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August 23, 2005

Memorandum

To: Superintendent, Organ Pipe Cactus National Monument, Ajo, Arizona

From: Field Supervisor

Subject: Reinitiation of Formal Consultation on the Organ Pipe Cactus National Monument General Management Plan

This memorandum is in response to your July 26, 2005, request for reinitiation of consultation on the General Management Plan (GMP) for Organ Pipe Cactus National Monument (OPCNM). Your request was received by us on August 3, 2005, and was made pursuant to section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq., ESA). At issue are the impacts to the endangered Sonoran pronghorn (*Antilocapra americana sonoriensis*, pronghorn). Our original biological opinion for the project was issued on June 26, 1997. Consultation on the General Management Plan was reinitiated three times; biological opinions were issued on November 16, 2001 (R1), April 7, 2003 (R2), and March 10, 2005 (R3). The biological opinion issued November 16, 2001 (R1), included a number of conservation measures for Sonoran pronghorn in the Description of Proposed Action. One of the measures included removing the north boundary fence if the Bureau of Land Management (BLM) agrees to remove livestock from the Cameron and Coyote Flat allotments for a period of at least 20 years, with a minimum two-year advance notice of BLM's intention to return livestock to these areas. This document addresses proposed changes to the aforementioned conservation measure (north boundary fence removal). Herein we revise specific sections of the last biological opinion. Sections not addressed or revised herein remain as presented in the last biological opinion.

**CONSULTATION HISTORY**

- September 2004: BLM closed the Cameron allotment.
- Winter 2004-2005: You removed portions of the six-mile long boundary fence in compliance with the biological opinion issued on November 16, 2001 (R1). You removed all

- four strands from over half of the fence line and provisionally left in place two of the highest strands for most of the remainder of the fence (in areas where two-track roads approach the boundary line on the BLM side, and/or where vehicles have traveled off-road up to and sometimes through the fence). The intent of leaving the portions of the fence in place was to mark the boundary between administrative units, while still remaining passable to Sonoran pronghorn and other wildlife. Additionally, you left all four strands in place in several limited areas.
- boundary line on the BLM side, and/or where vehicles have traveled off-road up to and sometimes through the fence). The intent of leaving the portions of the fence in place was to mark the boundary between administrative units, while still remaining passable to Sonoran pronghorn and other wildlife. Additionally, you left all four strands in place in several limited areas.

Since you partially removed the fence, motorized vehicles have driven cross country from BLM lands across the boundary to access the OPCNM administrative road just south of the BLM-OPCNM boundary, as well as into designated wilderness south of the administrative road.

- March 9, 2005: We received your letter, dated February 28, 2005, requesting reinitiation of formal consultation on the GMP concerning the modification of the north boundary fence and its effects on pronghorn
- April 11, 2005: Staff from your office, BLM, the Cabeza Prieta National Wildlife Refuge, and our office met to resolve issues and develop a plan of action regarding the boundary fence.
- August 3, 2005: We received your letter, dated July 26, 2005, requesting reinitiation of formal consultation on the GMP concerning the modification of the north boundary fence and its effects on pronghorn. The proposed project description in your July 26, 2005, request for reinitiation of consultation was slightly modified from your February 28, 2005, request, based on the recommendations and plan developed at the April 11, 2005 meeting.

## **BIOLOGICAL OPINION**

### **DESCRIPTION OF PROPOSED ACTION – REVISIONS**

The OPCNM included a number of conservation measures for Sonoran pronghorn within the proposed action for the biological opinion, issued November 16, 2001 (R1), on implementation of the GMP, including:

- Removing the north boundary fence if BLM agrees to remove livestock from the Cameron and Coyote Flat allotments for a period of at least 20 years, including at least a two year advance notice of BLM's intention to return livestock to these areas.

This conservation measure will be revised as follows:

#### 1. Coordination

OPCNM staff will work the U.S. Border Patrol and BLM to prevent future government and private motorized vehicle crossings along the boundary between OPCNM and BLM lands except at established legal points.

## 2. Public Education and Outreach

OPCNM will distribute public notices throughout the local area on area closures, fence removal, and land management practices. Additionally, monument staff will post “wilderness” and “NPS boundary” placards on OPCNM lands to notify the recreating public of the different land management areas on either side of the boundary.

## 3. Increased Law Enforcement

Recreational use along the OPCNM and BLM boundary is believed to be highest between December and March, with peak activity occurring on Saturdays. The primary focus for the OPCNM Protections Division is deterring illegal activity along the OPCNM’s southern boundary with Mexico; however, some staff time may be diverted to the northern boundary area during this time frame whenever possible. Although not part of the proposed action, the BLM has agreed to increase their law enforcement presence along the OPCNM and BLM boundary on each Saturday of this time frame.

## 4. Monitoring

Because the actual nature and origin of the vehicle incursions across the OPCNM and BLM boundary is not known with certainty, OPCNM staff will attempt to obtain visual confirmation by posting observers at key locations along the boundary on a periodic basis from December through March of each year. OPCNM staff will also continue to document the number of vehicle incursions on a monthly basis during the same time frame.

## 5. Reevaluation of Fence Modification

If, at the end of the first December through March time frame, monitoring information indicates that the measures above adequately manage cross-boundary motorized vehicle traffic, OPCNM staff may remove the remaining two-strand fence. However, if it is clear that these measures are not controlling the amount of cross-boundary traffic, OPCNM will modify the north boundary with the former Cameron allotment as follows:

- Where all the fence wire has been removed, rebuild a boundary-marking fence consisting of two strands of fence wire with the lowest strand no less than 36 inches above ground and consisting of unbarbed wire and the upper wire no more than 6 inches above the lower wire consisting of either smooth or barbed wire, depending on availability and budget constraints.
- Continue placing white horizontal 4 by 15 inch “National Park System Boundary” and/or “Wilderness Boundary” signs at close intervals (less than 80 feet) between the two wires. Additionally, OPCNM will leave the current old fence wire (two to four strands) in place (e.g., near established roads and tracks and in areas of thick woody vegetation) and will not rebuild the fence located approximately 0.8 mile west of the Bates Well Road because vehicle incursion in this area is unlikely due to the ruggedness of the terrain.

## STATUS OF THE SPECIES/ENVIRONMENTAL BASELINE

### Sonoran Pronghorn

The status and the baseline of the Sonoran pronghorn has remained nearly the same since the date of the last reinitiation (March 10, 2005, on the GMP), with the exception of changes in the status of pronghorn habitat described below.

### **C. Habitat**

#### *Fire*

The winter and spring of 2004/2005 was very wet, resulting in some of the highest productivity of cool season annual plants in recent memory. As these annual plants dried out, they created fuel for wildfire. Historically, native Sonoran Desert annuals probably only rarely formed continuous stands of fine fuels (Humphrey 1974). In addition, native annuals tend to deteriorate rapidly and, by the onset of the monsoon season when lightning becomes an ignition source, the fuels typically are unlikely to carry fire very far. In years with ample winter precipitation, introduced annuals, such as Mediterranean grass (*Schismus arabicus*), Sahara mustard (*Brassica tournefortii*), and garden rocket (*Eruca vesicaria*) tend to form continuous, relatively persistent stands of fine fuels. In 2005, Mediterranean grass combined with high densities of the native woolly plantain (*Plantago ovata*) and other species created fuels adequate to carry fire. Military training, such as strafing and bombing in the tactical ranges, as well as fires set by illegal immigrants or smugglers, provided the ignition sources. Exact numbers are unknown; however, in 2005 roughly 5,000 acres of Sonoran pronghorn habitat has burned to date on the Cabeza Prieta NWR. As of May 25, an estimated 13,000 acres had burned on BMGR-East. However, during the week of June 20, a fire started on BMGR-East that, according to news reports, burned more than 50,000 acres of Sonoran Desert scrub. The amount of pronghorn habitat burned is unknown; however, much of the desert scrub between the Crater Range and the Saucedo Mountains burned in the fire.

Most Sonoran Desert trees, shrubs, and cacti are poorly adapted to fire. On the Tonto National Forest, the Siphon Fire along the Bush Highway heavily impacted saguaros (*Carnegiea gigantea*) and foothill palo verde (*Parkinsonia microphylla*), and reduced white ratany (*Krameria grayi*), wolfberry (*Lycium* sp.), and creosote (*Larrea tridentata*). Twenty-one years after the fire some native species, such as purple three-awn (*Aristida purpurea*) and desert senna (*Cassia armada*) had increased. Foothill palo verde had also apparently recovered with respect to density and canopy cover (Alford and Brock 2002).

Most cacti are very fire intolerant; fires at Saguaro National Park resulted in greater than 20 percent mortality of mature saguaros (Schwalbe *et al.* 2000). Near Palm Springs, California, fires during 1976-1983 resulted in replacement of creosote, white bursage (*Ambrosia dumosa*), and cholla (*Opuntia* sp.) with brittlebush (*Encelia farinosa*) and both native and introduced annual plants (Brown and Minnich 1986). In central Arizona, we have noted loss of cacti, trees, and creosote, and replacement by brittlebush and regrowth of jojoba (*Simmondsia chinensis*) and catclaw acacia (*Acacia greggii*) after fires.

Burning of creosote flats may have little initial effect on pronghorn, and could benefit them in the short-term by increasing visibility. However, fire in the washes could eliminate important forage species and thermal cover. Some areas burned in 2005 experienced nearly complete removal of vegetation cover. Those areas will provide no components of pronghorn habitat until annual or perennial vegetation recovers. During drought years cacti are a major dietary component (44 percent, Hughes and Smith 1990). Consumption of cacti, especially chain fruit cholla (*Cylindropuntia fulgida*), provides an important source of water during hot, dry conditions (Hervert *et al.* 1997). Cholla are readily killed by fire.

The extent and longevity of effects to pronghorn habitat from this year's fires are not yet clear. Monitoring will be needed to determine survivorship and recovery of important forage and cover species, and whether the fires promoted establishment of introduced plants that further increase fire risk. However, even in the best scenario, it is likely to be many years before trees once again dominate wash communities and cholla recover to a point that they are useful forage plants for pronghorn.

## **EFFECTS OF THE PROPOSED ACTION**

### Sonoran Pronghorn

Coordination with the U.S. Border Patrol and BLM to prevent future illegal vehicle crossings between OPCNM and BLM lands, public education and outreach about area closures and fence removal, and increased law enforcement will likely benefit pronghorn by reducing the number of interactions between people and pronghorn and by minimizing pronghorn habitat degradation caused by illegal vehicular activity. Increased law enforcement in areas where pronghorn are present may disturb pronghorn. The level of disturbance to pronghorn, however, would undoubtedly be lower from the increased presence of trained personnel than from illegal vehicular activity.

If reconstruction of the north boundary fence is needed, it could inhibit pronghorn passage between the OPCNM and BLM lands, which would reduce the pronghorn's effective range somewhat and subsequently limit their ability to find forage during dry seasons and years. Inhibiting pronghorn passage, however, should be minimized by installing a fence that is designed to allow for pronghorn passage (two strands of fence wire with the lowest strand no less than 36 inches above ground and consisting of unbarbed wire and the upper wire no more than 6 inches above the lower wire consisting of either smooth or barbed wire). Additionally, placement of wilderness signs at close intervals along the fence line should make the fence visible to pronghorn and thus prevent them from running into the fence. Reconstruction of the fence would be pursued only if needed to prevent off-highway vehicle travel across the north boundary. Controlling vehicle use would offset potential adverse effects of the fence on pronghorn movements.

## CUMULATIVE EFFECTS

Cumulative effects have remained the same since the date of the last reinitiation (March 10, 2005, on the GMP).

## CONCLUSIONS

### Sonoran Pronghorn

After reviewing the current status of the Sonoran pronghorn, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, we reaffirm our biological opinions that the proposed actions are not likely to jeopardize the continued existence of the Sonoran pronghorn. No critical habitat has been designated for this species; therefore, none will be affected. Our conclusion is based on the rationale given in our previous biological opinions and reinitiations on the proposed action, and the following:

1. Actions (e.g., coordination with the U.S. Border Patrol and BLM to prevent future illegal vehicle crossings between OPCNM and BLM lands, public education and outreach about area closures and fence removal, and increased law enforcement) will be taken to prevent and minimize illegal vehicular activity along the boundary between OPCNM and BLM. These are expected to minimize disturbance to pronghorn by reducing the number of interactions between people and pronghorn.
2. If the fence is installed, it will be designed to allow for pronghorn passage which should minimize the passage-inhibiting effect the fence may have on pronghorn.

Thank you for your cooperation and assistance throughout this consultation process. Any questions or comments should be directed to Erin Fernandez (520) 670-6150 (x238) or Jim Rorabaugh (602) 242-0210 (x238).

Sincerely,

/s/ Steven L. Spangle  
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)  
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## LITERATURE CITED

- Alford, E.J., and J.H. Brock. 2002. Effects of fire on Sonoran Desert plant communities. Page 20 *in* W.L. Halvorson and B.S. Gebow (eds.), *Creative Cooperation in Resource Management: Fourth Conference on Research and Management in the Southwestern Deserts*, extended abstracts. USGS Sonoran Desert Field Station, University of Arizona, Tucson, AZ.
- Brown, D.E., and R.A. Minnich. 1986. Fire and changes in creosote bush scrub of the western Sonoran Desert, California. *American Midland Naturalist* 116(2):411-422.
- Hervert, J.J., L.A. Piest, W. Ballard, R.S. Henry, M.T. Brown, and S. Boe. 1997. Sonoran pronghorn population monitoring: progress report. Nongame and Endangered Wildlife Program Technical Report No. 126. Arizona Game and Fish Department, Phoenix, AZ.
- Hughes, K.S., and N.S. Smith. 1990. Sonoran pronghorn use of habitat in Southwest Arizona. Report to Cabeza Prieta National Wildlife Refuge, Ajo, AZ.
- Humphrey, H.H. 1974. Fire in desert and desert grasslands of North America. Pages 365-400 *in* T.T. Kozlowski and C.F. Ahlgren (eds), *Fire and Ecosystems*. Academic Press, New York, NY.
- Schwalbe, C.R., T.C. Esque, P.J. Anning, and W.L. Halvorson. 2000. Exotic grasses, long-lived species, and managing desert landscapes: a case history at Saguaro National Park. Page 87 *in* W.L. Halvorson and B.S. Gebow (eds), *Creative Cooperation in Resource Management: Third Conference on Research and Management in the Southwestern Deserts*, extended abstracts. USGS Sonoran Desert Field Station, University of Arizona, Tucson.