

United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 FAX: (602) 242-2513

In Reply Refer To:
AESO/SE
22410-2006-FE-0552

December 20, 2006

Ms. Nora B. Rasure
Forest Supervisor
Coconino National Forest
1824 South Thompson Street
Flagstaff, Arizona 86001-2529

RE: Norris Fire Emergency Suppression

Dear Ms. Rasure:

Thank you for your request for formal emergency consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request for emergency consultation was dated August 9, 2006, and received by us on August 11, 2006. At issue are impacts on the threatened Mexican spotted owl (*Strix occidentalis lucida*) (MSO) and its critical habitat associated with suppression actions associated with the Norris Fire, Coconino County, Arizona. Your letter concluded that emergency suppression actions likely adversely affected the MSO. In addition, you determined that the emergency action may have affected, but did not likely adversely affect, MSO critical habitat. We concur with your determination and provide our rationale in Appendix A.

This biological opinion is based on information provided in the August 2006, Biological Assessment (BA) and discussions and electronic mails between Forest Service and FWS staff. Literature cited in this biological opinion is not a complete bibliography of all literature available on the MSO or on other subjects considered in this opinion. 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>
July 31, 2006	The Forest Service called to initiate emergency consultation for a fire that started on July 25, 2006.
August 3, 2006	We received your letter requesting our concurrence with your determination that suppression actions associated with the Norris Fire, may have affected, but did not adversely affect the MSO.
August 9, 2006	We sent your staff an electronic mail explaining why we could not concur with your determination.
August 11, 2006	We received your letter requesting formal consultation for potential adverse effects to MSO resulting from suppression actions associated with the Norris Fire.
August 15, 2006	We acknowledged your request for formal consultation with a 30-day letter.
December 20, 2006	We sent you the final biological opinion.

BIOLOGICAL OPINION

DESCRIPTION OF THE ACTION

At approximately 1045 hours on July 25, 2006, fire suppression crews from the Mormon Lake Guard Station responded to a report of smoke in Township 18 North, Range 8 East, Section 12, southwest corner of the northeast corner. After hiking in to the fire from the Dairy Springs Campground, the Type 6 Engine Captain (also the Incident Commander for the fire), reported the fire was burning in heavy fuels on a steep slope. The point of origin for the fire appeared to be a greater than 24 inch diameter-at-breast height (dbh) ponderosa pine that had been struck by lightning. Crews began constructing hand line and a Type 3 helicopter was ordered. The helicopter arrived at 1317 hours and worked the fire for one hour. Water was dipped out of an earthen stock tank on private property. The flight routes are marked in the BA. By 1606 hours, the crew declared the fire contained and estimated that one acre had burned.

On July 26, 2006, three members of Engine 52 visited the fire and found a few internal smokes, no open flames, and determined that the fire was not a threat, and would not exceed the control line established the day before.

On July 28, 2006, at 1352 hours, fire crews were dispatched to the same location. Initial attack forces included a 20 person hand crew, two engine crews, two fuel crews, and a Type 3 helicopter. All ground forces (approximately 40 people) hiked into the fire. The helicopter

arrived at 1520 hours and dropped approximately 26 buckets of water on the fire. The helicopter worked the fire until 1800 hours. When the resource advisor arrived on the fire, crews had built another control line around the fire and the helicopter was being used to cool hot spots. The helicopter delivered a 72-gallon blivet (collapsible water storage tank) to be used for mop-up the following day. Six chain saws were used to buck burning logs and to fell burning snags and live trees. All unburned material within the fire perimeter was bucked, piled, and burned. By 1830, it began raining and crews left the fire.

On July 29, 2006, one engine crew, three people and a 20 person hand crew returned to the fire. Crews spent all day (approximately 8 hours) mopping up with water from bladder bags and the blivet.

A total of 2.3 acres were by burned by the Norris Fire. No trees torched, two live ponderosa pines (12 and 20 inches dbh), 10 ponderosa pine snags (14 to 22 inches dbh), and one live Gambel oak (~19 inches dbh) were cut down and bucked. The fire burned on a south-facing aspect in ponderosa pine. The resource advisor counted two small white firs and about a half-dozen small oak clumps that burned. Approximately seven logs, greater than 20 inches at midpoint diameter, were consumed by the fire. The Incident Commander estimated that approximately 75% of the ground fuels within the fire perimeter, including downed logs, were consumed by the fire.

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 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 (Recovery Plan) in 1995 (USDI 1995). The final MSO critical habitat rule (USDI 2004) designated approximately 8.6 million acres of critical habitat in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands (USDI 2004). Within this larger area, proposed critical habitat is limited to areas that meet the definition of protected and restricted habitat, as described in the Recovery Plan.

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.

The U.S. range of the MSO has been divided into six recovery units (RU), as discussed in the Recovery Plan. 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). The Kaibab, Coconino, Apache-Sitgreaves, Tonto, Cibola, and Gila National Forests administer most habitat within this RU. The north half of the Fort Apache and northeastern corner of the San Carlos Indian reservations are located in the center of this RU and also support MSO. There are 13 critical habitat units located in the Upper Gila Mountains RU that contain 3.1 million acres of designated critical habitat (USDI 2004).

Historical and current anthropogenic uses of MSO habitat include both domestic and wild ungulate grazing, recreation, fuels reduction treatments, resource extraction (e.g., timber, oil, gas), and development. These activities have the potential to reduce the quality of MSO nesting, roosting, and foraging habitat, and may cause disturbance during the breeding season. Livestock and wild ungulate grazing is prevalent throughout Region 3 National Forest lands and is thought to have a negative effect on the availability of grass cover for prey species. Recreation impacts are increasing on all forests, especially in meadow and riparian areas. There is anecdotal information and research that indicates that owls in heavily used recreation areas are much more erratic in their movement patterns and behavior. Fuels reduction treatments, though critical to reducing the risk of catastrophic wildfire, can have short-term adverse effects to MSO through habitat modification and disturbance. As the population grows, especially in Arizona, small communities within and adjacent to National Forest System lands are being developed. This trend may have detrimental effects to MSO by further fragmenting habitat and increasing disturbance during the breeding season. West Nile Virus also has the potential to adversely impact the MSO. The virus has been documented in Arizona, New Mexico, and Colorado and preliminary information suggests that owls may be highly vulnerable to this disease. Unfortunately, due to the secretive nature of owls and the lack of intensive monitoring of banded individual birds, we will most likely not know when owls contract the disease or the extent of its impact to MSO range-wide.

Currently, high-intensity, stand-replacing fires are influencing ponderosa pine and mixed conifer forest types in Arizona and New Mexico. MSO in the southwestern United States has been shaped over thousands of years by fire. Since MSO occupy a variety of habitats, the influence and role of fire has most likely varied throughout the owl's range. In 1994, at least 40,000 acres of nesting and roosting habitat were impacted to some degree by catastrophic fire in the Southwestern Region (Sheppard and Farnsworth 1995). Between 1991 and 1996, the Forest Service estimated that approximately 50,000 acres of owl habitat has undergone stand-replacing wildfires (Sheppard and Farnsworth 1995). However, since 1996, fire has been influencing stand structure on a landscape scale and has resulted in hundreds of thousands of acres of habitat lost to stand-replacing fires. This is thought to be a result of unnatural fuel loadings, past grazing and timber practices, and a century of fire suppression efforts. The 2002 Rodeo-Chediski fire, at 462,384 acres, burned through approximately 55 PACs on the Tonto and Apache-Sitgreaves National Forests and the White Mountain Apache Reservation. Of the 11,986 acres of PAC habitat that burned on National Forest lands, approximately 55% burned at moderate to high severity. Based on the fire severity maps for the fire perimeter, tribal and private lands likely burned in a similar fashion. We define moderate severity burn as high scorch (trees burned may

still have some needles) and high severity burn as completely scorching all trees (trees completely dead).

Currently, large scale, high-severity wildfire is probably the greatest threat to MSO within the Upper Gila Mountains RU. As throughout the West, fire intensity and size have been increasing within this geographic area. Table 2 shows several high-intensity fires that have had a large influence on MSO habitat in this RU in the last decade. Obviously the information in Table 2 is not a comprehensive analysis of fires in the Upper Gila Mountains RU or the effects to MSO. However, the information does illustrate the influence that stand-replacing fire has on current and future MSO habitat in this RU. This list of fires alone estimates that approximately 11% of the PAC habitat within the RU suffered high-to moderate-intensity, stand-replacing fire in the last ten years.

Table 2. Some recent influential fires within the Upper Gila Mountains Recovery Unit, approximate acres burned, number of PACs affected, and PAC acres burned.

Fire Name	Year	Total Acres Burned	# PACs Burned	# PAC Acres Burned
Rhett Prescribed Natural Fire	1995	20,938	7	3,698
Pot	1996	5,834	4	1,225
Hochderffer	1996	16,580	1	190
BS Canyon	1998	7,000	13	4,046
Pumpkin	2000	13,158	4	1,486
Rodeo-Chediski	2002	462,384	55	~33,000
TOTAL		525,894	84	~43,645

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 RU alone. The Forest Service Region 3 most recently reported a total of approximately 989 protected activity centers (PACs) established on National Forest lands in Arizona and New Mexico (USDI 2005). Based on this number of MSO sites, total numbers in the United States may range from 989 individuals, assuming each known site was occupied by a single MSO, to 1,978 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. Currently, we estimate that there are likely 12 PACs in Colorado (not all currently designated) and 105 PACs in Utah.

Researchers studied MSO population dynamics on one study site in Arizona (n = 63 territories) and one study site in New Mexico (n = 47 territories) from 1991 through 2002. The initial publication of the findings reported that both study populations were declining at $\geq 10\%$ a year and that owl survival rates in Arizona may be declining over time (Seamans *et al.* 1999). The authors noted two possible reasons for the population decline were declines in habitat quality and regional trends in climate. The Final Report, titled “Temporal and Spatial Variation in the Demographic Rates of Two Mexican Spotted Owl Populations,” (*in press*) found that reproduction varied greatly over time, while survival varied little. The estimates of the population rate of change (Λ =Lamda) indicated that the Arizona population was stable (mean Λ from 1993 to 2000 = 0.995; 95% Confidence Interval = 0.836, 1.155) while the New Mexico population declined at an annual rate of about 6% (mean Λ from 1993 to 2000 = 0.937; 95% Confidence Interval = 0.895, 0.979). The study concludes that spotted owl populations could experience great (>20%) fluctuations in numbers from year to year due to the high annual variation in recruitment. However, due to the high annual variation in recruitment, the MSO is then likely very vulnerable to actions that impact adult survival (e.g., habitat alteration, drought, etc.) during years of low recruitment.

Since the owl was listed, we have completed or have in draft form a total of 177 formal consultations for the MSO. These formal consultations have identified incidences of anticipated incidental take of MSO in 370 PACs. 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 two of these projects (release of site-specific owl location information and existing forest plans) have resulted in biological opinions that the proposed action would likely jeopardize the continued existence of the MSO.

In 1996, we issued a biological opinion on Region 3 of the Forest Service adoption of the Recovery Plan recommendations through an amendment to their Land and Resource Management Plans (LRMPs). 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 approximately 91 of those PACs located in the Upper Gila Mountains RU. In addition, on January 17, 2003, we completed a reinitiation of the 1996 Forest Plan Amendments biological opinion, which anticipated the additional incidental take of five MSO PACs in Region 3 due to the rate of implementation of the grazing standards and guidelines, for a total of 156 PACs. Consultation on individual actions under these biological opinions resulted in the harm and harassment of approximately 243 PACs on Region 3 National Forest System Lands. Region 3 of the Forest Service reinitiated consultation on the LRMPs on April 8, 2004. On June 10, 2005, the FWS issued a revised biological opinion on the amended LRMPs. We anticipated that while the Region 3 Forests continue to operate under the existing LRMPs, take is reasonably certain to occur to an additional 10 percent of the known PACs on Forest Service lands. We

expect that continued operation under the plans will result in harm to 49 PACs and harassment to another 49 PACs. To date, consultation on individual actions under the amended Forest Plans, as accounted for under the June 10, 2005, biological opinion has resulted in owls associated with 24 PACs adversely affected (owls associated with 14 PACs harmed and owls associated with 10 PACs harassed), with 10 of those PACs 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 within 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 to assess the effects of the action now under consultation.

A. Status of the species and critical habitat within the action area

The Dairy Springs PAC (#040507) was first surveyed in 1988, and a pair of MSO, nesting status unknown, was located. The MSO pair nested in 1991, 1992, 1993, and 1997, producing two young in each of those years. In addition, the pair attempted to nest in 1999, but the nest failed. Pair occupancy was confirmed 1999-2002 (nest failed in 1999, pair was non-nesting 2000-2001, and pair fledged one young in 2002). Owls were not detected in 2003, but a pair was located again in 2004 (nesting status unknown) and 2005 (one young fledged). In 2006, following the Norris Fire, Forest Service staff visited the PAC in early August and found a single, adult male above one of the historic nest locations.

The Norris Fire burned approximately 2.3 acres within the Dairy Springs PAC. The fire was a few hundred feet from the closest known roost tree, but greater than 0.25 mile from the closest nest location.

The action area is located within critical habitat unit UGM-11. This unit is approximately 145,000 acres in size and includes some of the most productive MSO habitat on the Coconino National Forest.

B. Factors affecting the species and critical habitat within the action area

Past and ongoing factors affecting the MSO and its critical habitat in the action area include power line clearing and recreation. Arizona Public Service has conducted hazard tree removal along the power line that runs near the PAC for the last couple of years. However, recreation is probably the most prevalent activity occurring in the and around the Dairy Springs PAC. Originally, the Arizona Trail was to go through the Dairy Springs PAC (USDI 2001, Consultation #02-21-01-F-0285). However, the trail was moved out of the PAC and located immediately adjacent to the edge of the PAC near Forest Road 240. The trail runs adjacent to the PAC for a distance of less than 1/4 mile on a south facing slope. The Forest Service indicates that no roosting habitat exists in this area, and that the trail is not located within MSO

nesting/roosting habitat, is not within the 100-acre activity center, and is not within 1/4 mile of the roost/nest for this PAC.

The Forest Service indicates that any adverse effects to the MSO associated with the Dairy Springs PAC are expected to result from the use of the existing Mormon Mountain Trail. The Mormon Mountain Trail extends from the proposed Arizona Trail into the Dairy Springs PAC for a distance of about 1.5 miles. The Forest Service indicates that, due to the intersection of the proposed Arizona Trail with the Mormon Mountain Trail, an increase in use of the Mormon Mountain Trail will likely result. The Mormon Mountain Trail has been in use for the last 30 years, and because it was in place prior to the listing of the MSO, use of this trail has never undergone section 7 consultation.

To date, there have not been any wildland urban interface thinning and burning projects conducted in or immediately adjacent to the PAC and wildfire activity has been minimal in the immediate area.

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.

The Norris Fire burned approximately 2.3 acres within the PAC. Effects of wildfires can include the loss of MSO prey habitat components such as herbaceous cover, down logs, and snags. The effects of fire on the prey base of the MSO are complex and are likely dependent on the prey species involved, the variations in fire characteristics, and in the prey habitat involved. Fire intensity, size, and behavior are influenced by numerous factors such as vegetation type, moisture, fuel loads, weather, season, and topography. Fire can effectively alter vegetation structure and composition thereby affecting small-mammal habitat. The initial effects of fire are likely to be detrimental to rodent populations, both through direct mortality and as cover and plant forage species are reduced. However, the Norris Fire was a small, low-severity fire that did little to modify either prey or owl habitat at the PAC or owl home-range scale. The resource advisor counted only two small white firs and about a half-dozen small oak clumps that burned as a result of the fire.

Suppression actions included a few hundred feet of handline within the PAC, mop-up procedures, over 40 people in the PAC with chainsaws, and the use of helicopters to drop water. The greatest impact from suppression to MSO associated with the Dairy Springs PAC was likely from noise disturbance. Noise from all operations, especially chainsaws and low-flying aircraft dropping water, can contribute to the disturbance of MSO. Low-level flights have the greatest potential to disturb owls, because they move slowly and are relatively noisy (Delaney *et al.* 1997). Further, the high-level of human presence (>40 fire personnel on July 28 alone) may have caused disturbance to MSO. Disturbance may have been caused by fire resource personnel digging fire lines, walking and igniting vegetation with drip torches, and monitoring fire conditions from the ground and air. MSO could also be impacted through death or injury by

water or retardant drops if nests or roosts receive direct hits. Additional general effects can include microhabitat alteration and increased edge effects along fire lines.

There are a growing number of studies attempting to describe and quantify the impacts of non-lethal disturbance on the behavior and reproduction of wildlife, and MSO in particular. Delaney *et al.* (1997) reviewed literature on the response of owls and other birds to noise and concluded the following: 1) raptors are more susceptible to disturbance-caused nest abandonment early in the nesting season; 2) birds generally flush in response to disturbance when distances to the source are less than approximately 200 feet and when sound levels are in excess of 95 dBA; and 3) the tendency to flush from a nest declines with experience or habituation to the noise, although the startle response cannot be completely eliminated by habituation. Delaney *et al.* (1999) found that ground-based disturbances elicited a greater flush response than aerial disturbances. Our guidance is to limit potentially disturbing activities to areas ≥ 0.25 mile from MSO nest sites during the breeding season (March 1 through August 31). This corresponds well with the Delaney *et al.*'s (1999) 0.25 mile threshold for alert responses to helicopter flights. In addition, Delaney *et al.* (1999) found that MSO did not flee from helicopters when caring for young at the nest, but fled readily during the post-fledgling period. This may be a result of optimal fleeing decisions that balance the cost-benefit of fleeing. Frid and Dill (2002) hypothesize that this may be explained using predator risk-disturbance theory and perhaps the cost of an adult MSO fleeing during the nestling period may be higher than during the post-fledgling period.

Swarthout and Steidl (2001) found that MSO modified their behavior (e.g., increased perch height) and/or flushed in response to recreationists (hikers). Based on their results, they recommended placing buffer zones (conservative buffer = 180 ft; less conservative buffer = 40 ft.) around known roosting sites to minimize impacts. In a study to assess the effects of hikers on the behavior of nesting MSO, Swarthout and Steidl (2003) noted that female MSOs decreased the amount of time they handled prey by 57% and decreased the amount of time they performed daytime maintenance activities by 30% while hikers were present. In addition, hikers caused both female and male owls to increase the frequency of contact vocalizations. Birds may respond to disturbance during the breeding season by abandoning their nests or young; by altering their behavior such that they are less attentive to the young, which increases the risk of the young being preyed upon or disrupting feeding patterns; or by exposing young to adverse environmental stress (Knight and Cole 1995). There is also evidence that disturbance during years of a diminished prey base can result in lost foraging time which, in turn, may cause some raptors to leave an area or not to breed at all (Knight and Cole 1995). Topographic screening between the area of disturbance and the bird's location creates a noise buffer, and may assist in the reduction of noise disturbance (Knight and Cole 1995).

Dairy Springs PAC

There are multiple nest and roost locations in the Dairy Springs PAC and although no suppression activities occurred within 0.25 mile of a nest location, it is impossible to tell where owls may have been located during the fire and fire suppression activities. Suppression activities within the PAC included constructing handline on two separate days, 30 plus water drops, felling

burning snags and trees within the PAC, and mopping up smoking stumps and logs for a few days. The wildfire and suppression actions occurred between July 25th and July 29th during the MSO breeding season: however, as stated above, raptors tend to be more susceptible to disturbance-caused nest abandonment early in the nesting season rather than late in the season. So, due to the timing of the action, it would be unlikely that if the birds reproduced in 2006 that they abandoned young fledglings. In addition, though there were 30 plus water drops (one hour of water drops on July 25th and 26 water drops on July 28th), these were concentrated in a very small area of the PAC and the flight path did not include the nest core or the majority of the PAC. The helicopter flights stayed well out of the PAC, both on arrival and departure, and only entered the northwest corner of the PAC. In addition, water drops were targeted on a very small area (no more than the 2.3 acre fire perimeter).

Habitat effects from suppression were relatively limited as well. Fire crews cut and bucked only two live ponderosa pines (12 and 20 inches dbh), 10 ponderosa pine snags (14 to 22 inches dbh), and one live Gambel oak (~19 inches dbh). Though this removal occurred within the PAC, it occurred on a south-facing aspect in ponderosa pine. We would argue that this area within the PAC provides more in terms of prey and foraging habitat than nesting or roosting habitat within the PAC. This is supported by the nest and roost locations in the PAC. Most all locations are on the north-northwest facing drainage on the far side of the PAC from the fire.

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 considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. Future actions within the project area that are reasonably certain to occur include urban development, trail creation, grazing, 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.

CONCLUSION

After reviewing the current status of the MSO, the environmental baseline for the action area, the effects of the emergency action and the cumulative effects, it is our biological opinion that the emergency suppression actions did not jeopardize the continued existence of the MSO.

We present this conclusion for the MSO for the following reasons:

- Suppression actions were limited to a very small area of one PAC in the Upper Gila Mountains RU.

- Suppression actions likely resulted in short-term disturbance to the Dairy Springs PAC and did not impact the long-term viability of the site for spotted owls.

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 (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 (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 the 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.

Using available information as summarized within this document, we have identified conditions of possible effects to MSOs within the Dairy Springs PAC associated with emergency suppression actions for the Norris Fire. However, based on the best available information concerning the MSO, habitat needs of the species, the project description, and information furnished by the Forest Service, we do not believe that the short-term disturbance from ground and aerial based suppression operations within the PAC was reasonably certain to effect spotted owls to the point where incidental take occurred. This is based upon the short duration of the disturbance, the time of year it occurred, and the distance of the action from known nest/roost locations in the PAC.

Amount or Extent of Take Anticipated

We do not anticipate that incidental take is reasonably certain to result from the proposed action.

The FWS will not refer the incidental take of any migratory bird or bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. Sections 703-712), or the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. Sections 668-668d).

DISPOSITION OF DEAD, INJURED, OR SICK MSO

Upon locating a dead, injured, or sick spotted owl, initial notification must be made to the Service’s Law Enforcement Office, 2450 West Broadway Suite #113, Mesa, Arizona 85202 (telephone: 480/967-7900) within three working days of its finding. Written notification must be made within five calendar days and should include the date, time, and location of the animal, a photograph, if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or

injured animals to ensure effective treatment and care and in handling specimens to preserve the biological material in the best possible state. If possible, the remains of intact owl(s) shall be provided to this office. If the remains of the owl(s) are not intact or are not collected, the information noted above shall be obtained and the carcass left in place. Injured animals should be transported to a qualified veterinarian by an authorized biologist. Should the treated owl(s) survive, the AESO should be contacted regarding the final disposition of the animal.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purpose 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.

- We recommend that the Forest Service monitor the Dairy Springs PAC during the 2007 breeding season.
- We recommend, if it has not been done already, that the handline constructed within the PAC is rehabilitated by raking duff and debris over the mineral soil to stimulate recovery.
- We recommend that the Forest Service continue to work with the FWS to better communicate with fire staff regarding emergency suppression notification and coordination with resource advisors. We recommend, in early spring 2007, a meeting with fire staff to discuss communication and coordination for the coming fire year.

In order for us to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

REINITIATION - NOTICE

This concludes formal consultation on the action outlined in this biological opinion. As provided in 50 CFR Section 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 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.

We appreciate your efforts to identify and minimize effects from this project. No further section 7 consultation is required for this project at this time. In all future correspondence on this project, please refer to consultation number 22410-2006-FE-0552. Should you require further assistance or if you have any questions, please contact Shaula Hedwall (x103) or Brenda Smith (x101) of our Flagstaff Suboffice at (928) 226-0614.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Flagstaff, AZ
Forest Biologist, Coconino National Forest, Flagstaff, AZ
District Wildlife Staff, Flagstaff Center, Coconino National Forest, Flagstaff, AZ
(Attn: Henry Provencio)

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APPENDIX A – CONCURRENCE

This appendix contains our concurrence with your “may affect, not likely to adversely affect” determination for MSO critical habitat.

MSO Critical Habitat

We concur with your determination that the proposed action may have affected, but did not likely adversely affect the primary constituent elements of MSO critical habitat. We base this concurrence on the following:

- Emergency suppression actions did not result in a significant loss of primary constituent elements within MSO critical habitat. Two live trees, 10 snags, and one Gambel oak were cut during suppression actions, but this did not modify the overall habitat structure within the MSO habitat.
- Though the fire consumed seven large logs and approximately 75% of the ground fuels within the fire perimeter (2.3 acres), this loss was not a result of the suppression action. Suppression, including the handline that was dug around the fire perimeter, most likely reduced the loss of coarse woody debris within the PAC.