

BIOLOGICAL OPINION SUMMARY
Hochderffer Fire

Date of opinion: April 25, 1997

Action agency: U.S. Forest Service, Coconino National Forest, Peaks Ranger District

Project: A fire started on the afternoon of June 20, 1996, by a dry lightning strike near the top of Hochderffer Hills. The fire burned approximately 16,130 acres of National Forest land and 450 acres of private land. A December 2, 1996, request for formal consultation was received on December 3, 1996. Prior to the fire, approximately 3,127 acres of nesting/roosting MSO habitat was located on Hochderffer Hills (1,780 acres), the cinder cone containing Walker Lake (197 acres), and White Horse Hills (1,150 acres). The Hochderffer fire consumed 65% (2,017 acres) of the nesting/roosting habitat. Construction of dozer lines, including those through Hochderffer MSO PAC #040232, prevented the remaining 35% of the habitat from being lost. Approximately 434 of the 2,017 acres lost was consumed by backfires, 72 of which were located within the Hochderffer MSO PAC. In total, 214 trees greater than 9 inches dbh were cut and more than 74 acres (2 acres by dozer lines) were adversely impacted by fire suppression activities within the Hochderffer PAC. Prior to the fire, approximately 1,474 acres of foraging habitat occurred within the fire perimeter. All of this habitat was impacted. Fire suppression actions, mainly backfiring, impacted 245 of those acres.

Location: Peaks District, Coconino National Forest, ~20 miles northwest of Flagstaff, AZ

Listed species affected: Mexican spotted owl (*Strix occidentalis lucida*), a listed threatened species. Since critical habitat for the MSO has been enjoined by New Mexico District Court (Coalition of Arizona-New Mexico Counties for Stable Economic Growth versus USFWS, No. 95-1285-M Civil, filed March 4, 1997), no consultation or conferencing is required for critical habitat for this species.

Biological opinion: Nonjeopardy

Incidental take statement:

Level of take: Take of two MSO (one pair) associated with fire suppression activities in MSO PAC #040232 in the form of harm and harassment due to habitat modification and disturbance.

Reasonable and prudent measures: The Forest Service shall minimize impacts to the Hochderffer PAC.

Terms and conditions: Two mandatory terms and conditions are included to implement the

reasonable and prudent measure: 1) The Forest Service shall effectively close all dozer lines constructed for suppression actions within the Hochderffer PAC; and 2) the Forest Service shall monitor the dozer line closures in the Hochderffer PAC to ensure that they remain effectively closed. This should continue for as long as the Hochderffer PAC is designated.

The FWS recognizes that the first term and condition has already been undertaken by the Forest Service.

Conservation recommendations: Three conservation recommendations are provided.

1. To assist in ensuring that MSO are considered in future wildfire suppression actions in MSO habitat, consult a Resource Advisor(s) if time permits before or during suppression actions occurring in such habitat. Resource Advisor(s) in fire situations that threaten MSO and their habitat should be qualified biologist(s) with knowledge of local MSO locations and habitat status, or knowledge of MSO habitat and biology in general. Resource advisors should also serve as field contact representatives responsible for coordination with the FWS during emergency consultation, and should monitor fire suppression activities to ensure that protective measures endorsed by the Incident Commander/Incident Management Team are implemented. For further information on the emergency consultation process, see the FWS's May 12, 1995, letter on the subject.
2. Coordinate with the Service on any actions that may cause disturbance or habitat modification within the Hochderffer PAC in the future. This includes, but is not limited to, the gathering of fuelwood and recreational use, particularly use of the 151E road which is now located within the PAC due to PAC re-delineation following the fire.
3. Continue to monitor the Hochderffer PAC for MSO for a period of 2 years (1997-1998), and effects of the fire on the species. Implementation of these conservation recommendations are discretionary.



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In Reply Refer To:

AESO/SE
2-21-96-F-314

April 25, 1997

Ms. Sharon Metzler
District Ranger
Peaks Ranger District
5075 N. Highway 89
Flagstaff, Arizona 86004

Dear Ms. Metzler:

The U.S. Fish and Wildlife Service (FWS) has reviewed the information provided by the Peaks Ranger District regarding the suppression actions for the Hochderffer fire, which started in the Hochderffer Hills by a dry lightning strike on June 20, 1996. Your December 2, 1996, request for formal consultation was received on December 3, 1996. This document represents the FWS's biological opinion on the effects of the fire and actions taken to control the fire on the Mexican spotted owl (MSO), *Strix occidentalis lucida*, in accordance with section 7 of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531 et seq.).

According to the September 9, 1996, document "Effects of the Hochderffer Fire on Threatened and Endangered Species Habitat" with Amendment #1 dated November 22, 1996, and the effects determination written by wildlife biologist Sandra Nagiller and dated September 17, 1996, the Forest Service determined that the suppression actions taken to control the fire "may effect, and are likely to adversely affect" the MSO and its critical habitat.

The FWS concurs with the Forest Service's determination of effects for the MSO. Since critical habitat for the MSO has been enjoined by New Mexico District Court (Coalition of Arizona-New Mexico Counties for Stable Economic Growth versus USFWS, No. 95-1285-M Civil, filed March 4, 1997), no conferencing or consultation is currently required for critical habitat for this species.

This biological opinion is based on the above-referenced information provided on December 2, 1996, by the Peaks Ranger District, and numerous meetings and conversations between FWS biologists and Forest Service biologists and timber staff (see Consultation History below). Literature cited in this biological opinion does not represent a complete bibliography of literature available on the MSO or the effects of habitat modification on the species, or other subjects that may have been considered in this opinion. A complete administrative record of this consultation is on file in the Arizona Ecological Services Field Office.

It is the FWS's biological opinion that the Hochderffer Project Fire is not likely to jeopardize the continued existence of the MSO.

CONSULTATION HISTORY

A fire started on the afternoon of June 20, 1996, by a dry lightning strike near the top of Hochderffer Hills. It grew to about 10-20 acres in size and was thought to be contained. On Friday, June 21, 1996, winds estimated at 50 knots prevented the use of helicopters and air tankers to control the fire and fueled the fire which was burning in MSO suitable habitat for nesting and roosting. Because the fire grew out of control over the weekend, emergency consultation was not initiated until Monday, June 24, 1996, at which time it was initiated via phone by Forest Service biologist Tammy Randall-Parker who contacted Michele James of the FWS Flagstaff suboffice. On June 26, 1996, Forest Service timber staffperson Scott Ewers, the resource advisor for the fire, took over for Tammy as emergency consultation contact with the FWS. Michele requested a written report at the conclusion of the fire.

Although owl surveys were conducted in 1994 and 1995, and a male bird was located and banded, no Protected Activity Center (PAC) was delineated due to lack of site-specific information and absence of proposed management activities in the area. On June 27, 1996, Forest Service biologist Sandra Nagiller delineated PAC #040232 to represent a pre-fire configuration. This was done using pre-fire aerial photos and owl locations and without looking at a map of the wildfire in order to remain unbiased. Based on a subsequent field visit by Michele James and Tammy Randall-Parker, the PAC was re-delineated to reflect post-fire nesting/roosting habitat.

A site visit was conducted by Michele James and Tammy Randall-Parker on August 15, 1996. The Hochderffer MSO PAC was visited to determine the number and locations of dozer lines constructed for fire suppression purposes. In addition, the effects of these dozer lines on MSO habitat and the need for future closure were discussed. It was decided that these lines should be closed to prevent further public use and disturbance in the PAC following the MSO breeding season, which ends on August 31. However, an August 15 inspection of the dozer line revealed that vehicle use was taking place within the PAC. After a third post-fire survey showed no evidence of MSO in the area, the dozer line was closed before the end of the breeding season on August 23, 1996. In September 1996, the document "Effects of the Hochderffer Fire on Threatened and Endangered Species Habitat" and an effects determination written by Forest Service biologist Sandra Nagiller was forwarded to Michelle James in Flagstaff, Arizona. In response to a request by Michelle, Amendment #1 to the September 1996 document was written on November 22, 1996, to clarify that the FWS was given no information on June 24 or 25, 1996, about suppression actions, and to better explain why suppression actions were taken in MSO critical habitat. A map of the area depicting the PAC, critical habitat, the areas back burned, and fire intensity ratings was also requested and forwarded to the FWS. A second field site visit was conducted on October 2, 1996, attended by Sam Spiller, Bruce Palmer, and Michele James of the FWS and Sharon Metzler, Sandy Nagiller, and Bob Smith of the Peaks

Ranger District. Effects of the fire and fire suppression on the PAC and surrounding MSO critical habitat were viewed and discussed.

Peaks District Ranger, Sharon Metzler, requested formal consultation on December 2, 1996, on the effects of the suppression action taken for the Hochderffer fire on the MSO. No Biological Assessment and Evaluation was provided by the Forest Service. A meeting was held on April 22, 1997, at the Peaks Ranger District office and attended by FWS biologists Michele James, Susan Pultz (Washington DC) and Marilyn Stoll (Olympia, WA), and Forest Service biologist Sandra Nagiller, and timber staff Scott Ewers.

BIOLOGICAL OPINION

DESCRIPTION OF EMERGENCY ACTION

The Hochderffer fire area is located on the Peaks District, Coconino National Forest, approximately 20 miles northwest of Flagstaff, Arizona, within the Little Colorado drainage system. The fire burned approximately 16,130 acres of National Forest land and 450 acres of private land. The burn occurred within four vegetation types that include mixed conifer, ponderosa pine/aspen, ponderosa pine/pinyon pine, and one-seed juniper.

The fire was started by a dry lightning strike near the top of Hochderffer Hills on the afternoon of June 20, 1996. The fire was initially attacked by a ground force using hand tools because the area was too steep to work engines and dozers. The fire made a short canopy run in a ponderosa pine stand to the top of the ridge where it laid down and began to back down slope underneath a mixed conifer stand. Crews worked through the night to secure the lines. By the next morning, the fires were contained but continued to burn actively in the duff, heavy down logs and snags in response to strong and gusty winds. Later on June 21, winds estimated at 50 knots prevented the use of helicopters and air tankers and lead to an uphill run causing a fire entrapment. During the next few days, the fire continued to burn in a northeast direction at rates as high as 140 chains per hour through dense stands of pine and mixed conifer. The fire traveled onto and past Walker Lake, White Horse Hills, north across Deadman Wash, through private land where structures were lost, finally stopping in the Pinyon/Juniper type north of Indian Flat. The fires was contained at 16,580 acres at 6:00 pm on June 27, 1996. Final control time was 6:00 pm on July 3, 1996.

Fire intensities were high in portions of the burned area, but due to the fast moving nature of the fire, the development of water repellent soils was limited. In areas where fire intensities were high, the fire resulted in complete consumption of ground fuels, mortality of live vegetation, and a complete loss of protective vegetative ground cover. The mosaic pattern of fire intensities was formed across the landscape as a result of the interactions of vegetation types, fuel loading, slope, weather, and suppression activities. The major landforms impacted by the fire (roughly 20 percent of the burn area) are the steep slopes of the Hochderffer Hills, Walker Lake, and Whitehorse Hills where multi-storied, uneven-aged mixed-conifer stands occur. The

remaining 80 percent of the fire burned on nearly level valley plains and was generally moderate to light or not burned at all. Several structures on private lands in the northeastern portion of the 10-mile long fire were destroyed.

Prior to the fire, approximately 3,127 acres of nesting/roosting MSO habitat was located on Hochderffer Hills (1,780 acres), the cinder cone containing Walker Lake (197 acres), and White Horse Hills (1,150 acres). The Hochderffer fire consumed 65% (2,017 acres) of the nesting/roosting habitat. Construction of dozer lines, including those through Hochderffer MSO PAC #040232, prevented the remaining 35% of the habitat from being lost. Approximately 434 of the 2,017 acres lost was consumed by backfires. This acreage plus additional habitat outside of the fire perimeter would have been consumed by the wildfire if suppression action had not been taken.

Prior to the fire, approximately 1,474 acres of foraging habitat occurred within the fire perimeter. All of this habitat was impacted. Fire suppression actions, mainly backfiring, impacted 245 of those acres.

Measures discussed during consultation but after the fire was controlled to mitigate additional impacts to MSO include:

- 1) Closure of dozer lines constructed in the PAC to prevent public use and disturbance in the PAC;
- 2) Monitoring of dozer lines to ensure that it remains closed to the public, i.e., that no trespass is occurring;
- 3) Minimization of impacts due to hikers and other recreationers, especially on 151E which lies in the middle of the PAC since it has been reconfigured; and
- 4) Monitoring of owls within the PAC to assist in ensuring adequate protection in the future.

The first of these measures, closure of dozer lines, has already been undertaken by the Forest Service, and the last measure, monitoring of owls, is ongoing.

STATUS OF THE SPECIES

Species Description - Mexican Spotted Owl

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 (58 FR:14248) and in the Final MSO 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, much remains unknown about the species' distribution and ecology. This is especially true in Mexico where much of the MSO's range has not been surveyed. The MSO currently occupies a broad geographic area but does not occur uniformly throughout its range. Instead, it occurs in disjunct localities that correspond to forested isolated mountain systems, canyons, and in some cases, steep, rocky canyon lands. The primary administrator of lands supporting MSO in the United States is the U.S. 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 two National Forests in Colorado and three 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.

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 range of the MSO has been divided into six Recovery Units (RUs), as discussed in the MSO Recovery Plan (USDI 1995). The Recovery Plan reports an estimate of owl sites. An owl "site" is defined as a visual sighting of at least one adult owl or a minimum of two auditory detections in the same vicinity in the same year. This information was reported for 1990-1993. The greatest known concentration of known owl sites in the United States occurs in the Upper Gila Mountains RU (55.9%), followed by the Basin and Range-East RU (16.0%), Basin and Range-West RU (13.6%), Colorado Plateau RU (8.2%), Southern Rocky Mountain-New Mexico RU (4.5%), and Southern Rocky Mountain-Colorado RU (1.8%). Owl surveys conducted from 1990 through 1993 indicate that the species persists in most locations reported prior to 1989.

A reliable estimate of the absolute numbers of MSO throughout its entire range is not 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.

At the end of the 1995 field season, the Forest Service reported a total of 866 management territories (MTs) established in locations where at least a single MSO had been identified (U.S. Forest Service, in litt. November 9, 1995). The information provided at that time also included a summary of territories and acres of nesting/roosting habitat in each RU. Subsequently, a summary of all territory and monitoring data for the 1995 field season on Forest Service lands was provided to the FWS on January 22, 1996. There were minor discrepancies in the number of MTs reported in the November and January data. For the purposes of this analysis we are using the more recent information. Table 1 displays the number of MTs and percentage of the total number of each Forest (U.S. Forest Service, in litt., January 22, 1996).

The Forest Service has converted some MTs into PACs following the recommendations of the Draft MSO Recovery Plan released in March 1995. The completion of these conversions has typically been driven by project-level consultations with the FWS and varies by National Forest.

The Hochderffer Fire area is located within the Upper Gila Mountains RU as defined by the MSO Recovery Plan (USDI 1995). This 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 east 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).

Table 1. Number of MTs as reported by the Forest Service (U.S. Forest Service, *in litt.*, January 22, 1996), percent of MTs as a proportion of the MTs in Forest Service Region 3, and the percent of nesting/roosting habitat surveyed in each Forest by National Forest (Fletcher and Hollis 1994).

National Forest	No.MTs	% of MTs	Percent Nest/roost Habitat Surveyed
A/S	122	14.0	99
Carson	3	0.3	62
Cibola	43	5.0	41
Coconino	155	17.8	87
Coronado	108	12.4	49
Gila	197	22.7	50
Kaibab	6	0.7	96
Lincoln	126	14.5	90
Prescott	10	1.2	42
Santa Fe	33	3.8	44
Tonto	66	7.6	55
TOTAL	869	100	

Habitats within this RU are 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 Recovery Unit and contain

an important habitat link between owl subpopulations at the western and eastern ends of the RU and the subpopulations directly south within the Basin and Range West RU.

This RU consists of deep forested drainages on the Mogollon Plateau. Vegetation generally consists of pinyon/juniper woodland, ponderosa pine/mixed conifer forest, some spruce/fir forest, and deciduous riparian forest in the lower elevation canyon habitat. Climate is characterized by cold winters and over half the precipitation falls during the growing season. Much of the accessible timber on the gentle slopes surrounding the canyons has been partially or completely harvested. Most of the forest habitat on steeper ground that may serve as nesting habitat is in suitable condition.

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).

The Upper Gila Mountains RU contains the largest known concentration of MSO with approximately 55% of known MSO territories (USDI 1995). This RU is located near the center of the MSO's range within the United States and is contiguous to four of the other five RUs within the United States. Because of its central location and its large and relatively continuous spotted owl population, the MSO Recovery Team believes that the population in this RU could be uniquely important to the overall stability and persistence of the MSO population in the United States. Specifically, this population could serve as the source population, providing immigrants to smaller, more isolated populations in other RUs. Although the Recovery Team has no data on dispersal patterns or movements among RUs, the Recovery Team believes that this population should be maintained at current levels and with at least the current level of connectivity within the RU (USDI 1995). Significant discontinuities that develop in the MSO's distribution within this RU, and the loss of habitat to support the local sub-populations, may jeopardize the recovery of the species.

ENVIRONMENTAL BASELINE

Under section 7(a)(2) of the Act, when considering the effects of the action on Federally listed species, the FWS is required to take into consideration the environmental baseline. Regulations implementing the Act (50 CFR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects which have undergone section 7 consultation, and the impacts of State and private actions which are contemporaneous with the consultation in progress. On the Coconino National Forest, past and present Federal, State, private, and other human activities that affect this RU include numerous past timber sales, fuelwood gathering activities, cattle grazing, development of recreation sites, road construction and maintenance activities, and oil and gas development.

The Forest Service has formally consulted on 167 projects in Arizona and New Mexico since August 1993. These projects have resulted in the anticipated incidental take of 44 owls. In addition, the Bureau of Indian Affairs has consulted on one timber sale on the Navajo Reservation which resulted in an anticipated take of four MSO, and a highway reconstruction which resulted in the anticipated incidental take of two MSO. The Federal Highway Administration has consulted on one highway project that resulted in an undetermined amount of incidental take.

EFFECTS OF THE ACTION - Mexican spotted owl

The effects of the action are those that are a result of the activities undertaken to suppress the wildfire. Although the effects of the fire must be, and have been, addressed in the environmental baseline, the wildfire itself is not part of the action.

Actions in the PAC

One PAC (#040232) was affected by Hochderffer fire suppression activities. Surveys in this area were first conducted on Hochderffer Hills in 1984. A male was located and banded ten years later in 1994 and re-located in 1995. An MT was never delineated due to the lack of site-specific information and absence of proposed management activities in the area. No surveys were conducted in 1996 prior to the fire. The Hochderffer PAC was delineated by Forest Service biologist Sandra Nagiller on June 27, 1996, using pre-fire information for the purpose of emergency consultation with the FWS. No owls were located during three surveys conducted after the fire in August 1996 or during one visit conducted on April 22, 1997.

Within the 615 acre Hochderffer PAC, approximately 190 acres (30 percent) was burned, 72 acres as a result of fire suppression activity. The degree of habitat modification varied. On 54 acres (9 percent), the fire was particularly "hot" and caused severe damage to the forest stands. Ground fuels including needle cast and downed logs were reduced to mineral soil. Trees in this area received heavy damage as canopies were eliminated or severely reduced making mortality imminent. Fire damage in other parts of the PAC was less drastic with tree canopies and ground fuel not as severely reduced. Green canopies and some understory vegetation remained in these areas. Most downed logs were lost, however, due to the low fuel moisture content caused by the drought.

Although fire suppression activities reduced the number of acres that would have burned, they did contribute to damage to the PAC. Dozer lines 0.8 mile in length removed 108 trees with 9 inch diameter at breast height (dbh) or greater, thus affecting 1.6 acres, and handlines 0.8 mile in length removed 41 trees with 9+ inches dbh, thus affecting 0.6 acres. Approximately 60 trees that were on fire adjacent to the fire lines were cut to prevent fire brands from blowing across the lines. Five trees were cut for a helispot. In addition, 72 acres were burned out in support of line construction, 20 acres of which was considered a "hot" burn. In total, 214 trees were cut and more than 74 acres of nesting/roosting habitat adversely impacted by fire suppression activities within the Hochderffer PAC.

In summary, fire suppression activities in the PAC appeared to be conducted without sufficient regard to the presence of MSO or its habitat. The FWS acknowledges the Forest Service's primary consideration for protection of life and property as well as its expertise in fire fighting strategies, which also resulted in protecting MSO habitat. However, some of the fire fighting staging activities, such as the helispot, may not have to have been located in MSO habitat. The FWS recognizes the emergency situation in which these decisions took place, but also feels that this highlights the need for a biological resource advisor as part of the fire management team when endangered species habitat is involved with wildfire.

Restricted Habitat

Outside of the PAC, approximately 362 of the 2,017 acres of nesting/roosting habitat lost was consumed by backfires in the vicinity of White Horse Hills and Walker Lake. The majority of this area had been surveyed and, according to Forest Service biologist Sandra Nagiller, no owls were known or believed to occur in either area.

Foraging Habitat

Prior to the fire, approximately 1,474 acres of foraging habitat occurred within the fire perimeter. All of this habitat was impacted. Fire suppression actions, mainly backfiring, impacted 245 of those acres.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, local or private actions that are reasonably certain to occur in the action area considered in the foreseeable future. Future Federal actions are subject to the consultation requirements established under sections 7, and, therefore, are not considered cumulative in the proposed action. In past Biological Opinions, it has been stated that, "Because of the predominant occurrences of the MSO on Federal lands, 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 of minor impact." However, there has been a recent increase of harvest activities on non-Federal lands within the range of the MSO. In addition, future actions within or adjacent to the Forest Service lands that are reasonably expected to occur include urban development, road building, land clearing, logging, fuelwood gathering, and other associated actions. These activities reduce the quality and quantity of MSO nesting, roosting, and foraging habitat, cause disturbance to breeding MSO and would contribute as cumulative effects to the proposed action.

CONCLUSION

After reviewing the current status of the MSO, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the FWS's biological opinion that suppression actions taken on the Hochderffer Fire is not likely to jeopardize the continued existence of the MSO.

INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of ESA, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife 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. Harass is defined as 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 any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or the applicant. 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 a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The Forest Service has a continuing responsibility to regulate the activity covered by this incidental take statement. If the Forest Service (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

For the purposes of consideration of incidental take of MSO by the proposed action under consultation, incidental take can be broadly defined as either the direct mortality of individual birds, or the alteration of habitat that affects the behavior (i.e. breeding or foraging) of birds to such a degree that the birds are considered lost as viable members of the population and thus "taken." They may fail to breed, fail to successfully rear young, raise less fit young, or desert the area because of disturbance or because habitat no longer meets the owl's needs.

In past Biological Opinions, the management territory was used to quantify incidental take thresholds for the MSO (see Biological Opinions provided by the FWS to the Forest Service from August 23, 1993 to date). The current section 7 consultation policy provides for incidental take if an activity compromises the integrity of a PAC. Actions outside PACs will generally not be considered incidental take, except in cases when areas that may support owls have not been adequately surveyed.

Using available information as presented within this document, the FWS has identified conditions of probable take for the MSO associated with PAC 040232. Based on the best available information concerning the MSO, habitat needs of this species, description of the fire, and information furnished by the Forest Service, take is considered for the MSO as a result of the following:

- 1) Cutting of 214 trees greater than 9 inches dbh and back burning within PAC #040232 resulting in a loss of approximately 74 acres of nesting/roosting habitat by the MSO.

AMOUNT OR EXTENT OF TAKE

The FWS anticipates that the Hochderffer fire resulted in the incidental take of one MSO pair (or two MSO) connected with PAC #040232 in the form of harm and harassment due to habitat modification and disturbance from fire suppression activities.

EFFECT OF THE TAKE

In the accompanying biological opinion, the FWS determined that this level of take is not likely to result in jeopardy to the MSO.

REASONABLE AND PRUDENT MEASURES

The FWS believes the following reasonable and prudent measure is necessary and appropriate to minimize take.

- 1) The Forest Service shall minimize impacts to the Hochderffer PAC.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of ESA, the Forest Service must comply with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

- 1) The Forest Service shall effectively close all dozer lines constructed for suppression actions within the Hochderffer PAC.
- 2) The Forest Service shall monitor the dozer line closures in the Hochderffer PAC to ensure that they remain effectively closed. This should continue for as long as the Hochderffer PAC is designated.

The reasonable and prudent measure, and its implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the Hochderffer fire. The FWS recognizes that the first term and condition has already been undertaken by the Forest Service. The FWS believes that implementation of these terms and conditions will remove the potential for increased incidental take of MSO located in PAC 040232. If this level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the FWS the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA 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 an action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. To assist in ensuring that MSO are considered in future wildfire suppression actions in MSO habitat, consult a Resource Advisor(s) if time permits before or during suppression actions occurring in such habitat. Resource Advisor(s) in fire situations that threaten MSO and their habitat should be qualified biologist(s) with knowledge of local MSO locations and habitat status, or knowledge of MSO habitat and biology in general. Resource advisors should also serve as field contact representatives responsible for coordination with the FWS during emergency consultation, and should monitor fire suppression activities to ensure that protective measures endorsed by the Incident Commander/Incident Management Team are implemented. For further information on the emergency consultation process, see the FWS's May 12, 1995, letter on the subject.
2. Coordinate with the Service on any actions that may cause disturbance or habitat modification within the Hochderffer PAC in the future. This includes, but is not limited to, the gathering of fuelwood and recreational use, particularly use of the 151E road which is now located within the PAC due to PAC re-delineation following the fire.
3. Continue to monitor the Hochderffer PAC for MSO for a period of 2 years (1997-1998), and effects of the fire on the species.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the emergency actions outlined in the information supplied by the Forest Service regarding the Hochderffer fire. 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 maintained (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 that was 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.

Ms. Sharon Metzler

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Thank you for your consideration of threatened and endangered species. For further information please contact Michele James or Bruce Palmer. Please refer to the consultation number 2-21-96-F-314, in future correspondence concerning this project.

Sincerely,

for *Kerke A. King*
Sam F. Spiller
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (GM:AZ)(AES)
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM
Forest Supervisor, Coconino National Forest, Flagstaff, AZ
Director, Arizona Game and Fish Department, Phoenix, AZ

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