

BIOLOGICAL OPINION SUMMARY  
Curry Road Easement  
2-21-96-F-276

**Date of opinion:** July 9, 1997

**Action agency:** Prescott National Forest, Bradshaw Ranger District

**Project:** Curry Road Easement. The Forest Service is granting an easement across National Forest System (NFS) land to access 20 acres of private land. The only available access to the private parcel is an existing two-track road off the Walker Road (County Road 57) across NFS land. The selected alternative would grant an easement to widen the existing two-track road for its entire length of 1/3 mile and build an additional 200 feet of road. Road construction will occur outside the Mexican spotted owl (MSO) breeding season, and a gate will be installed at the junction with the Walker Road. The interrelated and interdependent actions considered in this opinion include the widening of the existing two-track road, the harvest of trees on the private parcel, the building of homes and roads, and noise disturbance and increased access to NFS lands caused by the granting of this easement.

**Location:** Yavapai County, Arizona.

**Listed species affected:** The Mexican spotted owl (*Strix occidentalis lucida*). The private parcel is located within two MSO protected activity centers (PACs). The road easement is located within one MSO PAC. Critical habitat for the MSO has been enjoined; therefore, no conferencing or consultation is currently required for critical habitat for this species.

**Biological opinion:** Non-jeopardy

**Incidental take statement:**

Level of take anticipated: Anticipated take of two owls due to harm and harassment due to habitat modification and disruption of normal reproductive behavior and/or mortality due to vehicle collision. This harm and harassment is in the form of disturbance caused by the improvement and subsequent use of the access road on NFS land, and the effects of the anticipated actions of the private landowner(s) on the 20-acre private inholding. Exceeding this level may require reinitiation of formal consultation.

Reasonable and prudent measures: The biological opinion presents three measures for assisting in the reduction of incidental take: 1) The Forest Service shall minimize adverse affects of the access road located on NFS land; 2) The Forest Service shall survey the Snow Drift PAC to determine occupancy and to assist in the implementation of reasonable and prudent measure 3; and 3) The Forest Service shall inform the landowner(s) of the requirements of section 9 of the ESA, the potential effects to the MSO of the actions on this property, and how the landowner(s)

can minimize these adverse effects. Implementation of these measures through the terms and conditions is mandatory.

Terms and conditions: Nine mandatory terms and conditions are included to implement the reasonable and prudent measures.

Conservation recommendations: Five conservation recommendations are given. These include the actions of developing a MSO conservation strategy, monitoring the recreation use of NFS lands adjacent to the private parcel, developing an education program for the landowners, actively minimizing disturbance to the two affected PACs and the 8 other PACs on the Prescott National Forest, and providing the Service with detailed information on the condition of MSO habitat on the Prescott National Forest. Implementation of conservation recommendations is discretionary.

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AESO/SE  
2-21-96-F-276

July 9, 1997

Mr. Michael R. King  
Forest Supervisor  
Prescott National Forest  
344 South Cortez Street  
Prescott, Arizona 86303

Dear Mr. King:

The U.S. Fish and Wildlife Service (Service) has reviewed the project proposal for the Curry Road Easement Project located in Yavapai County. Your April 18, 1996, request for formal consultation was received on April 30, 1996. This document represents the Service's biological opinion on the effects of that 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.).

The Forest Service made the determination that the Federal action of granting an easement on National Forest System (NFS) land to a parcel of private land "may effect, but is not likely to adversely affect" the MSO and its critical habitat, but that the connected actions on the private parcel including homesite development, "may effect, and is likely to adversely affect" the MSO. The private parcel is located in two MSO protected activity centers (PACs), and the road easement is located in one PAC on NFS land.

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

This biological opinion is based on information provided in the biological assessment and evaluation dated April 12, 1996, the environmental assessment, a site visit conducted on June 24, 1995, telephone conversations with Cary Thompson, wildlife biologist on the Bradshaw Ranger District, on August 7 and August 13-16, 1996, the Bradshaw Ranger District's May 22, 1997, letter in response to the September 24, 1996, Draft Biological Opinion, 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 on this 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 Curry Road Easement proposal is not likely to jeopardize the continued existence of the MSO.

## CONSULTATION HISTORY

The Service was first contacted regarding the proposed Curry Road Easement project in a telephone conversation between Michele James of the Service and Noel Fletcher of the Bradshaw Ranger District on May 22, 1995. The Service and Forest Service then conducted a site visit on June 24, 1995, accompanied by the private landowner, Bob Curry. Formal section 7 consultation was requested by the Forest Service on April 18, 1996, and received by the Service on April 30, 1996. The Service notified the Forest Service on May 21, 1996, of the receipt of the request for consultation. The Service discussed the status of MSO in the Snow Drift and Mount Pine Acres PACs with Cary Thompson, wildlife biologist, Bradshaw Ranger District, on August 7, and August 13-16, 1996. These conversations consisted of receiving updated status information for the Snow Drift PAC on a daily basis. The Service sent a facsimile of the draft biological opinion proposed action description to Cary Thompson on August 16, 1996, for review. One minor change was indicated to the project description in a facsimile received by the Service on August 16, 1996. A courtesy copy of the biological opinion draft reasonable and prudent measures were sent via facsimile to Cary Thompson and Noel Fletcher of the Bradshaw Ranger District on September 3, 1996. On September 19, 1996, the Prescott Forest Supervisor notified Sam Spiller of the Service that the Forest wished to review the entire draft biological opinion. The draft biological opinion was sent to the Forest Supervisor on September 24, 1996, at which time the "consultation clock" was stopped pending Forest Service comment on the draft biological opinion.

On October 21, 1996, the Service received a facsimile of a letter addressed to Noel Fletcher from Russell Duncan, Southwestern Field Biologists, Tucson, Arizona. This letter indicated that the Forest Service had discussed with Mr. Duncan the content of a portion of the draft Curry biological opinion regarding the possibility of MSO being hit by vehicles. Electronic mail messages between Michele James of the Service and Noel Fletcher of the Forest Service in October and November 1996, indicated that the Forest Service wished to discuss the determination that incidental take of MSO may occur due to the access road on Federal land. These messages also indicated that the draft biological opinion had been sent to the Forest Service Regional Office and that the Forest was waiting for their response. The Service received a Policy Statement for Section 7 Consultation on Forest Service Road Permits and Activities on Private Inholdings on December 2, 1996, and a Policy Revision of the same policy on February 3, 1997.

The draft biological opinion was discussed on February 20, 1997, during a coordination meeting between the Service and the Prescott National Forest. At this time, the Forest Service indicated that a written response to the draft biological opinion would be forthcoming. On May 22, 1997, the

Service received a written response to the September 24, 1996, draft biological opinion. In this letter, the Forest Service indicated agreement with draft reasonable and prudent measure 1 and its implementing term and condition to ensure that all maintenance of the access road on National Forest System (NFS) lands will occur outside the MSO breeding season. The Forest Service indicated disagreement with draft term and condition 2.1 and 2.2 which requires monitoring of the Snow Drift PAC to determine occupancy and reproductive status. The Forest Service stated that they believe that occupancy monitoring would be inconclusive in monitoring for take and would not be of value given that the access road is the only portion of the project that applies to the Federal part of the action. The Service agrees that occupancy monitoring for take would be inconclusive; however, "cause and effect" monitoring is not the purpose of draft term and condition 2.1. Draft term and condition 2.1 required surveys for occupancy and reproductive status of the Snow Drift PAC which will assist in minimizing disturbance to MSO from private actions, and will assist in the implementation of other reasonable and prudent measures. In addition, through provision of the Act, the Federal action agency shares the responsibility for interrelated and interdependent effects of the Federal action. The May 22, 1997, response to the draft biological opinion also indicated that the Forest Service agreed with term and condition 3.1 of the draft biological opinion to provide the private land owners with a packet of information informing them of their responsibilities under the Endangered Species Act. The Forest Service provided no comment on draft term and condition 3.2 which required the Forest Service to inform the landowner of one protective measure that would minimize direct and indirect mortalities and disturbance to MSO. The Service has attempted to incorporate the Forest Service's concerns in this final biological opinion by clarifying the terms and conditions. In addition, the Service has brought the reasonable and prudent measures of this biological opinion into compliance with the Service's February 3, 1997, Policy Statement for Section 7 Consultation on Forest Service Road Permits and Activities on Private Inholdings.

## **BIOLOGICAL OPINION**

### **DESCRIPTION OF PROPOSED ACTION**

The action that is the subject of this biological opinion is the granting of an easement across National Forest System (NFS) land to access 20 acres of private land, and the subsequent development of homesites on the private land. The private parcel is located at T. 12 & ½ N.; R. 1 W. Sections 30 and 31. The only available ground access to the private parcel is an existing two-track road off of the Walker Road (County Road 57) across NFS land. There is no adjoining private land on which to seek access. The private parcel is surrounded by NFS land.

The selected alternative 3 would provide appropriate access to private property in accordance with the Alaska National Interest Lands Conservation Act of 1980. Alternative 3 would grant an easement to widen the existing two-track road, for its entire length of 1/3 mile, and build an additional 200 feet onto this road. The existing two-track road is currently 8-10 feet wide. The proposal would widen the road an additional 2-3 feet on either side, for a total road width of 14 feet. The easement would be 20 feet wide. The Forest Service has indicated that road construction would

require the removal of 46 trees < 9 inches diameter at breast height (dbh), 12 trees > 9 inches dbh, which includes one 19 inch dbh tree. The access road would be constructed to Forest Service standards with a timing restriction on this action to mitigate impacts to the MSO. Additionally, a gate would be installed at the junction with the Walker Road. Under a Forest Service special use permit, the road to the private parcel would only be open to those persons accessing the private parcel.

The vegetation in the NFS easement area consists of an overstory of late seral stage ponderosa pine and an understory of early seral stage fir. The topography is gently sloped. The easement is located in the Snow Drift PAC (090311). The Forest Service estimates that the stand in which the easement lies meets "target/threshold habitat" conditions as defined in the Final MSO Recovery Plan (USDI 1995), but that the area along the easement is not nest/roost habitat, but it is good foraging habitat.

The 20-acre private parcel is currently a dense multi-storied mid to late seral stage mixed conifer stand with ponderosa pine, Douglas-fir, and Gambel oak, and with slopes of 10-20%. The biological assessment and evaluation determined that it is excellent MSO nesting and roosting habitat. The private parcel is an inholding within both the Snow Drift PAC (090311) and the Mount Pine Acres PAC (090308). The landowner indicated in 1995 that he plans to build 2 to 4 houses on the private parcel. Only trees located in areas of house construction and roadways would be removed. Construction actions may take up to 5 years to complete (pers. comm. Bob Curry).

#### STATUS OF THE MEXICAN SPOTTED OWL (range-wide)

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 (FWS, 58 FR 14248 - 14271; March 16, 1993), in previous biological opinions prepared for Region 3 of the U.S. Forest Service on August 23, 1993, October 8, 1993, May 14, 1996, and July 12, 1996, 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 within this range. This is especially true in Mexico where much of the MSO's range has not been surveyed. Informational gaps also appear for the species' distribution within its United States Range. It is apparent that the MSO occupies a fragmented distribution throughout its United States range corresponding to the availability of forested mountains and canyons, and in some cases, rocky canyon lands. 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 isolated mountain systems and canyons. The primary administrator of lands supporting MSO in the United States is the 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 Recovery Plan. Although a reliable estimate of the number of MSO throughout its entire range is currently not available, 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 (55.9%), followed by the Basin and Range-East (16.0%), Basin and Range -West (13.6%), Colorado Plateau (8.2%), Southern Rocky Mountain-New Mexico (4.5%), and Southern Rocky mountain-Colorado (1.8%) RUs. 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 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).

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 Forest.

**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 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	

#### STATUS OF THE MEXICAN SPOTTED OWL (within the action area)

##### Basin and Range West Recovery Unit

This RU encompasses a small portion of New Mexico and the majority of southern Arizona. The northern border of this RU is defined by the slopes of the Mogollon Rim. The RU is characterized by numerous mountain ranges which arise abruptly from broad plain-like valleys and basins. MSO occupy a wide range of habitat types within this RU. The majority of owls occur in isolated mountain ranges where they inhabit encinal oak woodlands, mixed conifer and pine-oak forests, and rocky canyons (USDI 1995). Recreation dominates land use within this RU. In addition, urban and rural development and mining modify portions of this units' landscape. Timber harvest occurs mainly on the Prescott National Forest and San Carlos Apache Indian Reservation. Of the 869 total MTs on Forest Service land throughout the Region, 150 occur in this RU. Within this RU the MSO occupies primarily Forest Service lands, and the majority occur within the Coronado National Forest.

This RU ranks as the second largest RU in the United States. Though it probably does not support as large a MSO population as the Upper Gila Mountains RU, the known population ranks third highest in the United States despite limited survey efforts in many areas. Therefore, the Recovery Plan regards this RU as an important unit for the recovery of the MSO. According to the Recovery Plan, the potential for catastrophic wildfire is the primary threat to MSO in this RU.

Much of the MSO nest/roost habitat on the Prescott National Forest consists of forested, steep sloped canyons and drainages. The habitat occurs in disjunct patches. A considerable amount of the habitat on the Prescott National Forest contain private inholdings, and residential and localized mining activity occurs in many of these areas. The habitat located in the vicinity of the project area includes the habitat around Mount Union and Sierra Prieta, and lies adjacent to the city of Prescott. This portion of the Prescott National Forest contains larger habitat patch sizes than in other areas of the Forest and may provide more available habitat for nesting MSO. According to the biological assessment and evaluation for the project, the habitat in the vicinity of the project area contains 9 of the 10 PACs on the Prescott National Forest. Much of the accessible forest has been extensively harvested historically. The nest/roost forest habitat on steeper slopes is generally in good condition.

#### 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 Prescott National Forest, past and present Federal State, private, and other human activities that affect habitat within this RU include fuelwood gathering activities, development of recreation sites, timber sales, road construction and maintenance activities, land exchanges, small mining claims, and private property housing development projects throughout the area.

The Forest Service has formally consulted on 185 timber sales and other projects in Arizona and New Mexico since August 1993. These projects have resulted in the anticipated incidental take of 63 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 until further consultation.

#### EFFECTS OF THE ACTION

Because this project involves a permitting action that is connected to activities to be conducted on private land, the Service must consider the indirect effects, as well as the effects of interdependent

and interrelated actions to the MSO from permitting this access. Indirect effects are those that are caused by, or result from, the proposed action, and are later in time, but are reasonably certain to occur. Interrelated actions are actions that are part of a larger action, and are dependent on the larger action for their justification. Interdependent actions are actions that have no independent utility apart from the action under consideration.

The interrelated and/or interdependent actions of granting an easement to the private parcel considered in this Biological Opinion are the widening of the two-track road, the extension of that road, the maintenance of that road over time, the harvest of trees on the private parcel for the purpose of building homes and roads, and the effects of human habitation including noise disturbance and increased access to the adjacent NFS lands. Since the private parcel cannot be accessed without an easement across NFS lands, homesite development would not occur without the issuance of this easement.

The Recovery Plan states that no new road construction should occur within MSO PACs and recommends that no trees over 9 inches dbh be removed in PACs. Both of these will occur in the granting of the Curry easement. The Service believes the permitting of access to the private parcel through the granting of an easement on the existing two-track road located in the Snow Drift PAC (090311) may adversely affect the MSO. The Service believes that the mitigating actions proposed by the Forest Service, namely completing construction activity outside of the MSO breeding season, the utilization of an existing road, thereby minimizing tree removal, and the installation of a gate at the junction of the access road and Walker Road will assist in reducing the immediate impacts of the access road to the Snow Drift PAC. Long-term impacts of the road remain, however, in that tree removal will widen the existing road within the Snow Drift PAC by 4-6 feet and will lengthen the road by 200 feet. In addition, maintenance of this road will continue for as long as access to the private parcel is desired. Vehicular traffic may impact the ability of MSO in this PAC to forage successfully, and/or to successfully nest in proximity to the road. This is of particular concern given that numerous MSO locations in 1991 and 1992 are documented immediately on and adjacent to the existing two-track road.

In addition, spotted owls have been known to be hit by vehicles (USDI 1995; Gutierrez *et. al*, 1995; USFWS 1992; USDA 1992; pers. comm. Russell Duncan, Southwestern Field Biologists). Owls may be hit by vehicles for a variety of reasons including such factors as the speed the vehicle is travelling, the number of vehicles, the time of day, and the use of the area by owls. Vehicle headlights may also play a role if they blind the owl. MSO may be attracted to the opening in the forest created by the road because potential prey may be more visible in that area. The Service believes the risk of MSO being hit by vehicles using the access road is a possibility because of the roads location in the Snow Drift PAC, and because the road will be used to access homes, therefore use during the periods the MSO are most active (sunset, sunrise, and nighttime) is likely.

The Service is also concerned with the potential impacts to MSO and its habitat as a result of the proposed development on the private parcel. The proposed action of the Forest Service granting an easement to allow access to the private parcel is anticipated to result in impacts to approximately 20

acres of nest/roost habitat. It is not known if this habitat meets target/threshold conditions as defined by the Recovery Plan. The private parcel is located within two MSO PACs. The Mount Pine Acres MT (090308) was established in 1991, and both male and female MSO were documented multiple times adjacent to the private parcel in 1991 and 1992. Surveys since 1991 also indicated a cluster of MSO activity 1/2 mile to the south of the private parcel, again with multiple nighttime locations of male and female MSO and a day roost. Given the apparent clustering of sightings into two distinct areas, when converting from MTs to PACs in 1995, the Forest Service divided the Mount Pine MT into two PACs. The owl locations to the north of the private parcel are included in the Snow Drift PAC (090311), and the owl locations to the south are located in the Mount Pine Acres PAC (090308). Monitoring in 1994, 1995, and 1996 located a non-nesting pair of MSO at a day roost approximately one mile south of the private parcel, in the Mount Pine Acres PAC.

The documented MSO locations from 1991 and 1992 in what is now the Snow Drift PAC are immediately adjacent to the private parcel. No monitoring occurred in the Snow Drift PAC between 1993 and 1995. Monitoring was conducted in the Snow Drift PAC on August 13, 14, and 16, 1996 (pers. comm. Cary Thompson, Bradshaw Ranger District). On August 13, 1996, simultaneous monitoring located both a pair of MSO in the Mount Pine Acres PAC and in the Snow Drift PAC, thus confirming that a pair of MSO occupy each PAC. The pair location in the Mount Pine Acres PAC in 1996 was near previous day roost locations, just over 1/2 mile from the private parcel. In the Snow Drift PAC, both a male and female were located less than 1/4 mile apart, in an area approximately 1/2 mile from the private parcel in 1996. Follow-up day-time monitoring of the Snow Drift PAC on August 14, 1996, failed to locate any MSO. Early morning monitoring of this PAC again on August 16, 1996, located a male MSO in a drainage adjacent to the August 13, 1996, locations, but failed to find a day roost when the sun came up.

It remains unclear where the nest/roost site for the Snow Drift PAC is located. Given the above information, the Service believes it is possible that the area immediately adjacent to the private parcel, or the private parcel itself, may contain a nest/roost site. The removal of trees for the proposed housing development could directly impact the owl if nest and/or roost trees are cut. Furthermore, noise disturbance during the breeding season caused by construction activity of up to 5 years duration, could affect breeding on adjacent NFS lands through either disrupting breeding altogether or displacing a nesting female, and thus cause mortality to eggs or chicks. The most significant indirect effects are expected to result from the opening of the overstory due to the placement of houses and accompanying roads, and the effects of long-term human habitation. Owls (particularly juveniles) that have been displaced or forage and/or disperse through the open overstory may be more vulnerable to predation; therefore, there may be a greater loss of owls over time.

Because MSO activity in the Mount Pine Acres PAC has been concentrated since 1991 in an area located greater than 1/2 mile from the private parcel, the Service believes the impacts of the proposed development will not adversely affect the ability of this PAC to function. The Service's concerns focus on the potential adverse effects to MSO in the Snow Drift PAC. The effects of development and human habitation within this PAC include direct effects to a nest potentially located on the private parcel, and long-term disturbance in adjacent NFS lands in an area larger than

the 20 acre parcel. Disturbance factors include vehicles, pets, music and maintenance equipment. These factors have the potential to render adjacent NFS lands unsuitable for nesting/roosting. In addition, the Service is concerned with the increased potential for recreational use of adjacent NFS land, and the increased potential for wildfire caused by the housing development having an adverse effect on the two adjacent PACs. This is of particular concern given that wildfire is considered the greatest threat to the MSO in this RU.

### Cumulative Effects

Cumulative effects are those effects of future non-Federal (State, local government, or private) activities on endangered or threatened species or critical habitat that are reasonably certain to occur in the foreseeable future. Future Federal actions are subject to the consultation requirements established in section 7, and, therefore, are not considered cumulative in the proposed action. In past Biological Opinions, it has been stated that, "Because of the predominant occurrence of the owls on Federal lands, and because of the role of the respective Federal agencies in administering the habitat of the owl, actions to be implemented in the future by non-Federal entities on non-Federal lands are considered a minor impact." However, there has been a recent increase of harvest activities and development on non-Federal lands. Much of the non-Federal lands being harvested are adjacent to or within National Forests (inholdings). 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, fuelwood gathering, logging, land exchanges, and other associated actions. These activities reduce the quality and quantity of owl nesting, roosting and foraging habitat and cause disturbance to breeding owls, and would contribute as cumulative effects to the proposed action.

Of particular concern on the Prescott National Forest is the development of private inholdings in mining claim areas. Many of these developments do not have a Federal connection in that access does not require an easement across NFS land. Many of these inholdings are located within PACs and nest/roost habitat. The current trend in the development of these private inholding is increasing as the Prescott area grows in size. These actions will continue to impact the ability of PACs to function and may already be adversely effecting MSO at the local level. Given the potential adverse effects of cumulative non-Federal actions in nest/roost habitat over time, the Service is concerned about the viability of many of the PACs on the Prescott National Forest in the future.

### 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 permitting of the Curry Road Easement is not likely to jeopardize the continued existence of the MSO and will not destroy or lead to adverse modification of critical habitat. The proposed road easement will adversely affect the Snow Drift PAC, and the proposed housing development will

adversely affect nest/roost habitat in an inholding within two PACs, and the quality of protected habitat immediately adjacent to the private parcel in the Snow Drift PAC.

### **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 duty 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 project now 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 when habitat no longer meets the owl's needs.

In past Biological Opinions, the management territory was used to quantify incidental take thresholds (see Biological Opinions provided by the Service to the Forest Service from August 23, 1993, to date). The current section 7 consultation policy states that incidental take can only be supported 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 Snow Drift PAC within which the majority of the private parcel and related actions are located. Based on the best available information concerning the MSO, its habitat needs, the project description, and information furnished by the Prescott National Forest, take is considered likely for the MSO as a result of the following:

- 1) Tree removal caused by widening the road and long-term use of the access road in the Snow Drift PAC located on NFS land.
- 2) Tree removal and development within potentially occupied nest/roost habitat, and in an inholding located within the Snow Drift PAC in which a MSO nest/roost has not been located.
- 3) Tree removal and development of the private parcel during the MSO breeding season.
- 4) The immediate and long-term impacts of the proposed housing development on the private parcel will result in loss of functional NFS nesting and roosting habitat for the MSO in the Snow Drift PAC. This may cause permanent vacancy of the PAC or adversely effect the ability of MSO using the Snow Drift PAC to successfully breed.

#### AMOUNT OR EXTENT OF TAKE

The Service anticipates that the proposed Curry Road Easement may result in incidental take of two MSOs associated with the Snow Drift PAC in the form of harm and harassment due to habitat modification and disruption of normal reproductive behavior and/or mortality due to vehicle collision. This harm and harassment is in the form of disturbance caused by the improvement and subsequent use of the access road on NFS land, and the effects of the anticipated actions of the private landowner(s) on the 20-acre private inholding due to the granting of this easement as permitted by the Forest Service. Habitat modification due to road improvement within the NFS easement area is limited to widening the 1/3 mile long road 2-3 feet on either side, and to building an additional 200 feet of road.

If, during the course of the action, the amount or extent of the incidental take anticipated is exceeded, the Forest Service must reinitiate consultation with the Service immediately to avoid violation of section 9, and/or the landowner must obtain a section 10(a)(1) permit.

#### 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 species or destruction or adverse modification of critical habitat.

## REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize the incidental take of owls anticipated for the Curry Road Easement and associated home development on the private parcel.

- 1) The Forest Service shall minimize adverse affects of the access road located on NFS land.
- 2) The Forest Service shall survey the Snow Drift PAC to determine occupancy and to assist in minimizing incidental take from actions on private land.
- 3) The Forest Service shall inform the landowner(s) of the requirements of section 9 of the Endangered Species Act, the potential effects to MSO of actions on his property, and how the landowner can minimize adverse effects to the MSO.

### 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 measures described above. These terms and conditions are nondiscretionary.

- 1.1 The Forest Service shall ensure that all maintenance of the access road on NFS lands will be completed outside the MSO breeding season (March 1 - August 31). If maintenance is to be completed by the landowner(s), this stipulation shall be included in the easement permit.
- 1.2. The Forest Service shall monitor the habitat removal associated with widening and lengthening the access road on NFS lands. If the monitoring results differ from that described in the project description, the Service will be contacted immediately.
- 1.3. The Forest Service shall ensure that the private landowner(s) or others with access to the private inholding, report any dead owls found along the road or within and adjacent to the private inholding to the Bradshaw Ranger District and/or the Arizona Ecological Services Field Office. The Forest Service will inform the Service of any such reports.
- 2.1 Survey the Snow Drift PAC to determine occupancy and reproductive status of MSO. Surveys will be conducted according to Forest Service survey protocol, with a minimum of 4 complete visits per year, if needed, for five years. Further survey needs and strategies to address the life of the construction period on the private parcel will be developed cooperatively by the FS and Service. Survey of the PAC will begin in 1997. Due to the location of past owl responses, surveys will include habitat adjacent to the private parcel. The objective of the monitoring effort is to find MSO nest/roost sites and to allow maximum latitude to the Forest Service in using appropriate survey protocols to

most efficiently accomplish this objective. Thus if a caller elicits an owl response after more than the protocol standard of 10 minutes, the caller should count this as a response, and follow-up appropriately. The Service believes survey of the PAC is necessary to assist in minimizing incidental take and to provide updated information to the private landowner(s) as stated term and conditions 3.1, 3.2, and 3.3.

- 2.2 The Forest Service shall submit an annual report to the Service of the results of such surveys of the Snow Drift PAC. This report will also describe how the terms and conditions of all reasonable and prudent measures in this incidental take statement are being implemented.
- 3.1 The Forest Service shall provide the private landowner(s) with information on the presence of MSO within the Snow Drift PAC and possible MSO use of the private land. Release of this information shall be consistent with reasonable and prudent alternative number 1 of the Service's June 13, 1996, biological opinion to the Forest Service Region 3 on the release of site-specific location information on the MSO (consultation number 2-22-95-F-520), as clarified in the Service's January 24, 1997, letter to the Forest Service.
- 3.2 The Forest Service shall advise the landowner(s) that harming or harassing owls without specific authorization is a violation of the Endangered Species Act. The landowner(s) shall be advised of the potential penalties up to a \$25,000 fine and 6 months in prison for taking a listed species without a permit.
- 3.3 The Forest Service shall inform the landowner(s) that if an owl nest or roost site is found within or directly adjacent to the private parcel, compliance with the following protective measures will minimize direct and indirect mortalities, and disturbance to MSO.
  - a) Conduct no disturbing activities including the use of heavy equipment (bulldozers, backhoes, etc.), chainsaws, and construction activities, during the MSO breeding season (March 1 - August 31).
- 3.4 The Forest Service shall provide the Service copies of all correspondence, meeting notes, or phone records involving the implementation of the terms and conditions of reasonable and prudent measure 3.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the proposed action. The Forest Service is only required to *inform* the landowner(s) of conservation actions that will remove potential impacts to the MSO. Because the actual implementation of these conservation actions on private land are not within the control of the Forest Service, the Service is permitting the Forest Service incidental take of no more than two MSO. If, during the course of the action, this level of incidental take is exceeded, such incidental take would represent new information

requiring review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the 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. The Forest Service should take an active role in developing a MSO conservation strategy for the Prescott National Forest to help minimize adverse impacts to the PACs located on the Forest.
2. The Forest Service should monitor the recreation use of NFS lands adjacent to the private parcel. If such monitoring indicates that social trails, etc. have developed in the Snow Drift or Mount Pine Acre PACs, the Forest Service should actively obliterate such trails and provide educational material to the landowners.
3. The Forest Service should actively pursue an information transfer program for the landowners of inholdings within MSO PACs and other sensitive habitats. This effort should include all such landowners on the Forest.
4. Given the awareness by both the Forest Service and the Service of the long-term negative consequences of the development of this private parcel on the Snow Drift

PAC and given that private land virtually surrounds both this PAC and the Mount Pine Acres PAC, the Forest Service should actively attempt to minimize disturbance to these PACs where it is possible on NFS lands. This can be accomplished by pursuing a program of road closures in these two PACs at a minimum, and in the 8 other PACs on the Forest as well.

5. Provide the Service with detailed information and maps depicting the condition of MSO habitat on the Prescott National Forest: acreage of habitat meeting threshold conditions,

and location and acreage of identified pine/oak and mixed conifer target/threshold habitat percentages as defined by the MSO Recovery Plan.

In order for the Service to be kept informed of actions that minimize or avoid adverse effects to the MSO and its critical habitat, the Service requests notification of the implementation of any conservation recommendations.

### REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the action outlined in the draft biological evaluation and draft environmental assessment. 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 2-21-96-F-276, in future correspondence concerning this project.

Sincerely,

/s/ Sam F. Spiller  
Field Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (GMA)  
District Ranger, Bradshaw Ranger District, Prescott, AZ  
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM

Director, Arizona Game and Fish Department, Phoenix, AZ

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