

BIOLOGICAL OPINION SUMMARY  
Pot Fire Timber Salvage Project

**Date of opinion:** May 7, 1997

**Action agency:** U.S. Forest Service, Coconino National Forest, Long Valley Ranger District

**Project:** The Forest Service proposes to harvest Pot Fire Timber Salvage cutting units 7, 8, and 9 during the Mexican spotted owl breeding season (March 1 August 31). The Service previously concurred with a determination of "may effect, not likely to adversely affect" for the MSO and its critical habitat on October 11, 1996, and again after re-initiation of consultation on March 28, 1997. The previous concurrences were provided based on breeding season restrictions. The project is currently under contract.

**Location:** Coconino County, Arizona.

**Listed species affected:** Mexican spotted owl (*Strix occidentalis lucida*) (MSO), a listed threatened species.

**Biological opinion:** Nonjeopardy

**Incidental take statement:**

Level of take anticipated: Anticipated take of two MSO associated with the Peck's Point protected activity center (PAC) (040442) due to harvest of cutting unit 7 during the breeding season. Exceeding this level would require re-initiation of formal consultation.

Reasonable and prudent measures: The Forest Service has indicated that the timely completion of the harvest of the three cutting units is important because fire-killed trees quickly lose their commercial value. Given the above, the Service has modified this biological opinion to reflect these concerns for the timing of the action. Specifically, no reasonable and prudent measure or implementing term and condition has been included to minimize incidental take in this particular consultation due to the fact that the timing of the action is critical. The Service believes that this situation is unique given that the project is salvaging fire-killed trees which have already been sold and for which the value is declining rapidly. Situations such as these where appropriate surveys could not be completed in the time available are to be considered the exception and not the rule. Therefore, in this biological opinion, incidental take has been determined with only a reasonable and prudent measure to monitor the Peck's Point PAC.

Terms and Conditions: Two mandatory terms and conditions are included to implement the reasonable and prudent measure. These include monitoring the Peck's Point PAC and reporting the results to the Service.

Conservation recommendations: Two conservation recommendations are provided. Implementation of these conservation recommendations are discretionary.

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

AESO/SE  
2-21-97-F-012

May 7, 1997

Mr. Steven Calish  
Acting District Ranger  
Long Valley Ranger District  
HC 31, Box 68  
Happy Jack, Arizona 86024

Dear Mr. Calish:

The U. S. Fish and Wildlife Service (Service) has reviewed the project proposal for the Pot Fire Timber Salvage Project located on the Long Valley Ranger District. Your April 30, 1997, request for formal consultation was received on April 30, 1997, via facsimile. The Forest Service is requesting consultation on the proposed action of harvesting Pot Fire Timber Salvage cutting units 7, 8, and 9, during the MSO breeding season (pers. comm. John Gerritsma, Long Valley Ranger District). This document represents the Service's biological opinion on the effects of the proposed action on the Mexican spotted owl (*Strix occidentalis lucida*) (MSO) in accordance with section 7 of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531 *et seq.*).

According to the April 30, 1997, letter requesting formal consultation, the Forest Service has determined that the proposed action of harvesting cutting units 7, 8, and 9 during the MSO breeding season "may effect, and is not likely to adversely affect" the MSO. The Service is unable to concur with the Forest Service's determination of effect for the MSO.

This biological opinion is based on information provided in the August 20, 1996, Biological Assessment and Evaluation (BA&E) for the Pot Fire Timber Salvage submitted to the Service with the original request for concurrence on August 21, 1996, the Environmental Assessment/Biological Evaluation for the Pot Fire Salvage (Review Copy, August 16, 1996), the March 21, 1997, letter requesting re-initiation of informal consultation, the Service's October 11, 1996, concurrence letter for the Pot Fire Timber Salvage Project, the Service's March 28, 1997, concurrence letter in response to the Forest Service's request for re-initiation of informal consultation for the Pot Fire Timber Salvage, and conversations with Mark Whitney, wildlife biologist, Long Valley Ranger District, on April 22, 1997, April 25, 1997,

May 2, 1997, May 5, 1997, and conversations with John Gerritsma, planning forester, Long Valley Ranger District on May 1, 1997, and May 2, 1997, and other sources of information. Literature cited in this biological opinion does not represent a complete bibliography of literature available on the MSO or the effects of disturbance or fire 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 Service's biological opinion that the proposed action of harvesting cutting units 7, 8, and 9 during the MSO breeding season is not likely to jeopardize the continued existence of the MSO.

## CONSULTATION HISTORY

The Pot Fire Timber Salvage Project was planned under the Timber Salvage Public Law 104-19. Under the Memorandum of Agreement (MOA) completed for this law (August 9, 1995), a Level I Team was established on July 19, 1996, composed of Michele James from the Service and Mark Whitney from the Forest Service. The Level I Team facilitated early involvement by the Service in the salvage sale development. This included a July 24, 1996, field visit and subsequent review and input from the Service into the draft biological evaluation. The Forest Service requested concurrence with a "may effect, not likely to adversely affect" determination for the MSO on August 21, 1996. The Service concurred with this determination on October 11, 1996, based in part on the fact that the Forest Service's BA&E stated that salvage operations would be conducted outside the MSO breeding season, therefore, there would be no direct disturbance to MSO.

On March 21, 1997, the Forest Service requested re-initiation of informal consultation for the Pot Fire Timber Salvage Project. Re-initiation was requested because only a small portion of one cutting unit had been treated prior to the 1997 MSO breeding season due to the settlement of the Silver versus Thomas lawsuit and the weather conditions that winter. The Forest Service requested re-initiation based on the modified action to complete harvest activities during the MSO breeding season with special conditions for cutting units 4, 7, 8, and 9 which are located proximate to four MSO protected activity centers (PACs). The Forest Service deemed that harvest during the MSO breeding season is necessary because the value of fire-killed trees would be reduced the longer they remain standing (pers. comm. Mark Whitney, Long Valley Ranger District). On March 28, 1997, the Service concurred with the Forest Service's determination of "may effect, not likely to adversely affect" the MSO, based on specific special conditions for cutting units 4, 7, 8, and 9. The special conditions were proposed by the Forest Service and modified slightly by the Service. These conditions ensured that, based on monitoring, MSO were nesting over 0.25 miles from cutting units, or that MSO were confirmed to be non-nesting in 1997. The Service's concurrence letter stated that if the special conditions were met as stated by the Service, then harvest activity in the four cutting units could occur during the breeding season without adverse effect to MSO.

On April 22, 1997, and April 25, 1997, Mark Whitney from the Forest Service reported results of MSO monitoring in the Aztec PAC (040419) to Michele James of the Service's Flagstaff Suboffice. Monitoring on April 21 and April 25, 1997, indicated that a pair of MSO were located in a continually used day roost over 0.25 miles from cutting unit 4. On April 25, 1997, the Service communicated via electronic mail that we believed the conditions of the Service's March 28, 1997, concurrence letter had been met for cutting unit 4. Therefore, the Forest Service released this cutting unit to the contractors for cutting during the breeding season. In the conversation between Michele James and Mark Whitney which took place on April 22, 1997, it became evident that the Forest Service believed it would be very difficult to fulfill the special conditions of the Service's March 28, 1997, concurrence letter for the three remaining PACs (040407, 040434, and 040442) due to inaccessibility created by the deep canyons characteristic of these PACs. At this time, the cost to the government from claims laid by the timber company under contract were discussed, as well as the possibility of entering into formal consultation. On April 29, 1997, Steve Calish, Acting District Ranger of the Long Valley Ranger District, discussed the project with Bruce Palmer of the Service and indicated that the Forest Service had decided that they would like to enter into formal consultation so that harvest actions could continue in the remaining three cutting units (7, 8, and 9) during the MSO breeding season. On April 30, 1997, the Forest Service requested formal consultation for this action. On May 1, 1997, Mark Whitney provided the Service with past MSO location information for PACs 040407, 040434, and 040442.

The Service discussed the draft biological opinion with the Forest Service on May 2, 1997. The primary focus of the conversation were discussions involving the appropriateness of a draft reasonable and prudent measure to complete the harvest of cutting unit 7 outside the MSO breeding season. Discussions included the possibility of delaying the harvest of only a portion of cutting unit 7, but this option was discarded from further discussion based on the position of both cutting unit 7 and the Peck's Point PAC. The Forest Service indicated that they were concerned that the delay of harvesting cutting unit 7 until after the MSO breeding season would result in high costs to the Forest Service if the contractor were to enter the claims process. Specifically, the Forest Service indicated that delay in the harvest of the 300 thousand board feet of timber in cutting unit 7 could cost the government over \$48,000. The Forest Service indicated that they would prefer to incur incidental take of MSO associated with the Peck's Point PAC than to pay the contractor's claims. This biological opinion reflects the concerns of the Forest Service in this matter. Specifically, it anticipates the incidental take of MSO associated with disturbance and provides no reasonable and prudent measure to minimize this take. The Forest Service reviewed the opening paragraphs, the consultation history, and description of the proposed action of the draft biological opinion for accuracy on May 5, 1997.

## BIOLOGICAL OPINION

### DESCRIPTION OF PROPOSED ACTION

The Pot Wildfire was detected on June 21, 1996, in a small drainage proximate to the West Clear Creek Wilderness. The fire was contained on June 23, 1996, with a final size estimate of 6,143 acres. The Pot Wildfire lies entirely within the West Clear Creek watershed, and within the Maxwell and Iron Mine 10K management units. Four MSO PACs were impacted by the Pot Wildfire. Approximately 3,565 acres of MSO critical habitat was also affected in critical habitat unit (CHU) AZ-CCNF-2.

According to the Environmental Assessment/Biological Evaluation for the Pot Fire Timber Salvage (August 16, 1996), the preferred alternative proposed to salvage between 2.8 and 5.3 million board feet of dead/dying ponderosa pine between 5 and 23.9 inches diameter at breast height (dbh), on a total of 2,220 acres. All salvage is to occur within the boundaries of the Pot Fire. The harvest prescription indicates that for ponderosa pine trees between 12-18 inches dbh, trees would be removed which have no evidence of green needles, or that have 10% or less of a green crown. In addition, trees would be removed if they show crown consumption, pitching on the bole, bole scorch in excess of 50%, or indicators of high intensity fire at the base of the tree or adjacent to the tree. For ponderosa pine  $\geq$  18 inches dbh, trees would be removed when the residual stocking of fire-killed or imminent snags remain at 2-4 per acre. Trees would be removed that have less than 10% live crown. Trees would also be removed when live crown is between 10 and 30% and one or more of the following conditions is evident: greater than 50% bole scorch, a high degree of pitch, occurrence within high intensity fire zones, extreme lean, and the residual stocking of fire-killed or imminent snags remains at 2-4 snags per acre where they occur. Emphasis is placed on retaining the largest snags where available, with all snags being at least 18 inches dbh.

All cutting units in the Pot Fire Timber Salvage Project have been harvested to date except for cutting units 7, 8, and 9, for reasons explained in the above Consultation History. Three of the four PACs effected by the Pot Wildfire and located proximate to salvage cutting units, occupy the area within and along Willow Valley, upstream from the confluence with Clover Creek which drains into West Clear Creek. The fourth PAC lies within West Clear Creek. All affected PACs are located within canyons. The following summarizes effected PACs, the size of each PAC, and the amount of each PAC effected to some degree by the Pot Wildfire:

- Aztec PAC (#040419 = 650 acres, 100% within fire)
- Pecks Point PAC (#040442 = 722 acres, 490 acres (70%) within fire)
- Willow Valley PAC (#040407 = 713 acres, 52 acres (8%) in fire)
- Tramway PAC (#040434 = 742 acres, 28 acres (4%) in fire)

The entire Aztec PAC lies within the Pot Wildfire perimeter. An estimated 75% of the trees within the PAC are predicted to have been killed. The 1993-1996 nest/roost site for this PAC

was associated with a rock ledge. Within the Pecks Point PAC, the area of the 1994 and 1996 roost site is included within the wildfire perimeter. Only small portions of the Willow Valley PAC and the Tramway PAC are located within the wildfire perimeter. The nest/roost sites for the Willow Valley and Tramway PACs are not located within the Wildfire perimeter.

## 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 Forest in Arizona and New Mexico). Forest Service Regions 2 and 4 (including 2 National Forests in Colorado and 3 in Utah) support fewer owls. According to the Recovery Plan, 91% of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

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 suitable 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 Service 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).

**Table 1.** Number of management territories (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 suitable habitat surveyed in each Forest by National Forest (Fletcher and Hollis 1994).

National Forest	Number of MTs	Percent of MTs	Percent Suitable Habitat Surveyed
Apache-Sitgreaves	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	

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 Service and varies by National Forest.

The Pot Fire Timber Salvage Project 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).

Habitat 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 mature stand component contains 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).

This 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 between 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 Service 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 170 timber sales and other projects in Arizona and New Mexico since August 1993. These projects have resulted in the anticipated incidental take of 54 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.

### Status of the Species in the Action Area

MSO surveys were conducted in 1996 prior to the Pot Wildfire in connection with inventory of the Maxwell and Iron Mine 20K management units. MSO inventory surveys were conducted adjacent to the Aztec, Pecks Point, and Willow Valley PACs, and each of these three PACs were informally monitored to determine MSO presence. MSO pairs were located in the Aztec and Peaks Point PACs and a single male MSO was located in the Willow Valley PAC. Nesting status was not determined. In accordance with the MSO Recovery Plan recommendations for salvage operations in PACs, post-fire monitoring was conducted on the Aztec, Pecks Point, and Willow Valley PACs. MSO pairs were confirmed in the Aztec (July 3, and July 31, 1996), and Pecks Point (July 16, 1996) PACs. A male MSO was confirmed (July 16, 1996) in the Willow Valley PAC. Nesting status remained unknown for these three PACs in 1996. Given the small portion of the Tramway PAC affect by the fire (28 acres) and the distance of the 1993 roost site from the fire, the Forest Service did not monitor this PAC in 1996.

Some monitoring of the four PACs has occurred in 1997 to date. A day roost site and a pair of MSO were located in the Aztec PAC on April 21 and April 25, 1997. Monitoring at the

Peck's Point PAC found a single male MSO on April 20, 1997, and again on April 30, 1997, and May 2, 1997. A male MSO was heard in the Willow Valley PAC on April 21, 1997, and April 30, 1997. A male MSO was located in the Tramway PAC on April 24, 1997.

The present condition of the areas proposed for salvage in cutting units 7, 8, and 9 do not provide MSO nesting/roosting habitat, but may provide foraging habitat, particularly where prey species habitat occurs proximate to the PACs. In an unpublished report, Stacey and Hodgson found MSO using burned areas for both roosting and foraging. However, given the higher quality and quantity of habitat within the Willow Valley drainage, the need to seek roosting and/or foraging habitat outside of PACs may be low.

## EFFECTS OF THE ACTION

The Service's original concurrence for the Pot Fire Timber Salvage Project (October 11, 1996) was based in part on the Forest Service's commitment to completing actions outside the MSO breeding season (see August 20, 1996, BA&E). The Service's concurrence on the modified action of conducting harvest activities during the MSO breeding season in all units except 4, 7, 8, and 9, was again based on the Forest Service's commitment to determine the status of MSO located in the four PACs located adjacent to these cutting units before completing the actions during the MSO breeding season (see the March 21, 1997, request for re-initiation letter). On April 25, 1997, the Service agreed that the conditions of March 28, 1997, concurrence letter were met for cutting unit 4, located adjacent to the Aztec PAC. The Forest Service has again changed their project description and proposes to allow the harvest of cutting units 7, 8, and 9 during the MSO breeding season. The Service's March 28, 1997, concurrence based on the Forest Service's request for re-initiation explains that due to the unknown effects of the Pot Wildfire on the condition of nesting and prey habitat within the affected PACs, the Service believes the MSO may relocate nest/roost locations to areas other than those previously located. The Service believes this may be particularly true in those PACs most severely impacted by the wildfire. In addition, information on the status and locations of the MSO in the effected PACs has been scarce to non-existent since 1994.

The Service believes that MSO may be disturbed due to noise and movement proximate to the nest site during the breeding season. Specifically, the Service believes actions such as tree removal and use of heavy equipment within 0.25 miles of the nest site during the breeding season may have an effect on the ability of MSO to forage, nest and fledge young. The history of the 0.25 mile restriction in the Southwest goes back to 1992 where it was included in the draft conservation strategy being worked on by the Service and Forest Service for the MSO. The Forest Service's Interim Directive Number 2 recommended that no management activities occur at any time in the 450-acre core areas of the management territories. The Service's biological opinions for the MSO have stated that incidental take is likely if proposed actions are located in such proximity to MSO nest sites and/or core areas that disturbance of the birds is probable. This was specified as treatments that occur during the breeding season within 0.25 miles of a nest tree, or, if the nest site is unknown, within 0.25 miles of a core, or within

0.25 miles of unsurveyed suitable habitat (Fish and Wildlife Service, August 23, 1993, biological opinion, to present). Although research, primarily on the northern spotted owl to date, suggests that most individuals may be relatively tolerant of disturbance, there are not quantitative data to evaluate the impacts of disturbance due to various forest management activities (Fish and Wildlife Service biological opinion for the Rogue Valley and South Coast of Oregon, October 18, 1996). The Service's July 1, 1996, internal policy on conducting section 7 consultation on the MSO states that the current policy of restricting activities that have the potential to disturb nesting owls should continue. In most situations, the recommendation in the Recovery Plan to conduct no disturbing actions within the PAC during the breeding season will be adequate, but site-specific situations may warrant a breeding season restriction outside of the PAC based on the location of a known or potential nest/roost site, the relation of this to the PAC boundary, and the reproductive status of birds the year of the action. Therefore, the Service believes that there may be circumstances where actions outside of PACs conducted during the breeding season may adversely affect the MSO.

The Service provides the following analysis of effects for each of the three PACs located proximate to cutting units 7, 8, and 9:

#### PECK'S POINT PAC

Monitoring to date has not produced reliable locations for MSO in the Peck's Point PAC (040442). This PAC is located immediately adjacent to cutting unit 7 and approximately 0.25 miles from cutting units 8 and 9. MSO inventory surveys conducted in 1996 prior to the Pot Wildfire located a MSO pair in the Peck's Point PAC but nesting status and location was not determined. The Peck's Point pair was relocated on July 16, 1996 after the Wildfire, but no location or nesting status information was reported. The wildfire affected 70 percent of this PAC, and destroyed approximately 50 percent of the trees (August 20, 1996, BA&E). Monitoring of this PAC in 1997 to date located a single male MSO on April 20, 1997, and again on April 30, 1997, and May 2, 1997. Inventory efforts in 1997 have been unable to locate or confirm the pair location, but the locations of the male MSO in 1997 are in the same general vicinity as the pair location in 1994 (the only year the pair was located nesting). These locations are immediately below cutting unit 7 of the Pot Fire Timber Salvage Project.

Based on: 1) the above past information and lack of current information on the status or location of MSO in the Peck's Point PAC; 2) the fact that 70 percent of this PAC was affected by the Pot Wildfire and 50 percent of the trees killed, thereby potentially affecting the previously used nest site as well as the habitat quality of the PAC, and; 3) the immediate adjacency of cutting unit 7 to the PAC and to the single male located this year, the Service believes the harvesting of this cutting unit during the MSO breeding season may adversely affect the ability of MSO to successfully forage, nest, and fledge young due to disturbance.

The Service believes that the harvesting of cutting units 8 and 9, while located at almost exactly 0.25 miles from the edge of the Peck's Point PAC, will not result in disturbance to the PAC due to the combination of distance from the PAC and the topographic relief of the canyon in which the PAC is located.

#### WILLOW VALLEY PAC

A portion of the Willow Valley PAC (040407) is located immediately adjacent to cutting units 7 and 9, and within 0.25 miles of cutting unit 8. The portion of the PAC located adjacent to cutting units 7 and 9 is a relatively shallow extension off the main Willow Canyon portion of the PAC. Past locations of MSO in this PAC were in the main portion of Willow Canyon, located over 0.50 miles from the nearest cutting unit 9. Recent monitoring information indicates that the MSO may be located in the area historically occupied. The Willow Valley PAC had only minor effects due to the wildfire (8 percent) and the MSO are expected to continue use of the previously occupied area. Based on the above information, the Service believes that harvest actions in cutting units 7, 8, and 9, may result in adverse effects to MSO, but these effects will not effect the ability of MSO to breed in this PAC.

#### TRAMWAY PAC

A portion of the Tramway PAC (040434) is located immediately adjacent to cutting unit 9. This portion of the PAC a narrow arm located outside the main canyon which has been occupied by the MSO to date. Past monitoring information indicates that the MSO have used an area over one mile from cutting unit 9. The Tramway PAC had only minor effects due to the wildfire (4 percent) and the MSO are expected to continue use of the previously occupied area. Based on the above information, the Service believes that harvest actions in cutting units 7, 8, and 9, may result in adverse effects to MSO, but these effects will not effect the ability of MSO to breed in this PAC.

#### 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, potential oil and gas leasing, 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 Service's biological opinion that the harvest of cutting units 7, 8, and 9 of the Pot Fire Timber Salvage Project during the MSO breeding season, 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 Service to the Forest Service from August 23, 1993, to present). 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 Service has identified conditions of probable take for the MSO associated with the Peck's Point PAC (040442). Based on the best available information concerning the MSO, habitat needs of this species, the project description, and information furnished by the Forest Service, take is considered likely for the MSO as a result of the following:

- 1) Harvest of cutting unit 7 will occur immediately adjacent to the Peck's Point PAC (040442) and proximate to the potential nest site during the breeding season. This PAC was significantly impacted by the Pot Wildfire in 1996, and the nesting status and location information has not yet been determined in 1997.
- 2) The disturbance caused by the harvest of cutting unit 7 during the MSO breeding season may prevent successful reproduction by MSO in this PAC if reproduction is attempted.

#### AMOUNT OR EXTENT OF TAKE

The Service anticipates that the harvesting of cutting unit 7 of the Pot Fire Timber Salvage Project during the breeding season may result in the incidental take of two MSO connected with the Peck's Point PAC (040442) in the form of harassment due to disruption of normal behavior.

#### EFFECT OF THE TAKE

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

#### REASONABLE AND PRUDENT MEASURES

Reasonable and prudent measures and their implementing terms and conditions are designed to minimize incidental take that might otherwise result from the Pot Fire Timber Salvage Project. The Service discussed a draft reasonable and prudent measure with the Forest Service on May 2, 1996. The Forest Service expressed their concern that implementation of a draft reasonable and prudent measure which stated that harvest of cutting unit 7 should not occur during the MSO breeding season, would significantly effect the timing of the project, and would result in high costs to the Forest Service if the contractor were to enter the claims process. The Forest Service has indicated that the timely completion of the harvest of these three cutting units is

important because fire-killed trees quickly lose their commercial value. Given the above, the Service has modified this biological opinion to reflect these concerns for the timing of the action. Specifically, no reasonable and prudent measure or implementing term and condition has been included to minimize incidental take in this particular consultation due to the fact that the timing of the action is critical. The Service believes that this situation is unique given that the project is salvaging fire-killed trees which have already been sold and for which the value is declining rapidly. Situations such as these where appropriate surveys could not be completed in the time available, are to be considered the exception and not the rule. Therefore, in this biological opinion, incidental take has been determined with only a reasonable and prudent measure to monitor the Peck's Point PAC.

The Service believes the following reasonable and prudent measure is necessary and appropriate in order to determine that the amount of allowable take has not been exceeded.

- 1) The Forest Service shall continue to monitor the Peck's Point PAC in 1997 in order to determine that the amount of allowable take has not been exceeded.

#### 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.

- 1.1 The Forest Service shall continue to monitor the Peck's Point PAC in 1997 to determine occupancy and reproductive status to the best of your ability.
- 1.2 The results of the above monitoring will be reported to the Arizona Ecological Services office within the 1997 calendar year.

If, during the course of the action, the 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 Service the need for possible modification of the reasonable and prudent measures.

Notice: While the incidental take statement provided in this consultation satisfies the requirements of the Endangered Species Act, as amended, it does not constitute an exemption from the prohibitions of take of listed migratory birds under the more restrictive provisions of the Migratory Bird Treaty Act.

### **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 a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. Harvest cutting unit 7 outside the MSO breeding season (March 1 - August 31).
2. Continue to monitor the Willow Valley and Tramway PACs in 1997 to determine occupancy and reproductive status. Report the results of such monitoring to the Service.

### **REINITIATION - CLOSING STATEMENT**

This concludes formal consultation on the action of harvesting cutting units 7, 8, and 9, of the Pot Fire Timber Salvage Project during the MSO breeding season. 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.

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 2-21-97-F-012, in future correspondence concerning this project.

Sincerely,

/s/ Sam F. Spiller  
Field Supervisor

Mr. Steven Calish

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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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