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In Reply Refer to:

AESO/SE

02-21-03-F-0020

February 14, 2003

Mr. Jim Golden
Forest Supervisor
Coconino National Forest
Supervisor's Office
2323 Greenlaw Lane
Flagstaff, Arizona 86004-1810

Dear Mr. Golden:

This letter constitutes the U.S. Fish and Wildlife Service's biological opinion based on our review of the proposed Mule Park Land Exchange, Coconino National Forest, Coconino County, Arizona. This biological opinion analyzes the effects of the land exchange on the threatened Mexican spotted owl (*Strix occidentalis lucida*) (MSO), in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Critical habitat for this species has been designated; however, this action does not affect any areas of critical habitat and the effects of the action on critical habitat are not addressed further in this biological opinion.

We received your request for formal consultation and Biological Assessment and Evaluation (BAE) on December 23, 2002. The biological opinion is based on the information provided in the BAE; telephone and electronic mail transmissions with your staff; a field visit conducted with your staff on March 29, 2002; and other sources of information. A complete administrative record of this consultation is on file at this office.

Consultation History

Details of the consultation history are summarized in Table 1.

Table 1. Summary of Consultation History

<i>Date</i>	<i>Event</i>
March 29, 2002	We conducted a field visit with Forest Service staff to the Mule Park Tract and recommended that the Forest Service initiate formal consultation on the land transfer due to potential adverse affects to the MSO.
October 5, 2002	We received the October 2002 Environmental Assessment for the Mule Park Land Exchange.
November 12, 2002	We provided comments on the October 2002 Environmental Assessment for the Mule Park Land Exchange.
December 23, 2002	The Forest Service initiated formal consultation on the effects of implementing the Mule Park Land Exchange on the MSO.
December 24, 2002	We acknowledged your request for formal consultation.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The proposed action is to complete a land exchange between Lawrence W. Knipp and Beverly A. Knipp, through their designated representative, Federal Land Exchange, Inc. and the Forest Service in accordance with the 1987 Coconino National Forest Land and Resource Management Plan. Implementation of the proposed action would: (1) acquire approximately 271 acres of meadow habitat within Mogollon Rim Ranger District for national forest protection and management; and (2) exchange approximately 198 acres of Coconino National Forest lands within the Mogollon Rim Ranger District to a private party.

The 198-acre Mule Park parcel is located approximately two miles northwest of Happy Jack, along Forest Highway 3, Coconino County, Arizona (Township 16 North, Range 9 East, Sections 19, 20, and 29). This land is being exchanged for three separate parcels. These are:

Jim Hop Tract: An 80-acre parcel located approximately 6 miles east-southeast of Happy Jack, accessible from FR 93 (Township 15 North, Range 10 East, Section 5);

Mahan Park Tract: A 92-acre parcel located approximately eight miles south-southeast of Happy Jack, accessible from FR 81 (Township 14 North, Range 9 East, Sections 2 and 3); and

Harris Park Tract: A 98-acre parcel located approximately nine miles south of Happy Jack, accessible from FR 81 (Township 14 North, Range 9 East, Sections 8 and 9).

The Mule Park tract is located on a mountain slope with a ridge top on the north border. Overstory vegetation on the parcel consists of 80 to 100 year-old ponderosa pine, with pockets of mature yellow pine scattered throughout. The area also contains many large Gambel oak trees and thickets of smaller Gambel oak scattered on the steeper slopes. The parcel surrounds a mesic meadow that has already been subdivided into several residential lots. The south side of the parcel contains a borrow pit that holds water most of the year.

STATUS OF THE SPECIES

The MSO was listed as a threatened species in 1993 (USDI 1993). The primary threats to the species were cited as even-aged timber harvest and the threat of catastrophic wildfire, although grazing, recreation, and other land uses were also mentioned as possible factors influencing the MSO population. The Fish and Wildlife Service appointed the Mexican Spotted Owl Recovery Team in 1993, which produced the Recovery Plan for the Mexican Spotted Owl in 1995.

A detailed account of the taxonomy, biology, and reproductive characteristics of the MSO is found in the Final Rule listing the MSO as a threatened species (USDI 1993) and in the Recovery Plan (USDI 1995). The information provided in those documents is included herein by reference. Although the MSO's entire range covers a broad area of the southwestern United States and Mexico, the MSO does not occur uniformly throughout its range. Instead, it occurs in disjunct localities that correspond to isolated forested mountain systems, canyons, and in some cases steep, rocky canyon lands. Surveys have revealed that the species has an affinity for older, well-structured forest, and the species is known to inhabit a physically diverse landscape in the southwestern United States and Mexico.

The primary administrator of lands supporting the MSO in the United States is the Forest Service. Most owls have been found within Forest Service Region 3 (including 11 National Forests in Arizona and New Mexico). Forest Service Regions 2 and 4 (including 2 National Forests in Colorado and 3 in Utah) support fewer owls. According to the Recovery Plan, 91% of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

The U.S. range of the MSO has been divided into six recovery units (RU), as discussed in the Recovery Plan. The Recovery Plan reports an estimate of owl sites for 1990-1993. At that time, the greatest concentration of known owl sites in the United States occurred in the Upper Gila Mountains RU (55.9%), in which this project is located. Similarly, the Forest Service reported a total of approximately 935 protected activity centers (PACs) established on National Forest lands in the Southwestern Region, with 542 PACs (58%) in the Upper Gila Mountains RU (USDA Forest Service, Southwestern Region, February 28, 2001).

A reliable estimate of the numbers of owls throughout its entire range is not currently available (USDI 1995) and the quality and quantity of information regarding numbers of MSO vary by source. USDI (1991) reported a total of 2,160 owls throughout the United States. Fletcher

(1990) calculated that 2,074 owls existed in Arizona and New Mexico. However, Ganey *et al.* (2000) estimates approximately $2,950 \pm 1,067$ (SE) MSOs in the Upper Gila Mountains Recovery Unit (RU) alone. The Forest Service Region 3 most recently reported a total of approximately 980 protected activity centers (PACs) established on National Forest lands in Arizona and New Mexico (USDA Forest Service, Southwestern Region, December 19, 2002). Based on this number of MSO sites, total numbers in the United States may range from 980 individuals, assuming each known site was occupied by a single MSO, to 1,960 individuals, assuming each known site was occupied by a pair of MSOs. The Forest Service Region 3 data are the most current compiled information available to us; however, survey efforts in areas other than National Forest system lands have likely resulted in additional sites being located in all Recovery Units.

The Upper Gila Mountains RU is a relatively narrow band bounded on the north by the Colorado Plateau RU and to the south by the Basin and Range-West RU. The southern boundary of this RU includes the drainages below the Mogollon Rim in central and eastern Arizona. The eastern boundary extends to the Black, Mimbres, San Mateo, and Magdalena mountain ranges of New Mexico. The northern and western boundaries extend to the San Francisco Peaks and Bill Williams Mountain north and west of Flagstaff, Arizona. This is a topographically complex area consisting of steep foothills and high plateaus dissected by deep forested drainages. This RU can be considered a "transition zone" because it is an interface between two major biotic regions: the Colorado Plateau and Basin and Range Provinces (Wilson 1969). Most habitat within this RU is administered by the Kaibab, Coconino, Apache-Sitgreaves, Tonto, Cibola, and Gila national forests. The north half of the Fort Apache and northeast corner of the San Carlos Indian reservations are located in the center of this RU and also support MSOs.

The Upper Gila Mountains RU consists of pinyon/juniper woodland, ponderosa pine/mixed conifer forest, some spruce/fir forest, and deciduous riparian forest in mid- and lower-elevation canyon habitat. Climate is characterized by cold winters and over half the precipitation falls during the growing season. Much of the mature stand component on the gentle slopes surrounding the canyons had been partially or completely harvested prior to the species' listing as threatened in 1993, however, MSO nesting habitat remains in steeper areas. MSO are widely distributed and use a variety of habitats within this RU. Owls most commonly nest and roost in mixed-conifer forests dominated by Douglas fir and/or white fir, and canyons with varying degrees of forest cover (Ganey and Balda 1989, USDI 1995). Owls also nest and roost in ponderosa pine-Gambel oak forest, where they are typically found in stands containing well-developed understories of Gambel oak (USDI 1995).

Since the owl was listed, we have completed a total of 97 formal consultations for the MSO. These formal consultations have identified incidences of anticipated incidental take of MSO in 267 PACs, with 132 of those in the Upper Gila Mountain RU. The form of this incidental take is almost entirely harm or harassment. These consultations have primarily dealt with actions proposed by the Forest Service, Region 3. However, in addition to actions proposed by the Forest Service, Region 3, we have also reviewed the impacts of actions proposed by the Bureau

of Indian Affairs, Department of Defense (including Air Force, Army, and Navy), Department of Energy, National Park Service, and Federal Highway Administration. These proposals have included timber sales, road construction, fire/ecosystem management projects (including prescribed natural and management ignited fires), livestock grazing, recreation activities, utility corridors, military and sightseeing overflights, and other activities. Only one of these projects (release of site-specific owl location information) has resulted in a biological opinion that the proposed action would likely jeopardize the continued existence of the MSO.

In 1996, we issued a biological opinion on Forest Service Region 3's adoption of the Recovery Plan recommendations through an amendment of their Forest Plans. In this non-jeopardy biological opinion, we anticipated that approximately 151 PACs would be affected by activities that would result in incidental take of MSOs, with 92 of those PACs located in the Upper Gila Mountains RU. To date, consultation on individual actions under the amended Forest Plans have resulted in 199 PACs adversely affected, with 88 in the Upper Gila Mountains RU.

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area, the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation, and the impact of State and private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform from which to assess the effects of the action now under consultation.

A. Status of the species within the action area

There are no established PACs or protected habitat within the analysis area or immediately adjacent to the Mule Park Parcel. Approximately 40 acres of restricted pine-oak habitat have been identified within the Mule Park parcel. The Mule Park Parcel has been monitored annually since 1991 and falls within the demography study conducted by Humboldt State University and the University of Minnesota, which began in 1992. Three PACs are located within 0.5 to 0.75 mile of the Mule Park Tract. Surveys have not located owls in the Jacks Canyon (#040402) and Mule Park (040406) PACs for the last several years. Surveys have consistently located owls at the Mahan Mountain (#040404) PAC since 1990.

B. Factors affecting species' environment within the action area

Actions within the project area that affect MSO include both domestic and wild ungulate grazing, recreation, development, and fuels reduction treatments. These activities have the potential to reduce the quality of MSO nesting, roosting, and foraging habitat, and may cause disturbance during the breeding season. The area adjacent to the Mule Park land tract has already been developed and there are numerous social trails leading from these lots to Forest Service land. Fuels-reduction treatments, though critical to reducing the risk of catastrophic wildfire, may also have short-term adverse affects to MSO through habitat modification and disturbance.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action, that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

We estimate that greater than 40 acres of restricted pine-oak habitat will be directly impacted by the land transfer and future construction activities. The land will no longer be managed according to the direction contained in the Coconino National Forest Plan, so we must assume that it will no longer be managed as restricted habitat for the MSO. Although the Mule Park tract is not known to provide nesting habitat for the MSO, it likely provides foraging habitat and space for owl movement given its proximity to three PACs in the area.

The indirect, interrelated, and interdependent actions considered in this opinion include the possible action of home building and additional road construction on the 198-acre parcel after the exchange. These actions would require the harvest of trees, resulting in a reduction in canopy cover and modifying the suitability of the area for prey species (loss of oaks, snags and coarse woody debris). The most significant indirect effects are expected to result from increased disturbances from development and recreation in and around the Mule Park tract. If these parcels become developed, the area that is subjected to high levels of disturbance (e.g., noise, lighting, fuelwood gathering, etc.) will extend beyond the parcel and into adjacent Forest Service lands. Construction will increase the amount of traffic throughout the area and may facilitate even more development in the general area, which could result in additional habitat degradation and/or fragmentation. Increased private development also brings with it the increased potential and risk of damage from wildfire, one of the primary threats to the owl throughout its range. Concentrated human development may also affect dispersing and wintering owls by reducing the spatial extent of habitat (USDI 1995). Mexican spotted owls (particularly juveniles) that have been displaced or forage and/or disperse through disturbed areas may be more vulnerable to predation.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area to be considered in this biological opinion. Future Federal actions are subject to the consultation requirements established under section 7, and therefore, are not considered cumulative in the proposed action. Future actions within the project area that are reasonably certain to occur include recreation, fuels reduction treatments and/or commercial logging on the adjacent private land, increased development, and other associated actions. These activities have the potential to reduce the quality of MSO nesting, roosting, and foraging habitat, cause disturbance to breeding MSOs, and therefore contribute as cumulative

effects to the proposed action. However, because of the predominant occurrence of MSOs on Federal lands in this area, and because of the role of the respective Federal agencies in administering the habitat of the MSO, actions to be implemented in the future by non-Federal entities on non-Federal lands are considered to be of minor impact to the owl population.

Conclusion

The conclusions of this biological opinion are based on full implementation of the project as described in the Description of the Proposed Action section of this document. After reviewing the current status of the MSO, the environmental baseline for the action area, the effects of the proposed Mule Park Land Exchange, and the cumulative effects, it is our biological opinion that the Mule Park Land Exchange Project, as proposed, is not likely to jeopardize the continued existence of the MSO. We make this finding based on the following:

1. No occupied MSO habitat is included in the Mule Park Land Exchange.
2. The proximity of the Mule Park Tract to developed land most likely precludes its use by MSO for nesting.
3. The Mule Park Tract does not comprise a significant portion of MSO habitat within the Upper Gila Mountains RU.

In summary, although we believe the transfer of the 198-acre parcel with greater than 40 acres of restricted pine-oak habitat will adversely effect MSO in the area through loss of habitat, increased disturbance, and increased risk of wildfire, we do not believe that this will jeopardize the continued existence of the species either within the Upper Gila Mountains RU or range-wide.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is defined under regulations at 50 CFR 17.3 to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined at 50 CFR 17.3 as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of the agency action, is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

Amount or Extent of Take Anticipated

The Fish and Wildlife Service does not anticipate that the proposed action will incidentally take any Mexican spotted owls. We believe this for the following reasons:

1. Extensive surveys have not located any MSO in the Mule Park Tract.
2. The habitat most likely does not support nesting spotted owls.
3. Due to the distance and topographic barriers from the Mule Park tract to known MSO PACs, actions that occur within the parcel are not likely to cause abandonment of known PACs.

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. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. We recommend that the Forest Service work with the Fish and Wildlife Service to identify land exchanges that would benefit the Mexican spotted owl.
2. We recommend that the Forest Service work with adjacent land owners to minimize the impact of human-caused wildfire starts and access trails on National Forest System lands.
3. We recommend that the Forest Service work with private landowners and communities adjacent to and within the Coconino National Forest to plan private and commercial development so that ecological diversity and integrity within the forest are not compromised.
4. We recommend that the Forest Service work with the Fish and Wildlife Service to provide information regarding Habitat Conservation Plans (HCP) and Safe Harbor Agreements to private landowners, communities, and local and County governments.

In order for the Fish and Wildlife Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species, we request annual notification of implementation of any conservation actions.

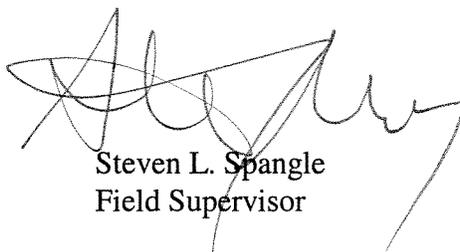
REINITIATION NOTICE

This concludes formal consultation on the action outlined in the request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the

amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this consultation, please contact Shaula Hedwall of our Flagstaff Suboffice at (928) 226-1811 or Tom Gatz at (602) 242-0210 (x240). Please refer to the consultation number, 02-21-03-F-0020, in future correspondence concerning this project.

Sincerely,



Steven L. Spangle
Field Supervisor

cc: Regional Director, U.S. Fish and Wildlife Service, Albuquerque, NM (ARD-ES)
Field Supervisor, U.S. Fish and Wildlife Service, Albuquerque, NM
Forest Biologist, Coconino National Forest, Flagstaff, AZ (Attn: Cecelia Overby)
District Ranger, Mogollon Rim Ranger District, Happy Jack, AZ (Attn: Larry Sears)
Wildlife Staff, Mogollon Rim Ranger District, Happy Jack, AZ (Attn: Beth Humphrey)

John Kennedy, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

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