



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

2-21-88-F-114

April 5, 1990

MEMORANDUM

TO: District Manager, Bureau of Land Management, Safford, AZ

FROM: Field Supervisor

SUBJECT: Biological Opinion, Draft Safford District Resource Management Plan and Environmental Impact Statement

This responds to your request of January 5, 1990, for formal consultation pursuant to Section 7 of the Endangered Species Act (Act) of 1973, as amended, on the draft "Safford District Resource Management Plan and Environmental Impact Statement" (RMP/EIS) for Bureau of Land Management (BLM) lands in Cochise, Gila, Graham, Greenlee, Pima, and Pinal Counties, Arizona. The species of concern are the spikedace (Meda fulgida), loach minnow (Tiaroga cobitis), Gila topminnow (Poeciliopsis occidentalis occidentalis), desert pupfish (Cyprinodon macularius), peregrine falcon (Falco peregrinus anatum), bald eagle (Haliaeetus leucocephalus), aplomado falcon (Falco femoralis septentrionalis), Sanborn's long-nosed bat (Leptonycteris sanborni), Cochise pincushion cactus (Coryphantha robbinsorum), and Arizona hedgehog cactus (Echinocereus triglochidiatus var. arizonicus). The 90-day consultation period began on January 8, 1990, the date your request was received in our office.

This biological opinion is based on information provided in the RMP/EIS, other information provided by the Safford District staff, data in our files, and other sources of information.

BIOLOGICAL OPINION

It is my biological opinion that implementation of the draft "Safford District Resource Management Plan and Environmental Impact Statement" is 1) not likely to affect the aplomado falcon; 2) not likely to jeopardize the continued existence of the Gila topminnow, desert pupfish, peregrine falcon, bald eagle, Sanborn's long-nosed bat, Cochise pincushion cactus, or Arizona hedgehog cactus; and, 3) not likely to jeopardize the continued existence of the spikedace or loach minnow and not likely to adversely modify the proposed critical habitat of the spikedace or loach minnow.

BACKGROUND INFORMATION

Project Description

The proposed action is implementation by the BLM of the preferred alternative set forth in the Resource Management Plan for public lands of the Safford District in southeastern Arizona. The RMP/EIS provides overall

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management guidance for administration of the District and makes specific land allocation decisions regarding identification of lands eligible for disposal, lands considered high priority for acquisition, designation of Areas of Critical Environmental Concern (ACEC's), and limitations on use of public lands by off-highway-vehicles (OHV's). The RMP/EIS also identifies which wildlife and plant species are to be considered as priority species in land management decisions. Decisions on allocation of resources for livestock grazing were not made in this document, with the exception of 6,521 acres of the San Pedro Riparian National Conservation Area (RNCA). Grazing decisions were made in two prior documents, the 1978 "Upper Gila - San Simon Grazing Environmental Statement" and the 1987 "Eastern Arizona Grazing Environmental Impact Statement". Management of the existing Aravaipa Wilderness (1988) and the San Pedro RNCA (1989) was also addressed in prior documents.

Species Description

The spikedace (Meda fulgida) was listed as a threatened species on July 1, 1986. Critical habitat was proposed on June 18, 1985, for portions of the Verde River and Aravaipa Creek in Arizona and the upper Gila River in New Mexico. The spikedace is a small, silvery minnow reaching a maximum size of about 2.5 inches (Minckley 1973) which inhabits the interface of fast and slow waters in shallow, flowing streams (Propst et al. 1986). Within the Safford District, the spikedace is presently found in Aravaipa and Eagle Creeks.

The loach minnow (Tiaroga cobitis) was listed as a threatened species on October 28, 1986. Critical habitat was proposed on June 18, 1985, for portions of the Gila, San Francisco, and Tularosa Rivers and Dry Blue Creek in New Mexico; and the Blue and San Francisco Rivers, Aravaipa and Campbell Blue Creeks in Arizona. The loach minnow is bottom-dwelling inhabitant of fast water areas (Propst et al. 1988). It is a slender, elongate fish reaching about 2.5 inches in length (Minckley 1973). Within the Safford District, the loach minnow has been documented only in Aravaipa Creek.

The Gila topminnow (Poeciliopsis occidentalis occidentalis) was listed as an endangered species on March 11, 1967. The Gila topminnow is a small, livebearing fish found in the Gila, Sonora, and del la Concepcion River drainages in Arizona, New Mexico, and Sonora, Mexico (Minckley 1973, Vrijenhoek et al. 1985). Within the Safford District, the Gila topminnow has five extant reintroduced populations in Mescal Warm Springs, Cold Spring Seep, Big Spring, Watson Wash, and Martin Well.

The desert pupfish (Cyprinodon macularius) was listed as an endangered species on March 31, 1986. Critical habitat was designated at Quitobaquito Spring, Organ Pipe Cactus National Monument, Arizona and three locations in Imperial County, California. The desert pupfish is a small fish historically common throughout much of the lower Gila River system, the lower Colorado River system, and the Rio Sonoyta system in Arizona, California, and Mexico (Minckley 1973). The Safford District has one reintroduced population of desert pupfish at Howard Well.

The peregrine falcon (Falco peregrinus anatum) was listed as an endangered species on October 13, 1970. It is a medium-sized, blue-gray falcon which inhabits rocky, steep cliffs, preferably near water. Documented nesting sites of peregrine falcon are found within or near the Safford District at Eagle Creek, Dos Cabezas Mountains, Galiuro Mountains, Pinaleno Mountains, Black Rock area, and Aravaipa Creek. Good peregrine falcon habitat also exists in the Mescal and Peloncillo Mountains and the Gila Box, although peregrine nests have not yet been found in those areas. The Willcox Playa area also provides excellent foraging area for migrating peregrine falcons.

The bald eagle (Haliaeetus leucocephalus) was listed as an endangered species on March 11, 1967. This large, primarily fish-eating raptor is found in the southwest as two distinct populations, those which nest in the southwest and those which only winter in the southwest (USFWS 1982). An occupied bald eagle nest is located just below Coolidge Dam and the territory of that pair includes portions of the Safford District. Wintering bald eagles are known from several areas on the Safford District, most notably the Gila River in the Gila Box and below Coolidge Dam and along the San Francisco River.

The aplomado falcon (Falco femoralis septentrionalis) was listed as an endangered species on February 26, 1986. Although there may be potential reintroduction habitat for the aplomado falcon in southeastern Arizona, it is not presently known to occur there.

Sanborn's long-nosed bat (Leptonycteris sanborni) was listed as an endangered species on September 30, 1980. This bat feeds primarily on nectar from agave and saguaro blossoms. It winters south of the U.S. border and migrates into the United States in the spring and summer. No maternity colonies are known in the Safford District, but Sanborn's long-nosed bat has been recorded in several portions of southeastern Arizona, including the Mammoth, Muleshoe, Fort Huachuca, San Pedro River, Paradise/Portal, Fort Bowie, San Simon, and southern Pinaleno Mountains areas (Cockrum, In press). While roosting sites are most likely at higher elevations, much of the foraging habitat is located on lands of the Safford District.

The Cochise pincushion cactus (Coryphantha robbinsorum) was listed as a threatened species on January 9, 1986. A small, unbranched cactus, the Cochise pincushion cactus grows on gray limestone in the Semidesert Grassland at an elevation of about 4,200 feet (Benson 1982). It is not presently known from lands of the Safford District, but is found on State lands identified for BLM acquisition in the area east of Douglas.

The Arizona hedgehog cactus (Echinocereus triglochidiatus var. arizonicus) was listed as an endangered species on October 25, 1979. A dark green, single or multiple stemmed cactus growing 2.5 to 12 inches tall, the Arizona hedgehog cactus inhabits open slopes in the understory of shrubs of

the Madrean Evergreen Woodland/Interior Chaparral ecotone at 3,800 to 5,200 feet elevation (Rutman 1990). Populations of this cactus are known to occur within the Safford District in the Mescal Mountains.

IMPACTS OF THE ACTION

Environmental Baseline

The Safford District has many ongoing management activities including livestock grazing, mining, recreation, road construction and maintenance, wildlife management, water developments, vegetation manipulation, etc. These activities have resulted in various adverse and beneficial effects to federally listed species and together with other human activities in southeastern Arizona have contributed to the present threatened or endangered status of the species of concern in this opinion. General guidance concerning management of most categories of BLM management actions are addressed in the RMP/EIS. Management of the San Pedro RNCA, of most grazing in the District, and of the Aravaipa Wilderness will not change from the ongoing management as set forth by the existing documents listed earlier in this opinion.

Direct and Indirect Effects of the Proposed Action

Land use decisions and changes in management as a result of the implementation of the preferred alternative of the RMP/EIS will affect the nine federally listed species known to occur within the Safford District.

The spikedace and loach minnow will be similarly impacted by the RMP/EIS. While certain provisions of the RMP/EIS will effect potential recovery habitats for these two fish, that is not within the scope of the Section 7 consultation process. Effects addressed in this biological opinion are limited to those which will affect the continued survival of the existing populations. On Aravaipa Creek the designation of an ACEC on Turkey Creek may have some positive effects; however, those effects would be limited by the small geographic scope of that ACEC and the continued grazing of the ACEC. Acquisition of State and private lands in the vicinity of Eagle and Aravaipa Creeks would probably result in overall beneficial affects to the spikedace and loach minnow as would various protections proposed for all riparian areas.

As with the loach minnow and spikedace, the Gila topminnow and desert pupfish will be addressed in this biological opinion only in regards to their existing populations. Continued livestock grazing and livestock and wildlife water developments would exert some adverse affects upon these two fish while the various protections proposed for all riparian areas would result in beneficial impacts.

The peregrine falcon would be impacted by various actions proposed in the RMP/EIS including OHV regulations, ACEC designation, and vegetation manipulation. Certain proposed actions, such as designation of the Black

Rock ACEC, would benefit the species. Actions which may adversely affect the peregrine falcon, such as vegetation manipulation, should be analyzed on an individual project basis to determine if effects would be adverse, neutral, or beneficial.

Protection of riparian areas and stream flows will, in general, have beneficial effects on the bald eagle. Continued grazing and allowance of OHV use in stream channels will negatively impact the bald eagle.

Sanborn's long-nosed bat would be impacted by many of the actions proposed in the RMP/EIS due to the overall effects of the composition of the plant community. Actions such as livestock grazing and vegetation manipulation would be of particular concern for this species through depletion of food supply. Designation of ACEC's would have little impact on Sanborn's long-nosed bat due to management prescriptions which call for continued livestock grazing, vegetation manipulation, and some mining in many of the ACEC's. Establishment of an ACEC at Bat Cave on Eagle Creek may benefit some other bat species, but that cave is not known to be used by Sanborn's long-nosed bat.

The proposed BLM acquisition of State lands west of Guadalupe Canyon would have a beneficial effect on the Cochise pincushion cactus. Because this cactus is not currently known from BLM lands, no other actions in the RMP/EIS would impact the species until and if the State lands on which it occurs are acquired. At that time, such actions as grazing, vegetation manipulation, mineral development, OHV access, etc., may be of concern.

Little effect is expected to the Arizona hedgehog cactus from actions and policies proposed in the RMP/EIS.

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 recommendations has been defined as suggestions of the Fish and Wildlife Service (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. The following constitute FWS conservation recommendations:

1. Private lands along Eagle Creek should be identified as high priority areas for BLM acquisition.
2. We recommend adoption of the alternative B, Aravaipa Watershed ACEC boundaries, as a part of the preferred alternative.

3. The exclusion of grazing, closure to OHV use, withdrawal from mineral entry, leasing, and sales, and acquisition of private and State inholdings should be included in the management prescription for the Aravaipa Watershed ACEC.
4. If BLM does not already hold water rights, an attempt should be made to obtain them for Mescal Warm Springs, Watson Wash, Martin Well, and Howard Well.
5. Public lands being considered for disposal should be analyzed for their value as food source for Sanborn's long-nosed bat and those with significant stands of agave or saguaro should be retained in public ownership or exchanged for other lands with similar value for the bat.
6. Any gating of caves should be done with bat-sensitive techniques to allow for full access to the caves for Sanborn's long-nosed bat and candidate bat species.
7. Plans for vegetation manipulation and treatment should be carefully analyzed for their effects, both direct and indirect, on listed species, and plans modified to eliminate any adverse effects.

INCIDENTAL TAKE

Section 9 of the Act prohibits any taking (harass, harm, pursue, hunt, 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 Sections 7(b)(4) and 7(o)(2), taking that is incidental to, and 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 take of spikedace, loach minnow, Gila topminnow, desert pupfish, peregrine falcon, bald eagle, Sanborn's long-nosed bat, Cochise pincushion cactus, or Arizona hedgehog cactus is expected to occur as a result of general implementation of the RMP/EIS. However, incidental take of several of these species may occur as a result of various site-specific actions taken under the umbrella of the RMP/EIS. Any action taken under this RMP/EIS that is expected to have any effect (beneficial or otherwise) on a federally listed species must undergo additional Section 7 consultation. At that time the potential for incidental take from such actions will be addressed.

In order for the FWS to be kept informed of actions that either minimize or avoid adverse effects or benefit listed species or their habitats, the FWS is requesting notification of the implementation of any conservation recommendations.

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 is listed or critical habitat designated that may be affected by the action.

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



Sam F. Spiller

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

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