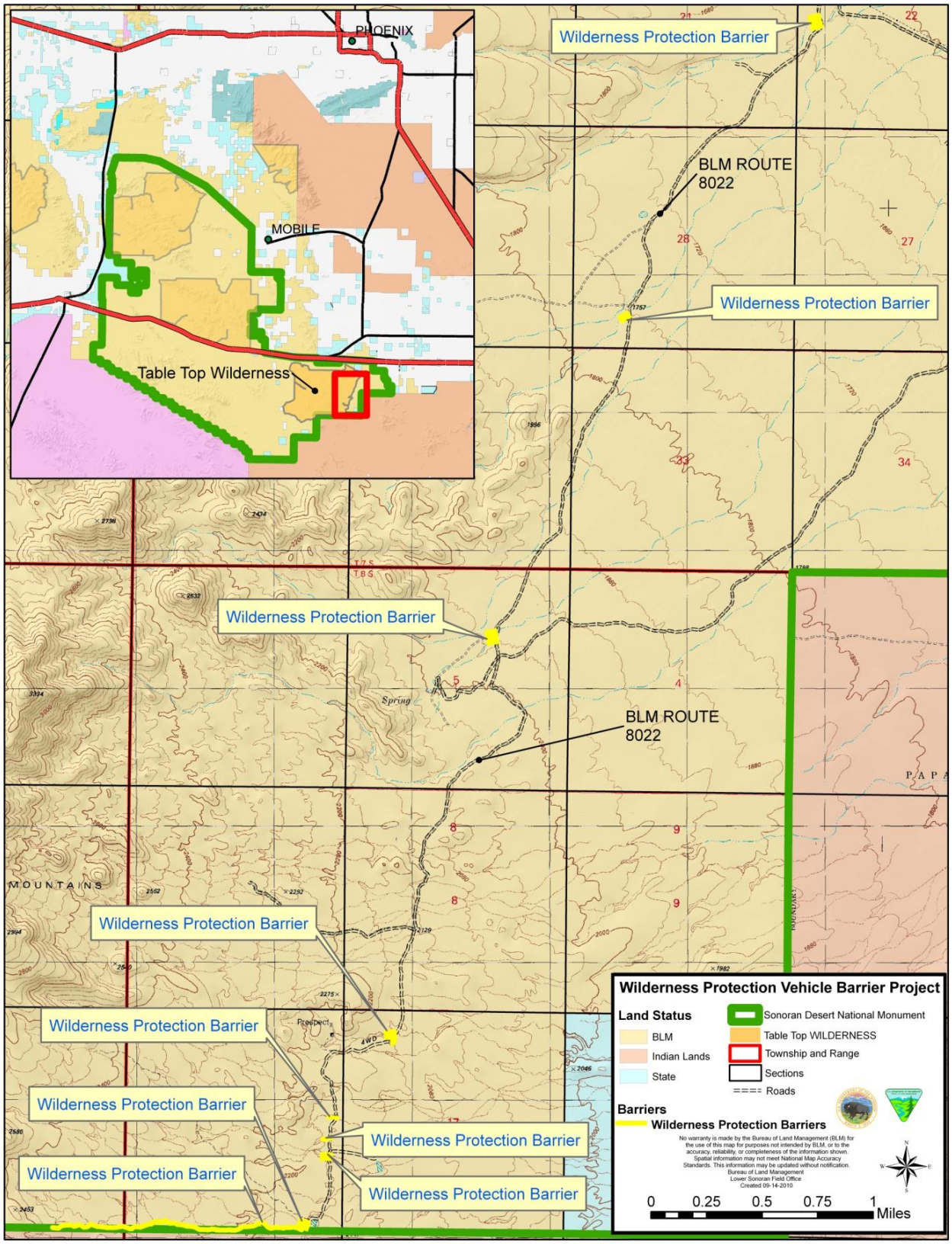

FIGURE 2 MAP OF PROPOSED WILDERNESS PROTECTION BARRIER LOCATIONS

Clean Up and Remediation Effort

In addition to placement of vehicle barriers, BLM is proposing a concentrated clean-up effort in the Table Top Wilderness. This cleanup effort will occur over approximately six months and may require the use of mechanized All Terrain Vehicles (ATVs) to retrieve trash and refuse. Previous disturbance and refuse dumping has been created by illegal activities within the SDNM and specifically within the Table Top Wilderness. Waste within the Table Top wilderness typically consists of clothes, back packs, abandoned vehicles, bicycles, plastic trash bags, and gasoline containers. In most cases, motorized access to dump sites will utilize existing smuggling routes and washes. As areas are cleaned of trash/refuse, the unauthorized smuggling routes will be remediated. Remediation will include ripping of illegal routes, vertical mulching, and re-vegetation. This cleanup effort will occur over a period of approximately six months. It is estimated that during this elevated clean-up period, up to twenty vehicle incursions may occasionally occur per day, in areas with the most trash and refuse.

In rare instances, aircraft may be utilized for sling-load removal of very large trash loads and/or areas that are difficult to access. Occasionally, law enforcement vehicles may also enter the wilderness in order to provide maximum security to clean up and work crews.

Mitigation and Prevention Efforts

The following mitigation measures shall be followed throughout the project, where appropriate.

General Resources Mitigation Efforts	No Invasive weeds will be introduced to the area by construction equipment. All construction equipment will be pressure washed prior to entering the project area.
	Work will be conducted in the daylight hours to the extent practicable. Nighttime construction activities would not be conducted.
	All vehicle barriers in dry washes will be designed and constructed to ensure proper conveyance of floodwaters and to lessen the potential to cause backwater flooding.
	The disposal of solid and/or hazardous wastes is not authorized on the SDNM.
	Wherever possible, rather than clearing vegetation, equipment and vehicles shall use existing surfaces or previously disturbed areas.
	Existing roads shall be used for travel and equipment storage whenever possible. Equipment will not be stored at the project location.
	Where feasible and desirable, in the judgment of the lead agency, newly created access routes shall be restricted by constructing barricades.
	The project area will contain adequate signage to indicate which BLM routes are open and which routes are closed.

	Impacts to naturalness would be mitigated by confining, to the extent possible, the temporary vehicle access in wilderness to a wide, sandy wash that parallels the boundary with the Tohono O'odham Reservation in the project area, and by reclamation of disturbed areas when construction is complete.
Biological Resources Mitigation Efforts	Any temporarily disturbed soils will be stabilized and/or revegetated with native tree and shrub species, including mesquite and Palo Verde at washes/arroyos, to provide erosion and sedimentation control as necessary. Post-construction stabilization of eroding areas will be required where fencing and ground disturbance results in accelerated erosion. This may include reseeding, water bars or other treatment as necessary.
	Prior to project initiation, a biological monitor will be designated. The biological monitor will have the following duties: a. Have the authority to ensure compliance with protective measures for the Threatened and Endangered and sensitive species. b. Have the authority and responsibility to halt activities that are in violation of these terms and conditions. c. Be present in each area of active surface disturbance throughout the work day from initial clearing through habitat restoration, except where the project area is completely fenced and cleared of Tucson Shovel Nosed Snake (TSNS). d. Examine areas of potential habitat (at least hourly when surface temperatures exceed 85ºF) for the presence of TSNSs. e. Work with the project supervisor to take steps, as necessary, to avoid disturbance to TSNSs and their habitat. If avoiding disturbance to a TSNS is not possible or if a TSNS is found the affected snake shall be captured by hand and relocated. f. Develop and implement a worker education program. Wallet cards summarizing this information shall be provided to all construction and maintenance personnel. The education program shall include the following aspects at a minimum: • biology and status of the TSNS, • protection measures designed to reduce potential impacts to the species, • reporting procedures to be used if a TSNS is encountered in the field, and • importance of exercising care when commuting to and from the project area to reduce mortality of TSNSs on roads.
	To the extent practicable, surface-disturbing activities shall be located outside of

	TSNS habitat and shall be timed to minimize mortality. A survey of the project site shall be conducted prior to construction in order to assist in locating the project and reducing threats to the TSNS.
	The project work area shall be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction and restoration workers shall restrict their activities and vehicles to areas that have been flagged to eliminate adverse impacts to the TSNS and its habitat. All workers shall be instructed that their activities are restricted to flagged and cleared areas.
	Within TSNS habitat, the area of disturbance of vegetation and soils shall be the minimum required for the project.
Cultural Resources Mitigation Efforts	Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered during project activities shall be immediately reported to the authorized officer. The BLM shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery shall be made by the authorized officer to determine the appropriate actions to prevent the loss of significant cultural or scientific values. The BLM shall be responsible for the cost of the evaluation and any decision as to the proper mitigation measures would be made by the authorized officer.
	As required under the Native American Graves Protection and Repatriation Act at 43 CFR10.4(g), "If in connection with the project operations under this authorization, any human remains, funerary objects, scared objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the ROW holder shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery.
	A cultural resources monitor will be on site to monitor identified (flagged) cultural resource areas during construction of the barrier. The monitor could be a para-archaeologist or cultural resources specialist.

TABLE 3 MITIGATION AND PREVENTION EFFORTS

No Barrier Alternative

Under the no barrier alternative, extended clean-up efforts and remediation (the same as those described in the proposed action) would be employed. Unlike in the proposed action, which includes increased patrols to ensure safety/security during the main clean-up and construction efforts, with maintenance patrols occurring less frequently after construction, this alternative would have increased patrols through the duration of observed heightened smuggling activities. Frequent patrols (daily or several times per day) would be needed through the duration of

heightened smuggling activities. After clean-up efforts have concluded, non-motorized patrols would continue to ensure

No Action Alternative

Under the no action alternative, Construction and/or installation of the vehicle barriers would not occur, nor would the concentrated cleanup effort.

Alternatives Considered but Not Analyzed in Detail

Several alternative methods of protecting the wilderness were considered during the project design phase. Different barrier styles were considered along with varying intensities of protection efforts. Discussion of these alternatives and justification as to why they were not analyzed further follows:

Barrier Type Alternative

Alternative barrier types considered include large boulders, concrete jersey-style barriers, spikes, rail barriers, and post and cable barriers. While each barrier type was initially considered, they were each removed from the final project design because of aesthetics or ease of destruction/breach.

- **Large boulders** are expensive to procure and transport and are easily split or moved
- **Jersey Barriers** are very expensive, difficult to transport, and easy to damage or shatter with explosives
- **Spikes** are unsafe for visitors and wildlife and could also harm Law Enforcement vehicles.
- **Rail barriers** are easier to cut or breach than the x-type barriers chosen for the proposed action
- **Post and cable** barriers are easy to cut by saw or welding torch

Because these alternative barrier types were considered to be impractical for implementation, their application is not analyzed further.

Pipeline Block Alternative

In the scoping process, it was suggested that the BLM consider controlling access along the El Paso pipeline road, which is heavily utilized by smugglers. The El Paso pipeline road occurs on public lands and Tohono O'odham lands south and west of the area of concern in the Table Top Wilderness. Controlling access along that road is beyond the scope and time constraints of this particular protection effort but is under consideration by the BLM for future protection efforts.

Affected Environment and Environmental Consequences

The scoping process identified the following resources or resource uses as having the potential for being impacted by the project proposal:

- air quality
- hydrologic function, soil and water resources
- cultural resources
- Native American and religious concerns
- wildlife habitat and threatened and endangered species
- recreation
- visual resources
- special area designations
- public safety
- hazardous materials and solid wastes

Direct, indirect, and cumulative impacts on these resources or resource uses are analyzed in detail below.

Assumptions

For the purposes of analysis, it is assumed that the efficacy of reduced vehicle-based entry to the Wilderness by both action alternatives would be equal.

Air Quality

The project area does not occur within any PM-10, Ozone, Sulfur Dioxide, or Carbon Monoxide non-attainment areas.

Environmental Consequences

Proposed Action

Heavy equipment, vehicles, and generators will produce exhaust during the construction phase. Ongoing vehicle patrols and maintenance activities would also produce exhaust. Exhaust is expected to dissipate quickly. Construction activities within the SDNM will result in the driving along a swath approximately 1.2 miles long along the border of the SDNM and the Tohono O'odham Nation and up to 20 ft in width, disturbing up to 3.8 acres of soils. Dust is expected to be generated during construction, but will be reduced in the long term by reducing the amount of travel within the immediate vicinity.

The minimal surface disturbance associated with both the barrier installation, maintenance, and clean-up activities should not result in substantial direct, indirect or cumulative emissions from the project and would likely be a negligible source of pollutant emissions, resulting in negligible impacts to air resources.

No Barrier Alternative

In the short-term, there would be fewer impacts to air quality than the proposed action (because of no construction-related dust). In the long term, however, impacts would be similar to the proposed action. Overall direct, indirect, and cumulative impacts to air quality are anticipated to be negligible.

No Action Alternative

Ongoing vehicle patrols and maintenance activities along the existing fence will produce exhaust. Dust will be generated by vehicle passage during ongoing patrols and maintenance activities along the existing four strand barbed wire fence. Exhaust is expected to dissipate quickly and long-term impacts to air quality are anticipated to be negligible.

Hydrologic Function, Soil, and Water Resources

There are two major soil types that occur within the project area.

1. Gunsight-Chuckawalla soils occur on fan terraces dissected by drainage ways. They are deep, well drained, and nearly level to moderately steep gravelly loamy soils.
2. Chuckawalla soils are characterized by desert pavement on fan terrace summits between drainages. The ecological sites associated with these soils are Limy fan, Limy upland (deep), and Sandy wash. This soil series is categorized as having slight water erosion potential and slight wind erosion potential.

Environmental Consequences

Proposed Action

Under project proposal, barriers would be installed in upland settings and through ephemeral drainages. Impacts likely to affect soil and water resources would occur from surface disturbance that could remove topsoil and vegetation resulting in increased erosion rates from increased water flow patterns.

The Wilderness Protection Vehicle Barriers would allow water and debris, for the most part, to pass through unimpeded. There is the potential for larger debris to be trapped at the foot of the barriers. As a result, potential adverse environmental impacts associated with downstream channel incision and erosion will be reduced as compared to the continuance of vehicular travel in the wash and upland systems. Furthermore; the barriers would not significantly alter natural drainage patterns in the uplands, which are expected to reduce environmental impacts associated with erosion as compared to the continuance of vehicular travel in wash and upland systems that are currently contributing to erosion. It is anticipated that erosion from ephemeral drainages will persist at near natural rates as related to natural deposition of sediments into drainages with the placement of the barriers. Depth to groundwater would not be affected.

Under this Alternative, damage caused by unauthorized vehicle use within the project area would be nearly eliminated. Smuggling foot traffic would continue throughout the project area. The barriers are easily bypassed on foot by either going over or under them. Impacts associated with foot travel would continue to be dispersed over a greater area.

Impacts from waste cleanup are expected to be minimal as the cleanup efforts would be contained to areas that previously disturbed. Impacts from the waste include changes in hydrological functions within washes where waste is dumped. Cleanup efforts would eliminate

these threats and could restore hydrological functions within the wash systems by removing waste that is blocking the natural flow of rain water during periods of such events.

Based on the scale of the proposed project, surface disturbance would be expected to be minimal, resulting in negligible direct, indirect and cumulative impacts to hydrologic function, soil and water resources.

No Barrier Alternative

Under the no barrier alternative, there would be no impacts to hydrologic function from construction. Impacts would be similar to those described for the proposed action, though slightly less.

No Action Alternative

No barrier will be built and no increased clean-up activities would occur. No impacts associated with barrier design or construction methods will occur (similar to the no barrier alternative). Damage caused by unauthorized vehicles use and trash (damaging upland and riparian vegetation, altering natural drainage patterns, accelerated erosion, etc.) will continue to accumulate, potentially threatening objects of the Monument.

Cultural Resources

The SDNM contains many cultural sites. Prehistoric and historic aboriginal groups generally used desert mountains and bajada areas to gather wild food, such as legumes, cactus fruit; and to hunt large and small animals. Prehistoric and historic foot paths have been recorded in many parts of the Monument.

A very small percentage of the land has been systematically surveyed for cultural resources. The only projects that had previously been conducted within a mile of the project area were small in scope. The first project was conducted in 1986, when a small site was recorded within 150 feet of the east end of the proposed vehicle barrier. A second survey was performed in 1995 on a small area east of the eastern terminus of the project. This survey did not reveal any additional sites in the immediate area.

In August of 2010, a required cultural resource survey was performed for the project proposal to comply with guidelines set forth under Sect. 106 National Historic Preservation Act (NHPA). All areas with the potential to be impacted by vehicle barrier installation as well as heavy equipment ingress/egress were surveyed at Class III (100%) levels. Results from the survey recorded two new, small archaeological sites. These sites were recommended as not eligible for the National Register of Historic Places (NRHP).

Even though these areas were not determined to be eligible for NRHP, they were recorded, mapped, and determined to be easily avoidable during construction, maintenance and monitoring of the proposed barrier. The project has been realigned slightly in order to avoid potential

damage to the cultural resource sites. In addition, two flagged designated buffer areas were installed.

Environmental Consequences

Proposed Action

Since cultural resource sites were avoided no impacts are expected to occur. A list of cultural resource stipulations for this project is in place (see *Table 3 Mitigation and Prevention Efforts).*

Under the proposed action, the barriers will likely deflect smuggling activities from the Table Top Wilderness and SDNM. Smugglers will likely make an effort to find a way around the barriers. In the short term, this might lead to increased damaging activities in otherwise undisturbed areas within the Tohono O'odham Nation. In the long-term, though, impacts to the Tohono O'odham nation cultural resources may decrease as smugglers learn that the area is impassable and seek wholly new areas of access. Therefore, indirect and cumulative impacts on heritage resources are anticipated to be minor to moderate in the short term and negligible in the long term.

No Barrier Alternative

Impacts would be similar to those described in the proposed action.

No Action Alternative

If the project were not implemented, increases in the number and width of new, illegal routes would be expected in Wilderness and in the surrounding lands. These increases in illegal route creation would threaten these sites and a number of other sites expected to lie in this area. Under the no action alternative, long-term impacts to cultural resources are anticipated to be greater than either the proposed action or the no barrier alternatives.

Native American and Religious Concerns

Coordination with the Tohono O'odham nation was initiated in July, 2010. Between July and September, 2010, BLM presented the resource damage concern and potential solutions to the Tohono O'odham Nation Chairperson, Legislative Council, Cultural Resources Committee of the legislature, and Natural Resources Committee of the Legislature. Throughout this consultation, no specific religious concerns were identified.

Additionally, the Hopi Tribe identified no specific concerns during consultation.

Environmental Consequences

Proposed Action

Because no concerns were identified in the project area, no impacts to Native American and religious concerns are anticipated under the proposed action. Any unidentified disturbance associated with clean-up efforts would be short-term in nature, whereas impacts from increased smuggling activity and trash would be long-term in nature.

Under the proposed action, the barriers will likely deflect smuggling activities from the Table Top Wilderness and SDNM. Smugglers will likely make an effort to find a way around the barriers. In the short term, this might lead to increased damaging activities in otherwise undisturbed areas within the Tohono O'odham Nation. In the long-term, though, impacts to the Tohono O'odham nation cultural resources may decrease as smugglers learn that the area is impassable and seek wholly new areas of access. Therefore, indirect and cumulative impacts on heritage resources are anticipated to be minor to moderate in the short term and negligible in the long term.

No Barrier Alternative

Impacts would be similar to those described under the proposed action

No Action Alternative

If no protective barriers are constructed, the area would continue to be subjected to the threat of new routes cut through the wilderness, through cultural sites, and into areas special to traditional users. Under the no action alternative, long-term impacts to Native American religious resources are anticipated to be greater than either the proposed action or the no barrier alternatives.

Wildlife Habitat & Threatened and Endangered Species

Wildlife abounds in the project area. Mammals are abundant, although some are primarily nocturnal and are rarely seen. Included in this group are many species of rodents, several bats, mountain lions and bobcats. Other mammals like the mule deer, desert bighorn sheep, javelina, desert cottontail and black-tailed jackrabbit are observed.

The project site is located within lesser long-nosed bat foraging habitat, cactus ferruginous pygmy-owl habitat, Category II Sonoran Desert tortoise habitat and potentially within habitat for the Tucson shovel-nosed snake (TSNS).

About half of the project area is a dense and heavily treed Palo Verde-Mixed Cacti community situated on low rolling hills divided by drainages. The remaining half is a braided series of shallow to slightly incised desert washes, representing a classic Xeroriparian Scrub community. The washes, in the vicinity of the project area, generally trend west to east and straddle and weave across the Table Top Wilderness boundary and the Tohono O'odham Nation.

The Arizona Game and Fish Department's Heritage Data Management System was accessed and the species list for Pima and Pinal Counties were reviewed. Two species on the list occur in the project area, the Sonoran Desert Tortoise and the Cactus Ferruginous Pygmy-owl. In a letter received from the Arizona Game and Fish Department, no concern with special status species was expressed for the project area.

All threatened, endangered and Bureau sensitive species within or near the project area are analyzed in the attached Biological Assessment. The species most likely to be impacted by the project include Nichol Turks Head cactus (*Echinocactus horizonthalonius* var. *nicholii*),

Lesser Long-nosed Bat *(Leptonycteris curasoae yerbabuenae), and* Tucson Shovel-Nosed Snake (*Chionactis occipitalis klauberi*).

Environmental Consequences

Proposed Action

The proposed action may have a short term effect of disturbance of local wildlife due to construction activities. This disturbance will end once the construction is complete. There is a potential for wildlife mortality from vehicle strikes while vehicles are utilizing the access roads to and from the construction area, however this is not expected to be much higher than current levels, since the barriers are expected to reduce the amount of smuggling traffic in the area requiring a response by vehicles.

Nichol Turks Head cactus, Lesser Long-nosed Bat and Tucson Shovel-Nosed Snake habitats would benefit from the reduction of illegal traffic and subsequent law enforcement pursuit within the Wilderness Area immediately north of the barrier. Benefits include reductions in habitat fragmentation due to off road travel, reductions in individuals being either harassed or killed by illegal off road traffic, and reductions in stressors created by off road traffic during breeding and dispersal seasons.

The installation of barriers could indirectly result in increased illegal alien traffic and consequent law enforcement actions in areas away from the barrier locations. Conservation measures are incorporated into the proposed action to mitigate these effects (see *Table 3 Mitigation and Prevention Efforts).*

The habitat for the Nichol Turks Head cactus is located far enough away (and no individuals were located within the project area) that it would not be affected by the activities proposed in this document.

The loss of foraging habitat for the lesser long-nose bat “may affect,” but is “not likely to adversely affect” the U.S. populations, provided conservation measures are incorporated to this Alternative.

The loss of any TSNS Shovel-nosed snakes will be avoided by implementing mitigating measures and “may affect,” but is “not likely to adversely affect” the U.S. populations, provided conservation measures are incorporated to this Alternative.

Waste cleanup with in the area would benefit most wildlife species and could adversely affect others. Benefits include habitat defragmentation by removing waste that is creating an avoidance area; and reduction of threat of ingestion of foreign objects that may injure wildlife. Species that could be adversely affected by the cleanup of waste are small species such as spiders, mice, lizards and some snakes. These species could potentially be using these waste areas for shelter and thermal protection, hiding areas or breeding grounds. Some of the waste provides for attractants for food sources by providing prolonged moisture after rain events and the decaying

of material that could draw small insects and rodents. However, smuggling wastes are not part of the natural ecosystem within the wilderness and there are ample natural areas available for species to hunt, breed, feed and disperse without the waste that has been left behind by illegal activities.

Under the proposed action, the barriers will likely deflect smuggling activities from the Table Top Wilderness and SDNM and increase these activities in the Tohono O'odham Nation. This increase in activity could lead to increased negative impacts to wildlife habitat in otherwise undisturbed lands within the Tohono O'odham Nation lands.

Over the long term, decreased vehicle-related smuggling activities and associated human presence would decrease the potential for wildlife harassment, displacement, and loss of forage and cover areas.

No Barrier Alternative

Impacts would be similar to those described under the proposed action. Additional impacts may occur from the increased patrols by BLM law enforcement – regular patrols could affect wildlife nesting/breeding behavior but would probably be no more impact than the activity associated with illegal smuggling.

No Action Alternative

The No Action Alternative may have some negative effects on the Threatened or Endangered species within the project area. Off-road vehicle activities will adversely affect species. According to USF&W (2010), road construction, use and maintenance pose unique threats to herpetofauna including the Tucson Shovel-nosed snake, its prey base, and the habitat where it occurs through: "(1) fragmentation, modification, and destruction of habitat; (2) increased genetic isolation; (3) alteration of movement patterns and behaviors; (4) facilitation of the spread of non-native species via human vectors; (5) increased recreational access and the likelihood of subsequent, decentralized urbanization; (6) interference with or inhibition of reproduction; and (7) population sinks through direct mortality."

Impacts from waste cleanup are expected to be minimal as the cleanup efforts would be contained to areas that previously disturbed. Impacts from the waste could include but are not limited to: avoidance areas by wildlife based on the amount of waste and the odors associated with the refuse, some wildlife could be injured by the waste by ingestion of foreign objects that are not easily passed.

Over the long term, increased vehicle-related smuggling activities and associated human presence would increase the potential for wildlife harassment, displacement, and loss of forage and cover areas.

Recreation

The proposed project is located near the terminus of BLM Route 8022, which comprises the eastern boundary of the Table Top Wilderness. Motor vehicle access to this area requires a high-clearance vehicle, with four-wheel-drive recommended for safety. Total annual recreation visitation to this area is not known, but is relatively low and likely less than 1,000 visitor-days per year. Recreation visitation includes backcountry driving for scenic viewing and for access to undeveloped recreation opportunities for hiking, hunting, nature photography, and similar pursuits. Overall, recreation visitation to the Table Top Wilderness area has appeared to decline during recent years, due to borderland criminal activities.

Environmental Consequences

Proposed Action

Recreation access provided by BLM Route 8022 will not be impacted by the proposed project. To the extent that the construction of vehicle barriers on the southern boundary of the Table Top Wilderness and at selected sites adjacent to the eastern boundary of the wilderness stem the illegal use of vehicles in wilderness and discourage the prevalence of criminal activities in the area, recreation uses will be impacted by provision of conditions for a safer experience than currently available, and the recreation expectations of wilderness visitors would more likely be met. Overall, there should be no negative impacts to recreation.

No Barrier Alternative

Impacts would be similar to those described in the proposed action. Additional patrols by law enforcement could lead to increased sense of security by recreationalists and may enable additional recreation use in the area.

No Action Alternative

Barring construction of the proposed vehicle barriers, recreation would continue to be impacted by an environment that is unsafe for visitation due to continued use of the area for human and drug smuggling. A setting conducive to backcountry driving for scenic viewing and for access to undeveloped recreation opportunities for hiking, hunting, nature photography, and similar pursuits would not be maintained.

Visual Resources

The Table Top Wilderness is managed to the objectives of VRM Class I, as follows:

> *The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of the change to the characteristic landscape should be very low and must not attract attention* (BLM Manual Handbook 8410-1, "Visual Resource Inventory").

Environmental Consequences

Proposed Action

Low in profile and constructed of steel materials expected to rust to the dominant brown color of the landscape, the proposed vehicle barrier at the southern boundary of the Table Top Wilderness would be located in an area rarely visited except by those the barrier is designed to stop. The extreme eastern part of the barrier would be visible from BLM Route 8022, the vehicle route providing access by legitimate visitors to the area. However, from the wilderness interior, the structure would not dominate the landscape or be overtly visible to the casual observer, and would be expected to blend with the landscape. Impacts resulting from movement of vehicles and equipment used during construction would be restored following construction activities. Thus, the level of change to the characteristic landscape is expected to be very low, and would not attract attention.

Clean-up and remediation efforts may have short-term negative impacts on the line and form of the visual resources but would have long-term positive impacts on the character of the landscape by removing trash and refuse.

Additionally, the restoration of the illegal route would provide for the area to meet the objectives of VRM Class I.

No Barrier Alternative

Without constructed barriers in the project area, negative impacts on visual resources would be less under this alternative than under the proposed action. Impacts from clean-up and remediation would be similar to those described for the proposed action.

No Action Alternative

Barring construction of the proposed vehicle barriers, the visual character of the dominant landscape would continue to be impacted by the proliferation of illegal vehicle routes and accumulations of trash and other debris related to illegal activities. With respect to the form, line, color, and texture of the landscape, the conditions resulting from these activities are expected to have a strong impact. Linear vehicle routes provide strong contrast to the generally unbroken character of the terrain, and a moderate impact to the color and texture of the landscape as lighter sub-soils are exposed by the creation of vehicle routes and accumulations of multi-colored trash mar the landscape.

Special Area Designations

Sonoran Desert National Monument

The Sonoran Desert National Monument is approximately 486,600 acres in extent and was established in January, 2001 by Presidential Proclamation 7397. The SDNM encompasses a functioning desert ecosystem with an extraordinary array of biological, scientific, and historic resources. The monument consists of distinct mountain ranges separated by wide valleys, and

includes large saguaro cactus forest communities that provide excellent habitat for a wide range of wildlife species. The Sonoran Desert National Monument was established for the purpose of protecting these and other "objects" enumerated by Presidential Proclamation 7397.

Table Top Wilderness

Incorporated within the Sonoran Desert National Monument, the 34,400-acre Table Top Wilderness was designated by the Arizona Desert Wilderness Act of 1990. The wilderness area was designated based on the determination that the area has wilderness character and meets the criteria of the Wilderness Act of 1964, being ". . . an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; and (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation."

The wilderness is dominated by the 4,373-foot Table Top Mountain, a familiar landmark in south-central Arizona, and is characterized by a rugged landscape of steeply rising ridges, flat-topped mesas, wide canyons, saguaro cactus forests, and mesquite- and ironwood-lined desert drainage washes.

Environmental Consequences

Proposed Action

Construction of vehicle barriers at the southern boundary of the Table Top Wilderness and at locations adjacent to the eastern boundary of the wilderness are expected to have negligible impact (with "negligible" defined as no known, or undetectable, impacts to resources) to objects of the SDNM. These locations are on or adjacent to existing vehicle routes, although the barriers may be anticipated to extend some distance to either side of the routes. Displacement of cultural artifacts, biological resources, and physical resources would be expected to occur in areas of construction adjacent to the vehicle routes.

Construction of a vehicle barrier at the southern boundary of the Table Top Wilderness would occur in wilderness and would impact the undeveloped and naturalness components of wilderness. A temporary vehicle use route for motorized access of equipment and materials will be required in wilderness extending from BLM Route 8022 to the construction site. This would entail the potential removal of some vegetation and "spot" leveling of terrain with equipment. During construction, naturalness would also be impacted by the sights and sounds of construction activity. The residual impact to naturalness overall would be minor (with "minor" defined as impact that is apparent but small and localized, and contained within the footprint of the disturbance). Impacts to naturalness on the site itself would include the presence of the barrier(s) and would likely last longer than five years; however, the impact to naturalness from

construction and from vehicle access would be short-term (apparent for a period of less than five years).

If effective in blocking illegal vehicle traffic, construction of the barrier at the southern boundary of the Table Top Wilderness would have a moderate impact (with "moderate" defined as effects that are readily apparent over a larger area, although still contained within the footprint of the action) to naturalness by preventing the ongoing clearing of trees, cactus, and shrubs, and compaction of soils into apparent vehicle tracks, that is entailed by creation of new vehicle routes in the Table Top Wilderness by illegal immigration and drug smuggling activities. Fewer abandoned vehicles and less litter would be expected as the proliferation and use of illegal vehicle routes would be prevented and shifted elsewhere.

In addition to these impacts to naturalness, an effective vehicle barrier at the southern boundary of the Table Top Wilderness would also have a minor impact to solitude by preserving the personal sense of "aloneness" that prevails in the Table Top Wilderness.

Impacts to the third component of wilderness, outstanding opportunity for primitive and unconfined types of recreation, are discussed above under the subheading "Recreation."

Impacts resulting from intensified efforts to clean up debris that has accumulated in wilderness from illegal human and drug smuggling activities will have a moderate impact (greater than one year) on the naturalness component of wilderness in the long-term Accumulations of trash at temporary smuggling camps and supply caches detract from the pristine appearance of the Table Top Wilderness and provide unnatural food sources for native wildlife. As gathering places, such sites also encourage the proliferation of footpaths and illegal vehicle activity that acts to further impact naturalness. Removal of concentrations of trash and rehabilitation of footpaths and vehicle routes, will restore – to the extent possible – the natural appearance of the wilderness.

In addition to these impacts to naturalness, intensified efforts to clean up debris and rehabilitate footpaths and vehicle routes will have a minor, short-term (less than one year) impact on the solitude component of wilderness. During clean-up and rehabilitation efforts, use of motor vehicles in wilderness by law enforcement and crews will disrupt the natural sounds and setting of wilderness; however, this impact will last only so long as the work is actively taking place.

No Barrier Alternative

Impacts from the clean-up and remediation efforts would be similar to those described in the proposed action. Impacts from the construction of the barrier

No Action Alternative

Barring construction of the proposed vehicle barriers, objects of the Sonoran Desert National Monument will continue to be impacted through the clearing of saguaro, trees, and other cactus in the creation of illegal vehicle routes. The naturalness and solitude components of wilderness

would be impacted through proliferation of vehicle routes, and from increasing accumulations of trash and debris related to illegal activities in the area. The impact to monument objects and to wilderness is expected to be major (with "major" defined as effects that would be highly noticeable and extend well beyond the footprint of the action).

Major, long-term impacts to the naturalness component of wilderness are anticipated to occur barring intensified efforts to clean up debris that has accumulated in wilderness from illegal human and drug smuggling activities. Concentrations of trash at temporary smuggling camps and supply caches will continue to accumulate, detracting from the pristine appearance of the Table Top Wilderness. These concentrations likely also will continue to provide unnatural food sources for native wildlife and may eventually represent reservoirs of disease due to rotting food items, human waste, and animal activity. The proliferation of footpaths and illegal vehicle activity emanating from such sites will likely increase.

Barring an intensified effort to clean up accumulations of debris resulting from illegal human and drug smuggling, impacts to the solitude component of wilderness are expected to be minor to moderate in the long term. Use of vehicles on the part of law enforcement and work crews would not occur; however, the resulting greater concentrations of trash, footpaths, and vehicle routes would detract from the pristine visual character of the landscape and lead to less of a sense of solitude. Continued, or even increased, use of these sites by smugglers and illegal immigrants likely also would impact solitude.

Hazardous Materials and Solid Wastes

There are no existing hazardous waste sites in the project area.

Environmental Consequences

Proposed Action

Incidental releases of hazardous materials could result in the contamination of soils, groundwater, or surface water during construction and placement of the barriers. Heavy equipment will be necessary to move and assemble the sections of the barriers, and welding equipment will be needed to assemble the pieces. The heavy equipment will be using hydraulic systems to lift and place the barriers and those systems are subject to breakage and leaking of hydraulic fluids. The equipment also needs to be serviced daily with fluids and lubricants, which could spill, leak or drip onto the ground. Mitigation measures will be in place to reduce and eliminate any possible contamination.

Existing solid waste refuse from illegal smuggling would be reduced under this alternative.

No Barrier Alternative

In the short-term potential impacts from hazardous materials and solid wastes would be less than those described under the proposed action because of no risks associated with barrier construction. Long-term impacts would be similar to those described under the proposed action.

No Action Alternative

Under the no action alternative, there would be reduced risk of hazardous materials contaminating the project area, though existing solid waste caches would not be removed.

Public Health and Safety

Currently, this portion of the SDNM and wilderness poses several risks to public health and safety. Recreationists and other members of the public could potentially encounter illegal dangerous activities.

Environmental Consequences

Proposed Action

Under the proposed action, public health and safety risks would likely be reduced in this area because of reduced access points for illegal activities and reduced opportunity for public land users and agency staff to interact with illegal activities.

No Barrier Alternative

Impacts would be similar to those described in the proposed action.

No Action Alternative

Under the no action alternative, the area would continue to pose potential safety risks to recreationists or general members of the public and agency staff.

Tribes, Organizations, and Agencies Consulted

Tribes

The Hopi Tribe

Tohono O'odham Nation

Organizations

Arizona Off-Highway Vehicle Coalition

Arizona State Association of 4-Wheel Drive Clubs

Arizona Trail Riders

Arizona Wilderness Coalition

Friends of the Sonoran Desert National Monument

The Wilderness Society

Agencies

The Arizona Game and Fish Department

Pinal County Sheriff's Office

United States Fish and Wildlife Service

United States Customs and Border Patrol, Tucson Sector

List of Preparers

Angelita Bulletts	Phoenix District Manager
Emily Garber	Lower Sonoran Field Office Manager
Rich Hanson	Sonoran Desert National Monument Manager
Mark Lambert	Ironwood Forest National Monument Manager
Cindy Alvarez	Tucson Field Office Assistant Field Manager
Leah Baker	Phoenix District Planning & Environmental Coordinator
Steve Bird	Lower Sonoran Field Office Wildlife Biologist
Cheryl Blanchard	Lower Sonoran Field Office Archaeologist
Patrick Brasington	Phoenix District Lead Law Enforcement Officer
Chris Horyza	Arizona State Office Planning & Environmental Coordinator
Linda Hughes	Gila District NEPA Coordinator
Kristen Lenhardt	Tucson Field Office Public Affairs Specialist
Ken Mahoney	Arizona State Office National Landscape Conservation System Coordinator
Francisco Mendoza	Tucson Field Office Outdoor Recreation Planner
Dan Moore	Tucson Field Office Hydrologist
Kathy Pedrick	Arizona State Office Special Assistant to the State Director
Dave Scarbrough	Sonoran Desert National Monument Outdoor Recreation Planner
Amy Sobiech	Tucson Field Office Archeologist
Darrell Tersey	Ironwood Forest National Monument Natural Resource Specialist