

**United States Department of the Interior
U.S. Fish and Wildlife Service
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019**

April 25, 1990

MEMORANDUM

To: District Manager, Phoenix District Office, Bureau of Land Management, Phoenix, Arizona
From: Field Supervisor

Subject: Biological Opinion for Lower Gila South Resource Management Plan-Goldwater Amendment

This responds to your request of January 23, 1990, for formal consultation pursuant to Section 7 of the Endangered Species Act (Act) of 1973 (as amended), on the Lower Gila South Resource Management Plan (RMP) - Goldwater Amendment. The RMP amendment involves lands that are part of the Barry M. Goldwater Air Force Range excluding lands of the Cabeza National Wildlife Refuge operated by the Fish and Wildlife Service (FWS). The Goldwater Range is located in Maricopa, Pima and Yuma Counties, Arizona. The species of concern are the Sonoran pronghorn antelope (Antilocapra americana sonoriensis), Sanborn's long-nosed bat (Leptonycteris sanborni) and the Tumamoc globeberry (Tumamoca macdougallii). The 90-day consultation period began on January 29, 1990, the date your request was received in our office.

The following biological opinion is based on data presented in the RMP— Goldwater Amendment, the biological evaluation of effects dated January 23, 1990, data in our files and other sources of information.

Biological Opinion

It is my biological opinion that implementation of the Lower Gila South RAP— Goldwater Amendment is not likely to jeopardize the continued existence of the Sonoran pronghorn antelope, Sanborn's long-nosed bat or Tumamoc globeberry.

Background Information

Species Description

The Sonoran pronghorn antelope was listed as an endangered species on March 11, 1967. Critical

habitat was not designated. Smallest and palest of the pronghorn subspecies, the Sonoran pronghorn was historically known from Arizona south of the Bill Williams River east to the Santa Cruz River, south into northern Sonora, Mexico (USFWS 1982) Destruction of grassland and riparian habitat, competition with introduced livestock and other human caused factors has reduced populations. Present range in Arizona is largely confined to the Goldwater Range, Cabeza—Prieta Refuge and Organ Pipe Cactus National Monument.

Sanborn's long-nosed bat was listed as an endangered species on September 30, 1988 . Critical habitat was not designated. Historic range is likely similar to present range. Sanborn's bat annually arrives in Arizona from Mexico or Central America in late May although some individuals were present in mid-April 1990. Maternity colonies have been recorded from Pima, Pinal and Santa Cruz Counties with transient roosts recorded from Cochise and Graham Counties in Arizona. Sanborn's bat leaves Arizona in late September (Cockrum in press) Nectar feeders, Sanborn's bat utilizes columnar cactus and some paniculate agaves for food, their seasonal movements likely cued to flowering and fruiting of its forage species (Cockrum. In press). Loss of roosting habitat and destruction of forage plants are primary threats.

The Tumamoc globeberry, a perennial vine usually found growing under desert trees or shrubs, was listed as endangered on April 29, 1986. No critical habitat was designated. Range of the globeberry includes portions of Pinal and Pima Counties and northern Mexico (Rutman 1990). Threats to the species include urban development, grazing and other impacts on its habitat and required nurse plants.

Project Description

The RMP-Goldwater Plan Amendment provides specific and general management guidance for non-military activities on the Dortion of the Goldwater Range managed by the Bureau of Land Management (BLM). Much of the guidance in the RMP-Goldwater Amendment was developed from the Luke Air Force Range Natural Resources Management Plan (LAFR) developed in 1986. The RMP-Goldwater Plan Amendment is concerned with non-military land uses, soil, water, geological, atmospheric/visual, cultural and botanical and wildlife resources, roads and vehicle use, outdoor recreation uses and perimeter land use and encroachment issues. The Air Force and Marine Corps, primary users of the Goldwater Range, retain responsibility for their actions on the Range. It is important to note that the Goldwater Range is closed to mineral entry and grazing under previous statutes and decisions.

The RMP—Goldwater Amendment includes directives on integrating military and nonmilitary activities, location of utility corridors, water resource development, research for baseline information on soils, botanical resources and cultural resources as well as recreation and road networks. Three Areas of Critical Environmental Concern (ACEC), a Special Recreation Management Area (S~A), a Habitat Management Area (HMA) and the El Camino del Diablo Backcountry Byway are areas requiring special management attention.

The RMP-Goldwater Amendment is a general plan providing guidance and direction for BLM activities. It contains no site specific management actions, and thus, the site specific effects to listed species cannot be documented in this opinion. All actions taken under this plan must be evaluated for site-specific effects to listed or proposed species.

Sonoran pronghorn antelope

As noted in the evaluation of effects provided by the BLM, some actions taken under the RMP-Goldwater amendment are not likely to affect the pronghorn. Activities under cultural resources and maintaining existing utility corridors for future uses are examples of actions not likely to affect this species.

Beneficial effects to the pronghorn are likely to be realized through removal of trespass livestock and control of wild horses and burros within the habitat of the pronghorn. Residual adverse effects could result if livestock and wild horses and burros are not completely removed.

Development of a Habitat Management Plan (HMP) would likely be beneficial.

For much of the guidance in the RMP-Goldwater Amendment, the goal is to reduce surface disturbance and its adverse effect on the pronghorn and its habitat. Since these actions would continue in some fashion, there would continue to be effects to the pronghorn. Examples of these actions would include land use, road uses and recreation.

Outdoor recreation on the Goldwater Range requires combined degradation of lands for facilities and visitor access. The possibility of harassment from visitors is also maintained. Enforcement of off-road vehicle regulations would help to minimize on-going degradation but would not reduce existing losses. Allowing wood gathering on the Goldwater Range may adversely impact Sonoran pronghorn by removing shelter or by disturbance.

Developing and maintaining wildlife waters within pronghorn habitat may not provide benefits to pronghorn but may benefit competitors or predator species to the detriment of the pronghorn.

Sanborn's long-nosed bat

As with the pronghorn, some activities covered under the RMP-Goldwater Amendment are not likely to affect the bat. These would include cultural resources, water resources and soil resources projects.

Protection for maternity and other roost sites as well as feeding habitat is primary. Actions that reduce habitat effects would provide some benefit to the species, remembering there are residual adverse effects. These actions include land use, vehicle use and recreation. Recreation adds another facet in that visitors often enjoy exploring caves and mines. Sanborn's bat is easily disturbed and loss of young bats a serious issue. For human safety, cave openings are often gated shut. If not constructed properly, these gates could have serious implications for bats. The potential for harassment remains with continued visitor access.

Beneficial affects to the bat come from botanical research efforts that may assist in defining their range on the Goldwater Range. Development of a HMP for the species to guide management would likely be beneficial.

Tumamoc globeberry

Activities that do not involve ground disturbance, either directly or indirectly would not likely affect the globeberry. Cultural and water resources activities are likely to be in this category. There is only limited habitat for this endangered plant on the Goldwater Range, thus effects may be more easily defined during implementation.

Retaining ground-disturbing impacts, including recreation, contributes to degradation of globeberry habitats. Destruction of individual plants is possible through unauthorized off-road driving or implementation of projects covered under this plan amendment. It would be valuable to have a full botanical map of the Goldwater Range to delineate globeberry habitat.

Cumulative Effects

The primary use of the Goldwater Range is for aerial and ground based military training exercises. By far, the greatest effect to listed species on the range is from these activities, not BLM management. Since all military training is a federal action, all military activities on the range must be in compliance with Section 7 of the Act.

CANDIDATE SPECIES

The desert tortoise (Gopherus agassizii) and flat-tail horned lizard (Phrynosoma m'calli), both candidate species under active consideration for listing, occur on the Goldwater Range. The implementation of specific projects, consideration of the effects to these species would be appropriate. Measures taken to minimize effects from such actions would assist in their conservation.

The candidate category I Acuma cactus (Echinomastus erectocentrus var. acunensis) may also be affected by ground disturbance. Category I candidates are those for which the FWS has sufficient information to support listing as threatened or endangered. Measures taken to minimize effects to this species would assist in its conservation.

Several other candidate category 2 species also occur on the Goldwater Range. Category 2 species are those species for which the FWS lacks sufficient information to support their listing

as endangered or threatened at this time. Measures taken to minimize effects from plan implementation would assist in conserving these species:

California leaf-nosed bat
Macrotus californicus
Southwestern cave bat
myotis velifer brevis
Yuma puma
Felis concolor browni
Dune sponge
Chamaesyce platysperma
Dune sunflower
Helianthus iveus tephrodes
Giant spanish needle
Palafoxia arida var. gigantea
Desert Christmas tree
Pholisma arenarium
Sand food
Pholisma sonorae

INCIDENTAL TAKE

Section 9 of the Act prohibits any taking (harass, harm, pursue, hurt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding or sheltering. Under the terms of Section 7 (b)(4) and 7(o)(2), taking that is incidental to, not intended as part of, the agency action is not considered taking within the bounds of the Act provided that such taking is in compliance with the incidental take statement.

No incidental take statement is included with this biological opinion as there are no specific projects contained in the proposed action for which take may be defined. As specific projects are developed and undergo consultations, incidental take will be determined.

CONSERVATION RECOMMENDATIONS

Section 7(a) (1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term conservation recommendation has been defined as suggestions of the FWS regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information. Because

of the general nature of the RMP-Goldwater Amendment, specific recommendations are not appropriate; instead we have provided some general recommendations to guide formulation of specific actions:

1. In order to reduce the potential interaction between Sonoran pronghorn and recreationists, where possible, roads leading into pronghorn habitat should be closed and facilities should not be placed in in pronghorn habitat. Control of access may assist in controlling trespass and illegal use of resources by visitors.
2. Wildhorse and burro populations maintained on the Goldwater Range should be precluded from endangered species habitats.
3. A study of benefits and adverse effects of man-made or maintained water resources on Sonoran pronghorn should be considered to assist in long term management.
4. Any gate or sealing technique used to close mines, caves or similar feature should allow for passage of bats into and out of the feature.
5. Areas around caves or mines containing Sanborn's bat habitat may benefit from a protective closure, at least while the bats are in residence.

This concludes formal consultation on this action. Reinitiation of formal consultation is required if the amount or extent of incidental take is exceeded, if new information reveals effects of the action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, or if a new species or critical habitat designated that may be affected by the action. This opinion applies only to the management guidance described in the RMP—Goldwater Range. All other ongoing or future site specific actions will require additional consultation if they affect Sonoran pronghorn antelope, Sanborn's long-nosed bat or Tumamoc globeberry.

If we can be of further assistance, please contact Ms. Lesley Fitzpatrick or me (Telephone: 602/379-4720; FTS 261-4720).

/s/ Sam F. Spiller

cc: Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico (FWS/FWE/HR)
Director, Arizona Game and Fish Department, Phoenix, Arizona

REFERENCES

Cocknum, E. L. Seasonal Distribution of Northwestern Populations of the Long Nosed Bats, Genus Leptonycteris, Family Phyllostomidae. In press

Rutman, S. 1990. Handbook of Federally Endangered, Threatened and Candidate Plants of Arizona, U. S. Fish and Wildlife Service, Phoenix, Arizona 34 pp.

U.S. Department of Interior, Fish and Wildlife Service. 1982, Sonoran Pronghorn Recovery Plan. USFWS, Albuquerque, New Mexico. 26 pp.