

**United States Department of the Interior**  
**U.S. Fish and Wildlife Service**  
**2321 West Royal Palm Road, Suite 103**  
**Phoenix, Arizona 85021-4951**  
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In Reply Refer To:

AESO/SE

02-21-00-F-0398-R1

November 14, 2003

Ms. Nora Rasure  
Forest Supervisor  
Coconino National Forest  
2323 East Greenlaw Lane  
Flagstaff, Arizona 86004-1810

RE: Reinitiation of Oak Creek Powerline Maintenance Project

Dear Ms. Rasure:

Thank you for your request for reinitiation with the U.S. Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended. Your request for reinitiation of formal consultation, dated September 24, 2003, was received by us on September 30, 2003. This letter constitutes a reinitiation of consultation regarding the original October 20, 2000, biological opinion on the Oak Creek Powerline Maintenance Project, Red Rock Ranger District, Coconino County, Arizona. The non-jeopardy biological opinion (#02-21-00-F-0398) considered the effects of initial large-scale clearing of trees and routine and emergency power line maintenance on the threatened Mexican spotted owl (*Strix occidentalis lucida*) (MSO). In addition, on November 12, 2003, you requested formal conferencing on the effects of the action on proposed critical habitat for the MSO.

This reinitiation of consultation is based on information provided in the September 24, 2003, letter; telephone conversations with your staff; and other sources of information. Literature cited in this biological opinion is not a complete bibliography of all literature available on the MSO, forest management and its effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office. We have assigned log number 02-21-00-F-0398-R1 to this project. Please refer to this number in future correspondence on this consultation.

### **Consultation History**

Details of the consultation history are summarized in Table 1.

**Table 1.** Summary of Consultation History

<i>Date</i>	<i>Event</i>
August 28, 2003	Your staff initiated discussion about reinitiating consultation via electronic mail.
September 30, 2003	We received your request for reinitiation on the Oak Creek Powerline Maintenance project.
November 12, 2003	Your staff requested formal conferencing on the effects to proposed MSO critical habitat from the proposed action.

**BIOLOGICAL OPINION RE-INITIATION**

**DESCRIPTION OF THE PROPOSED ACTION**

*The project is as described in the October 20, 2000, biological opinion except for the following changes:*

The October 20, 2000, biological opinion included three conservation measures for future maintenance activities. These conservation measures included:

1. The cutting of hardwoods and evergreens will be limited to trees less than 24 inches diameter at breast height (DBH) in restricted habitat and less than 9 inches DBH in protected habitat.
2. The cutting of snags will be limited to snags less than 12 inches DBH and 8 feet tall within restricted and protected habitat.
3. Activities allowing the use of mechanized equipment will not occur within 0.25 mile of an MSO protected activity center (PAC) during the breeding season (March 1 through August 31).

Arizona Public Service (APS) has conducted an inventory of the trees that are currently considered a hazard to the Oak Creek powerline and as a result are requesting to remove 246 dead and dying trees. Although future maintenance was included in the October 20, 2000, biological opinion, the conservation measures included in the proposed action limited the size of trees that may be harvested (see above). Of the 246 trees to be removed, approximately 29 are less than 12 inches DBH and comply with the original consultation (Table 2). However, approximately 217 dead and dying trees to be removed are greater than 12 inches DBH, or are of an unspecified DBH, and exceed the parameters set in the original consultation. The removal of all of these trees will occur outside the MSO breeding season.

**Table 2.** Dead and dying trees to be removed along Oak Creek Powerline (total = 246 trees).

Tree Species	< 12 inches DBH	12 inches DBH or >	Unspecified DBH
Ponderosa pine	23	70	146
Alder	1	0	0
Cypress	2	1	0
Unspecified spp.	3	0	0
Totals	29	71	146

In addition to the deviation from the proposed action as analyzed in the October 20, 2000, biological opinion, APS is requesting to brush several areas along the powerline to allow for worker and equipment access.

### STATUS OF THE SPECIES

*The following section replaces pages 3-5 of the October 20, 2000, opinion:*

The Mexican spotted owl 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 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).

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 U.S. range of the MSO has been divided into six recovery units (RU), as discussed in the Recovery Plan. 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 percent of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

Currently, high intensity, stand-replacing fires are influencing ponderosa pine and mixed conifer forest types in Arizona and New Mexico. Mexican spotted owl habitat 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, unpublished Forest Service Report). Between 1991 and 1996, the Forest Service estimated that approximately 50,000 acres of owl habitat has undergone stand replacing wildfires (G. Sheppard, Forest Service, Kaibab National Forest, Arizona, pers. comm.). However, since 1996, fire has become catastrophic 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 (all within the Upper Gila RU). 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).

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 northeastern 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).

Currently, catastrophic 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 seven 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 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. Currently, we estimate that there are likely 12 PACs in Colorado (not all currently designated) and 105 PACs in Utah.

Since the owl was listed, we have completed or have in draft form a total of 123 formal consultations for the MSO. These formal consultations have identified incidences of anticipated incidental take of MSO in 350 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 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 approximately 91 of those PACs located in the Upper Gila Mountains RU. In addition, 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. To date, consultation on individual actions under the amended Forest Plans have resulted in 265 PACs adversely affected, with 147 of those in the Upper Gila Mountains RU.

#### Mexican spotted owl critical habitat

The final rule designating critical habitat for the MSO became effective on March 5, 2001 (66 FR 8530). Critical habitat units were designated in New Mexico, Arizona, Utah, and Colorado, but no Region 3 National Forest Service System Lands were designated critical habitat in the final rule. However, following a January 13, 2003, court order, the Fish and Wildlife Service will re-open the comment period on the July 21, 2000, proposed critical habitat rule on November 18, 2003. This will result in the proposal of approximately 3.3 million acres of Region 3 Forest Service lands as MSO critical habitat. The proposed project area lies within a unit of proposed

critical habitat (UGM-13). Within the proposed critical habitat boundaries, all protected or restricted habitat, as described in the Recovery Plan, will be considered proposed critical habitat.

The primary constituent elements of critical habitat for the MSO include those features that support nesting, roosting, and foraging. Because the owls are found in both canyon and forest habitat, primary constituent elements were defined for each type of habitat. The primary constituent elements are:

*Forest habitat:*

- high basal area of large diameter trees
- moderate to high canopy closure
- wide range of tree sizes suggestive of uneven-aged stands
- multi-layered canopy with large overstory trees of various species
- high snag basal area
- high volumes of fallen trees and other woody debris
- high plant species richness, including hardwoods
- adequate levels of residual plant cover to maintain fruits, seeds, and regeneration to provide for the needs of MSO prey species

*Canyon habitat:*

- cooler and often more humid conditions than the surrounding area
- clumps or stringers of trees and/or canyon wall containing crevices, ledges, or caves
- high percent of ground litter and woody debris
- riparian or woody vegetation (although not at all sites)

## **ENVIRONMENTAL BASELINE**

*The following paragraphs are inserted at the beginning of this section (page 5) of the October 20, 2000, biological opinion:*

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.

*The following paragraphs are inserted at the end of the Status of the Mexican Spotted Owl and its Habitat in the Action Area section (page 7) of the October 20, 2000, biological opinion:*

Five MSO PACs occur within 0.5 mile of the Oak Creek Powerline. A portion of the powerline is adjacent to the Sterling, Lost, and Banjo Bill PACs. The Pumphouse Wash and Cave Springs PACs occur 0.5 and 0.25 miles, respectively, from the powerline corridor. Table 3 lists the

survey results for MSO in these PACs in 2000, 2001, and 2002. We have not received information regarding any surveys completed in 2003. As stated in the original consultation, there are no known nest locations for the Lost, Banjo Bill, Pumphouse Wash, or Cave Springs PACs.

**Table 3.** Survey results for PACs within the Oak Creek Powerline Maintenance Project (2000 through 2002).

PAC Name	PAC Number	2000	2001	2002
Sterling	040215	Single owl	Single owl	No information
Lost	040607	No information	Pair occupancy	No information
Banjo Bill	040608	No information	Single owl	No information
Pumphouse Wash	040512	Pair occupancy, non-nesting	Female, nesting status unknown	Pair occupancy, nesting status unknown
Cave Springs	040601	No information	Single owl	No information

Mexican spotted owl critical habitat

The proposed project is in proposed MSO critical habitat unit UGM-13. The unit’s boundaries contain Oak Creek Canyon from Indian Gardens, north to Interstate 40. The western boundary is Sycamore Canyon and the eastern boundary is Highway 89A. The proposed unit includes Woody Mountain, Woody Ridge, and the Sycamore Canyon Wilderness. The area contains 15 to 20 designated MSO PACs, and protected-steep slope and restricted habitat.

The greatest threats to MSO habitat in this proposed critical habitat unit are severe crown fire, fuels reduction projects that reduce and/or remove primary constituent elements, and fragmentation due to development.

**EFFECTS OF THE ACTION**

*Insert the following paragraph at the beginning of this section (page 7) of the October 20, 2000, biological opinion:*

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.



*Insert the following paragraphs after the first full paragraph on page 9 of the October 20, 2000, biological opinion:*

The original consultation analyzed the effects of removing 68 trees (58 live trees and 10 dead trees) from both protected and restricted habitats along five miles of powerline. The change in the proposed action would result in the removal of an additional 246 dead and dying trees. Of those trees, 29 of the trees to be removed are less than 12 inches DBH and 217 of the trees either exceed 12 inches DBH or the DBH was unspecified. The Forest Service is unable to report which trees will be removed from protected steep slope habitat and which trees will be removed from restricted habitat. In addition, we do not know what proportion of the trees are dead or alive.

In addition, the new action would include the clearing of brush to access portions of the powerline. This may reduce small mammal habitat within portions of the powerline corridor. However, this effect may be reduced through the creation of more open areas along the powerline as additional trees are removed.

#### Mexican spotted owl critical habitat

Within the approximate five miles of powerline where tree removal will take place, approximately 1.65 miles are located within protected steep slope habitat, 2.9 miles are located within restricted habitat, and 0.5 miles are located within other forest and woodland habitat. As stated above, along this corridor 246 trees are proposed for removal. Though the effects analysis concludes that canopy closure may be reduced within the powerline corridor, we do not expect an overall reduction in the moderate to high canopy closure that is a primary constituent element of MSO critical habitat. In addition, as stated in the October 20, 2000, biological opinion, improved habitat conditions for MSO prey such as mice, woodrats, and voles may be accomplished through the retention and/or enhancement of large downed logs (> 12 inches diameter at midpoint), grasses, forbs, and shrubs. The cutting of trees along this five-mile corridor adjacent to PACs may create numerous large downed logs and slash piles for prey habitat. The felling of these trees will also result in a more open canopy which may improve conditions for growth of shrubs, grasses, and forbs along this corridor.

In summary, the impacts to the MSO and proposed critical habitat should not differ from those disclosed in the October 20, 2000, consultation. The felling of 217 additional dead and dying trees which exceed the size limit (or for which the size is unknown) as stated in the proposed conservation measures may result in decreased canopy cover, live tree basal area, and the number of large trees and snags in the immediate vicinity of the powerline corridor. However, the action will be spread out over a five mile corridor; no removal of these additional trees will occur during the breeding season; and, prey habitat may be enhanced in some areas. In addition, no trees will be removed from designated protected activity centers.

## CUMULATIVE EFFECTS

*This section remains as written in the October 20, 2000, biological opinion.*

## CONCLUSION

The conclusions of this reinitiation of the October 20, 2000, biological opinion are based on full implementation of the project as described in the Description of the Proposed Action section of this document and the October 20, 2000, biological opinion, including any Conservation Measures that were incorporated into the project design.

After reviewing the current status of the Mexican spotted owl, the environmental baseline for the action area, the effects of the proposed activities and the cumulative effects, it is our biological opinion that the removal of an additional 175 trees that exceed 12 inches DBH, as proposed, is not likely to jeopardize the continued existence of the MSO, and is not likely to destroy or adversely modify proposed MSO critical habitat. We make this finding because the proposed action will not modify habitat within the Sterling, Lost, Banjo Bill, Pumphouse Wash, and Cave Springs PACs or in restricted or proposed critical habitat such that the habitat no longer supports MSO. In addition, the proposed action will reduce the risk of a fire starting in the powerline corridor and burning MSO habitat.

## INCIDENTAL TAKE STATEMENT

*Insert the following paragraph between the two paragraphs under Amount or Extent of Take (page 13) in the October 20, 2000, biological opinion:*

The October 20, 2000, biological opinion anticipated the incidental take of two MSO (one pair) and/or associated eggs/juveniles associated with the Sterling, Banjo Bill, or Lost PACs during the 2001 to 2016 breeding seasons. The incidental take was expected to be in the form of harm and harassment. We anticipated that the incidental take would be difficult to detect because owl day roosts, as well as the location of nest groves or structures, have proven difficult to locate in these PACs. Based on the change in the proposed action, we do not expect a change in the level of anticipated take.

### **Disposition of Dead or Injured Listed Species**

*This section of the October 20, 2000, biological opinion is amended as follows:*

Upon locating a dead, injured, or sick listed species initial notification must be made to our 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 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 dead specimens to preserve the biological material in the best possible state.

### **CONSERVATION RECOMMENDATIONS**

*This section remains as written in the October 20, 2000, biological opinion.*

### **CONFERENCE CONCLUSION**

This concludes reinitiation of consultation and conferencing for the Oak Creek Powerline Maintenance Project. You may ask that we confirm the conference opinion as a biological opinion issued through formal consultation if critical habitat is designated. The request must be in writing. If we review the proposed action and find that there have been no significant changes in the action as planned or in the information used during the conference, we will confirm the conference opinion as the biological opinion for the project and no further section 7 consultation will be necessary.

After listing as threatened or endangered and any subsequent adoption of this conference opinion, the Federal agency shall request reinitiation of consultation if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect the species in a manner or to an extent not considered in this conference opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the species 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.

### **REINITIATION NOTICE**

This concludes formal consultation on the reinitiated 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.

We appreciate your consideration of the threatened Mexican spotted owl. For further information please contact Shaula Hedwall (928) 226-0614 (x103) or Brenda Smith (x101) of our Flagstaff Suboffice. Please refer to the consultation number, 02-21-00-F-0398-R1, in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle  
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)  
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM  
Forest Biologist, Coconino National Forest, Flagstaff, AZ (Attn: Cecelia Overby)  
District Ranger, Coconino National Forest, Red Rock Ranger District, Sedona, AZ  
Wildlife Staff, Coconino National Forest, Red Rock Ranger District, Sedona, AZ  
(Attn: Janie Agyagos)  
Lands Staff, Coconino National Forest, Red Rock Ranger District, Sedona, AZ  
(Attn: Judy Adams)

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

**LITERATURE CITED**

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