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August 14, 2007

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

RE: Arizona Public Service's CQ-12 Power Line Clearance Project

Dear Ms. Rasure:

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request for formal consultation was dated April 17, 2007, and received by us on April 19, 2007. This consultation concerns the possible effects of the Arizona Public Service (APS) CQ-12 (Flagstaff to Happy Jack) Power Line Clearance Project, Coconino County, Arizona, on the Mexican spotted owl (*Strix occidentalis lucida*) (MSO) and its critical habitat.

The original consultation also included a request for formal consultation on the bald eagle (*Haliaeetus leucocephalus*). The final rule to remove the bald eagle from the Federal List of Threatened and Endangered Species was published in the Federal Register on July 9, 2007, and took effect on August 8, 2007. Since the completion date for this biological opinion is post-August 8, 2007, there is no need to consult under section 7 of the Act, and effects to the bald eagle will not be considered in this document. However, our documentation of the Forest's implementation of minimization measures to reduce the likelihood of take is included in Appendix A.

This final biological opinion is based on information provided in the April 16, 2007, Biological Assessment and Evaluation (BAE), conversations and electronic correspondence with your staff, and other sources of information. Literature cited in this biological opinion is not a complete bibliography of all literature available on the bald eagle, MSO, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

## Consultation History

Details of the consultation history are summarized in Table 1.

**Table 1.** Summary of Consultation History

<i>Date</i>	<i>Event</i>
2003-2006	The Forest Service, Fish and Wildlife Service, and APS met many times in the office and in the field to discuss vegetation clearing activities along the CQ-12 power line.
August 2006	We reviewed and provided comments on the draft BAE.
February 2007	We reviewed and provided comments on the draft BAE.
April 19, 2007	We received your request for formal consultation regarding potential adverse effects to the bald eagle and MSO from the proposed action. This consultation package, dated April 17, 2007, included the April 16, 2007 BAE and maps of the project area.
May 16, 2007	We acknowledged your request for formal consultation with a 30-day letter.
July 9, 2007	We published the final rule to remove the bald eagle from the Federal List of Threatened and Endangered Species in the Federal Register.

## BIOLOGICAL OPINION

### DESCRIPTION OF THE ACTION

For a complete description of the proposed action, please refer to the April 16, 2007, BAE.

The CQ-12 power line is a 12-kilovolt (kV) electric utility line that begins in Flagstaff and terminates to the south at the Happy Jack Ranger Station. This power line provides electricity to Mormon Lake, Kinnikinick, the Happy Jack Ranger Station, and other communities along the line. The power line is located primarily on the Mormon Lake Ranger District of the Coconino National Forest, with a small section on the Mogollon Rim Ranger District. The proposed project would clear vegetation that is threatening the safe and reliable delivery of electricity along the power line. The utility corridor will be cleared according to national utility clearance standards (see the April 16, 2007 BAE, page 2 for more discussion regarding the national clearance standards). Per these standards, the vegetation clearance corridor (VCC) for this project will be 30 feet. The VCC differs from the Forest Service permitted right-of-way (ROW), as the VCC represents the area that needs to have vegetation removed in order to protect the power line. For this consultation, the VCC will be used to define the project area.

The project area includes approximately 34 miles of power line (including “taps” or distribution lines to communities) that runs from Flagstaff to the south end of Mormon Lake (“Mormon Lake” section) and one mile of line that runs from the Happy Jack Ranger Station north along Forest Highway (FH) 3 (“Happy Jack” section). APS is not proposing to remove any vegetation from the 11 miles of power line that lies between these two sections. To the east of the FH-3 and

Forest Road (FR) 90 junction, the “Kinnikinick” tap follows along FR 125 and FR 99117W for approximately 2.4 miles. This section is included in the analysis for the Mormon Lake section.

As stated above, APS is proposing to remove and/or prune vegetation under the 12-kV line within the 30-foot wide VCC. APS has not maintained this VCC, other than to remove hazard trees, since it was constructed. As a consequence the trees under the power line are dense and have grown tall enough to touch the power line in many areas. Up to seven vegetation-management crews, each consisting of two to three workers, will remove and prune vegetation on the power line beginning in August or September 2007. Work would be conducted between the hours of 0600 and 1730 and will be completed in July 2008. Crews would drive a bucket truck to the power line corridor where access is available. Where access is not available, crews will drive a 4x4 truck, all-terrain vehicle, or walk in from the nearest access point. Chainsaws, ropes, handsaws, and climbing equipment may be utilized to conduct the actual removal and pruning.

APS surveyed the line multiple times between 2003 and 2005 to determine the number of trees to be removed. Along the 34 miles (120 acres) of the Mormon Lake power line section, APS proposes to remove a total of 4,034 trees and prune 2,872 trees (see maps provided with April 16, 2007, BAE). Approximately 85% (3,382) of these are ponderosa pine, 7% (291) are Gambel oak, and 4% (178) are alligator juniper. Approximately 183 snags (5%) would also be removed. The total proposed tree removals and trees to be pruned are listed in Table 2 below by diameter-at-breast height (dbh). The total number of trees in this table includes a 4.75 mile area within this section for which the data were estimated, rather than individual tree counts. In addition to these trees, APS acknowledges the cutting of trees in the VCC may result in the felling or injury of other trees. While every effort would be made to avoid damaging surrounding trees, damage cannot always be avoided and additional trees may be felled as a result of the clearance project.

**Table 2.** Mormon Lake Section of CQ-12 Power Line: Total proposed tree removals and number of trees to be pruned by approximate size class (dbh).

	<b>DBH</b>	<b>Pine</b>	<b>Oak</b>	<b>Juniper</b>	<b>Total</b>
<b>Removals</b>	4-11 inches	2,410	266	170	2,846
	12-23 inches	957	25	8	990
	24 + inches	15	0	0	15
	Snags	-	-	-	183
	<b>Total Removals</b>	3,382	291	178	<b>4,034</b>
<b>Prunes</b>		2,710	142	20	<b>2,872</b>

The Happy Jack section in the south end of the project area is only one mile in length (3.64 acres). APS is proposing to remove only about 283 trees and prune 9 trees. Approximately 12 trees are greater than 12 inches dbh.

Cut trees would be directionally felled away from the VCC and limbs would be lopped off the trunk. The limbs and trunks less than eight inches dbh would be chipped and the material broadcast where road access allows. In areas where removals are near heavily used roads or

campgrounds, APS may cut the logs into firewood lengths to be used by forest visitors. Where access does not allow for a chipper, logs will be cut into eight foot lengths or shorter.

The proposed power line clearance is expected to meet the total clearance needs of this corridor. APS anticipates having to return to the line in five years to address new growth within the power line corridor. However, this consultation only includes the initial clearing of the power line corridor. All other future activities would be analyzed under a programmatic consultation that is currently in progress (consultation number 22410-2007-F-0365) or otherwise undergo separate Section 7 consultation. In addition, hazard tree removal along the line has been ongoing since May 2006 under the Emergency Hazard Tree Removal Project (consultation number 22410-2006-IE-0516) and may continue to be removed under the July 5, 2007, "Phase I Hazard Vegetation Removal in Utility Corridors on Arizona Forests" biological opinion (consultation number 22410-2007-F-0364).

### ***Conservation Actions***

- APS would not perform any work within 0.25 mile of an MSO protected activity center (PAC) or within restricted habitat during the MSO breeding season (March 1 through August 31). APS is not proposing to perform any work in MSO protected steep-slope habitat, so a timing restriction is not necessary.
- To ensure that extra trees are not removed within a PAC during implementation of the project, APS will take extra care to impact only those trees identified within the BAE. APS does not expect more than five trees to be cut within a PAC.

### **STATUS OF THE SPECIES AND CRITICAL HABITAT**

The MSO was listed as a threatened species in 1993 (USDI 1993). The primary threats to the species were cited as even-aged timber harvest and stand-replacing wildfire, although grazing, recreation, and other land uses were also mentioned as possible factors influencing the MSO population. The Fish and Wildlife Service appointed the Mexican Spotted Owl Recovery Team in 1993, which produced the Recovery Plan for the Mexican Spotted Owl (Recovery Plan) in 1995 (USDI 1995).

A detailed account of the taxonomy, biology, and reproductive characteristics of the MSO is found in the Final Rule listing the MSO as a threatened species (USDI 1993) and in the Recovery Plan (USDI 1995). The information provided in those documents is included herein by reference. Although the MSO's entire range covers a broad area of the southwestern United States and Mexico, the MSO does not occur uniformly throughout its range. Instead, it occurs in disjunct localities that correspond to isolated forested mountain systems, canyons, and in some cases steep, rocky canyon lands. Surveys have revealed that the species has an affinity for older, uneven-aged forest, and the species is known to inhabit a physically diverse landscape in the southwestern United States and Mexico.

The U.S. range of the MSO has been divided into six recovery units (RU), as discussed in the Recovery Plan. The primary administrator of lands supporting the MSO in the United States is

the Forest Service. Most owls have been found within Forest Service Region 3 (including 11 National Forests in Arizona and New Mexico). Forest Service Regions 2 and 4 (including two National Forests in Colorado and three in Utah) support fewer owls. According to the Recovery Plan, 91 percent of MSO known to exist in the United States between 1990 and 1993 occurred on lands administered by the Forest Service.

Historical and current anthropogenic uses of MSO habitat include both domestic and wild ungulate grazing, recreation, fuels reduction treatments, resource extraction (e.g., timber, oil, gas), and development. These activities have the potential to reduce the quality of MSO nesting, roosting, and foraging habitat, and may cause disturbance during the breeding season. Livestock and wild ungulate grazing is prevalent throughout Region 3 National Forest lands and is thought to have a negative effect on the availability of grass cover for prey species. Recreation impacts are increasing on all forests, especially in meadow and riparian areas. There is anecdotal information and research that indicates that owls in heavily used recreation areas are much more erratic in their movement patterns and behavior. Fuels reduction treatments, though critical to reducing the risk of severe wildfire, can have short-term adverse effects to MSO through habitat modification and disturbance. As the population grows, especially in Arizona, small communities within and adjacent to National Forest System lands are being developed. This trend may have detrimental effects to MSO by further fragmenting habitat and increasing disturbance during the breeding season. West Nile Virus also has the potential to adversely impact the MSO. The virus has been documented in Arizona, New Mexico, and Colorado, and preliminary information suggests that owls may be highly vulnerable to this disease (Courtney et al. 2004). Unfortunately, due to the secretive nature of owls and the lack of intensive monitoring of banded birds, we will most likely not know when owls contract the disease or the extent of its impact to MSO range-wide.

Currently, high-intensity, stand-replacing fires are influencing ponderosa pine and mixed conifer forest types in Arizona and New Mexico. Uncharacteristic, severe, stand-replacing wildfire is probably the greatest threat to MSO within the action area. As throughout the West, fire severity and size have been increasing within this geographic area.

A reliable estimate of the numbers of owls throughout its entire range is not currently available (USDI 1995) and the quality and quantity of information regarding numbers of MSO vary by source. USDI (1991) reported a total of 2,160 owls throughout the United States. Fletcher (1990) calculated that 2,074 owls existed in Arizona and New Mexico. However, Ganey et al. (2000) estimates approximately  $2,950 \pm 1,067$  (SE) MSOs in the Upper Gila Mountains RU alone. The FS Region 3 most recently reported a total of approximately 1,025 PACs established on NFS lands in Arizona and New Mexico (B. Barrera, FS pers. comm. June 18, 2007). The FS Region 3 data are the most current compiled information available to us; however, survey efforts in areas other than NFS lands have resulted in additional sites being located in all Recovery Units.

Researchers studied MSO population dynamics on one study site in Arizona (n = 63 territories) and one study site in New Mexico (n = 47 territories) from 1991 through 2002. The Final Report, titled "Temporal and Spatial Variation in the Demographic Rates of Two Mexican Spotted Owl Populations," (*in press*) found that reproduction varied greatly over time, while

survival varied little. The estimates of the population rate of change ( $\Lambda = \text{Lamda}$ ) indicated that the Arizona population was stable (mean  $\Lambda$  from 1993 to 2000 = 0.995; 95 percent Confidence Interval = 0.836, 1.155) while the New Mexico population declined at an annual rate of about 6 percent (mean  $\Lambda$  from 1993 to 2000 = 0.937; 95 percent Confidence Interval = 0.895, 0.979). The study concludes that spotted owl populations could experience great (>20 percent) fluctuations in numbers from year to year due to the high annual variation in recruitment. However, due to the high annual variation in recruitment, the MSO is then likely very vulnerable to actions that impact adult survival (e.g., habitat alteration, drought, etc.) during years of low recruitment.

Since the owl was listed, we have completed or have in draft form a total of 185 formal consultations for the MSO. These formal consultations have identified incidences of anticipated incidental take of MSO in 380 PACs. The form of this incidental take is almost entirely harm or harassment, rather than direct mortality. These consultations have primarily dealt with actions proposed by FS Region 3. However, in addition to actions proposed by FS Region 3, we have also reviewed the impacts of actions proposed by the Bureau of Indian Affairs, Department of Defense (including Air Force, Army, and Navy), Department of Energy, National Park Service, and Federal Highway Administration. These proposals have included timber sales, road construction, fire/ecosystem management projects (including prescribed natural and management ignited fires), livestock grazing, recreation activities, utility corridors, military and sightseeing overflights, and other activities. Only two of these projects (release of site-specific owl location information and existing forest plans) have resulted in biological opinions that the proposed action would likely jeopardize the continued existence of the MSO. The jeopardy opinion issued for existing Forest Plans on November 25, 1997 was rendered moot as a non-jeopardy/no adverse modification BO was issued the same day.

In 1996, we issued a biological opinion on FS Region 3 adoption of the Recovery Plan recommendations through an amendment to their Land and Resource Management Plans (LRMPs). In this non-jeopardy biological opinion, we anticipated that approximately 151 PACs would be affected by activities that would result in incidental take of MSOs, with approximately 91 of those PACs located in the Upper Gila Mountains RU. In addition, on January 17, 2003, we completed a reinitiation of the 1996 Forest Plan Amendments biological opinion, which anticipated the additional incidental take of five MSO PACs in Region 3 due to the rate of implementation of the grazing standards and guidelines, for a total of 156 PACs. Consultation on individual actions under these biological opinions resulted in the harm and harassment of approximately 243 PACs on Region 3 NFS lands. FS Region 3 reinitiated consultation on the LRMPs on April 8, 2004. On June 10, 2005, the FWS issued a revised biological opinion on the amended LRMPs. We anticipated that while the Region 3 Forests continue to operate under the existing LRMPs, take is reasonably certain to occur to an additional 10 percent of the known PACs on NFS lands. We expect that continued operation under the plans will result in harm to 49 PACs and harassment to another 49 PACs. To date, consultation on individual actions under the amended Forest Plans, as accounted for under the June 10, 2005, biological opinion has resulted in the incidental take of owls associated with 19 PACs. Incidental take associated with Forest Service fire suppression actions, which was not included in the LRMP proposed action, has resulted in the incidental take of owls associated with 11 PACs.

### *Critical Habitat*

The final MSO critical habitat rule (USDI 2004) designated approximately 8.6 million acres of critical habitat in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands (USDI 2004). Within this larger area, proposed critical habitat is limited to areas that meet the definition of protected and restricted habitat, as described in the Recovery Plan. Protected habitat includes all known owl sites and all areas within mixed conifer or pine-oak habitat with slopes greater than 40 percent where timber harvest has not occurred in the past 20 years. Restricted habitat includes mixed conifer forest, pine-oak forest, and riparian areas outside of protected habitat.

The primary constituent elements for proposed MSO critical habitat were determined from studies of their habitat requirements and information provided in the Recovery Plan (USDI 1995). Since owl habitat can include both canyon and forested areas, primary constituent elements were identified in both areas. The primary constituent elements which occur for the MSO within mixed-conifer, pine-oak, and riparian forest types that provide for one or more of the MSO's habitat needs for nesting, roosting, foraging, and dispersing are in areas defined by the following features for forest structure and prey species habitat:

Primary constituent elements related to forest structure include:

- A range of tree species, including mixed conifer, pine-oak, and riparian forest types, composed of different tree sizes reflecting different ages of trees, 30% to 45% of which are large trees with dbh of 12 inches or more;
- A shade canopy created by the tree branches covering 40% or more of the ground; and,
- Large, dead trees (snags) with a dbh of at least 12 inches.

Primary constituent elements related to the maintenance of adequate prey species include:

- High volumes of fallen trees and other woody debris;
- A wide range of tree and plant species, including hardwoods; and
- Adequate levels of residual plant cover to maintain fruits and seeds, and allow plant regeneration.

The forest habitat attributes listed above usually are present with increasing forest age, but their occurrence may vary by location, past forest management practices or natural disturbance events, forest-type productivity, and plant succession. These characteristics may also be observed in younger stands, especially when the stands contain remnant large trees or patches of large trees. Certain forest management practices may also enhance tree growth and mature stand characteristics where the older, larger trees are allowed to persist.

There are 13 critical habitat units located in the Upper Gila Mountains RU that contain 3.1 million acres of designated critical habitat.

## **ENVIRONMENTAL BASELINE**

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area, the anticipated impacts of all proposed Federal actions within the action area that have undergone formal or early section 7 consultation, and the impact of State and private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform to assess the effects of the action now under consultation.

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

PACs, protected steep-slope habitat, restricted habitat, and critical habitat all occur within the project area. Portions of the project area are within or adjacent to critical habitat units UGM-11 and UGM-12. There are three MSO PACs within 0.25 mile of the project area. These PACs are Lockwood (#040541), Dairy Spring (#040507), and Iowa Camp (#040504). All three PACs have identified nest and roost areas. The MSO habitat within the area is predominantly pine-oak, with some pockets of mixed-conifer habitat.

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

The Mormon Lake and Upper and Lower Lake Mary areas, which encompass the project area, include numerous campgrounds, recreation areas, and trails. Timber sales, fuels-reduction projects, and other actions have all been implemented in and adjacent to the action area. These actions have, to various extents, removed and/or modified MSO key habitat components and primary constituent elements and increased human access to the PACs included in this consultation (e.g., see consultation numbers 2-21-96-F-0351, 2-21-96-F-0059, and 2-21-01-F-0285).

In addition, APS has removed trees along the CQ-12 distribution line in previous actions. APS removed trees within the VCC along the southwest end of Mormon Lake starting at pole 451 and ending at pole 403 from November 2003 to February 2004. This area contains MSO habitat and critical habitat, but no consultation was completed prior to removal of the trees. APS removed a total of 3,612 trees as a part of this clearance project. Size classes, but not species, were recorded for the trees removed. APS estimates that approximately 2,098 trees from four to 11 inches dbh, 629 trees from 12 to 23 inches dbh, and 72 trees greater than 24 inches dbh were removed during this action.

APS also removed trees along the CQ-12 distribution line from August to October 2005 starting at Allen Tank and the Mormon Lake-Mogollon Rim Ranger District boundary and ending near the Happy Jack Ranger Station (pole 520). This removal action occurred primarily in pure ponderosa pine habitat. APS also removed trees along this same approximate stretch (Allen Tank to pole 510) from March to April 2006. During the 2005 and 2006 project, APS removed a total of 4,482 trees from the south end of Mormon Lake to one mile north of the Happy Jack

Ranger Station (3,346 trees were four to 11 inches dbh, 1,044 trees were 12 to 23 inches dbh, and 84 of these trees were greater than 24 inches dbh).

As discussed briefly under the proposed action section, APS has also been removing trees along the CQ-12 power line under an existing emergency consultation (consultation number 22410-2006-IE-0516). Tree removal began in May 2006 and ended in July 2007. As of June 2007, APS has removed approximately 556 trees along this power line. The trees have ranged in size from five inches dbh up to greater than 24 inches dbh. Trees removed have been both alive and dead (snags), conifers and hardwoods, and located both in and outside the VCC. These hazard trees occurred both singly and in large groups along utility corridors, although the removal of large groups of trees has been rare. Consultation for this project has not been completed yet, but a final count and distribution of trees will be analyzed when the BAE for this emergency consultation is completed. Though an additional hazard tree programmatic consultation has been completed (consultation number 22410-2007-F-0364), APS has determined that nearly all hazard trees have already been removed along the CQ-12 line (L. Young, APS, electronic transmission, May 3, 2007). APS does not expect any more than 20 trees to be removed under the programmatic hazard tree consultation. Many of the hazard trees removed under the emergency consultation were originally marked for removal under this CQ-12 line clearance consultation.

## **EFFECTS OF THE ACTION**

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action that will be added to the environmental baseline.

The proposed action will result in the clearing of trees for a width of approximately 30-feet under and around the CQ-12 power line. This will result in the disturbance of approximately 124 acres of habitat within MSO protected, restricted, and critical habitat, and other forest and woodland habitat. In order to minimize disturbance to nesting owls, tree removal will occur outside the MSO breeding season (March 1 to August 31). Specifically, APS proposes to remove 5 trees from within the Lockwood PAC; remove 2,331 and prune 1,053 trees within MSO restricted habitat; and, remove 354 trees and prune 49 trees within MSO critical habitat. There will be no trees removed or pruned within protected steep-slope habitat.

The trees to be removed from the Lockwood PAC (Mormon Lake section) consist of three pine trees from 12 to 24 inches dbh, one pine tree less than 9 inches dbh, and one oak tree less than 9 inches dbh. There are no PACs within 0.25 mile of the Happy Jack section. These trees would be removed outside the breeding season to avoid disturbance to known occupied sites. The nearest proposed removals to a nest are in the Lockwood PAC and these are greater than 0.25 mile from the known nest location. All historical MSO roost locations are at least 0.5 mile from the project area. In addition, the removal of these trees is not expected to adversely affect nesting or roosting habitat within the PAC. Cutting trees and snags within MSO PACs greater than 9 inches dbh is inconsistent with the desired management and direction provided in the Recovery Plan. Though three of the trees to be removed are larger than what the Recovery Plan recommends, the number of trees to be removed within the PAC is small and we do not believe that it will modify the quality of MSO habitat within the Lockwood PAC.

Restricted habitat accounts for approximately 53 acres (14.5 miles) of the project area. Table 3 summarizes the total tree removals and pruning that are proposed to occur within restricted habitat. APS proposes to remove 2,331 trees and prune 1,053 trees in restricted habitat. Because the locations of the removal data for the Kinnikinick tap are unknown, all removals along this tap were considered to be in restricted habitat.

**Table 3.** Tree removals and pruning within MSO restricted habitat

	DBH	Mormon Lake Section				Happy Jack Section			
		Pine	Oak	Juniper	Total	Pine	Oak	Juniper	Total
Removals	4-11 inches	1,173	207	53	1,433	182	88	0	270
	12-23 inches	505	20	3	528	8	2	0	10
	24 + inches	7	0	0	7	2	0	0	2
	Snags				80				1
	Total	1,685	227	56	2,048	193	90	0	283
	<b>Total Removals for Both Sections</b>								
<b>Prunes</b>		897	126	7	<b>1,030</b>	5	4	0	<b>9</b>

The removal of large trees, hardwoods, and snags may inhibit the development of nesting and roosting habitat along the existing power line corridor. The CQ-12 corridor had no vegetation-management program until about two years ago when APS began having to manage numerous hazard trees along the line and made the decision to begin clearing the line to national standards. Until recently, these areas have provided key habitat components (e.g., large trees, downed logs, multiple canopy layers) for many years, and MSO likely used habitat in these areas. Removal of trees in MSO habitat would decrease canopy cover and remove large trees, snags, and oaks that can be rare components of MSO habitat. Large, live trees are an important element of MSO habitat, and owl use is often correlated with a medium-to-large tree component (USDI 1995). Large trees and snags take many years to develop and are very difficult to replace, even over the long-term. This action will reduce to some extent the availability of these components in MSO habitat. However, the project area is a relatively small proportion of existing MSO habitat within the area, and this project should not significantly change the distribution or presence of these habitat components within all restricted habitat in the project area (Flagstaff to Happy Jack). In addition, the clearance of the utility corridor may also encourage herbaceous plant species and provide increased habitat for MSO prey species.

Beginning in 2004, tree removal actions along the CQ-12 line have modified and, with the proposed action, will continue to modify the number of large trees, snags, and hardwoods along and adjacent to the power line corridor throughout the project area. The Forest Service did not consult with us on one of these actions (the winter 2004/2005 removal). Therefore, though the number of trees to be removed under this action may not result in a measurable loss of key habitat components at the landscape level, the combination of this action with the other preceding activities has resulted in a significant loss of large trees, snags, and hardwoods in restricted habitat throughout the project area. However, the proposed action will also reduce the potential for fire starts within the power line corridor, which may reduce the potential for high-severity fire in the area. This project may assist with other ongoing fuels reduction projects in the area to reduce the potential for stand-replacing fire in MSO habitat.

*Critical habitat*

There are approximately 10 acres (2.8 miles) of designated critical habitat within the action area. The critical habitat is characterized by ponderosa pine/Gambel oak forest. APS is proposing to remove approximately 300 trees and prune 25 trees within MSO critical habitat. A total of 17 trees are proposed to be removed in critical habitat in the Mormon Lake section (12 trees from four to 12 inches dbh, 3 trees from 12 to 24 inches dbh, and two snags). A total of 283 trees are proposed to be removed in the Happy Jack section (270 trees from four to 12 inches dbh, 10 trees from 12 to 24 inches dbh, two trees greater than 24 inches, and one snag).

The proposed action will reduce the number of large live trees and snags within approximately 10 acres of designated critical habitat. The removal of these trees may open the canopy along the corridor through the need to fell additional trees within the VCC for safety and/or access reasons and possibly modify pockets of habitat outside the corridor through incidental damage to additional trees (though, according to APS, this will be a rare occurrence). This is particularly true along the Happy Jack section where 283 trees will be removed in a section approximately one mile in length (less than five acres). However, the majority of these trees are less than 12 inches dbh, and very few large trees are planned for removal. In addition, as stated above, MSO prey habitat will be increased within the utility corridor. The removal of overstory trees will allow for increased herbaceous vegetation and provide slash for small mammal habitat.

The number of large trees, snags, and hardwoods, all primary constituent elements of MSO critical habitat, has been reduced from the combined effects of tree removal actions along the CQ-12 corridor. However, though these removal actions have reduced these important habitat elements, the action has occurred along a narrow corridor within MSO habitat that has not changed the presence or availability of these habitat elements at the landscape scale. In addition, these actions have reduced the potential for severe wildfire initiating from the power line, which in conjunction with Forest Service fuels-reduction projects, may reduce the risk of high-severity fire in MSO habitat.

**CUMULATIVE EFFECTS**

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The project area is predominately managed by the Coconino National Forest. Future non-federal actions within the project area that are reasonably certain to occur include the potential development and/or modification (e.g., road construction, land clearing, logging, fuelwood gathering) of private property in-holdings. These activities may reduce the quality and quantity of MSO nesting, roosting, and foraging habitat; result in disturbance to breeding MSOs; and 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 our biological opinion that implementation of the CQ-12 Power Line Clearance Project will not likely jeopardize the continued existence of the MSO, and is not likely to destroy or adversely modify designated critical habitat.

This biological opinion does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 CFR 402.02. Instead, we have relied upon the statute and the August 6, 2004, Ninth Circuit Court of Appeals decision in *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service* (No. 03-35279) to complete this analysis with respect to critical habitat.

We present this conclusion for the MSO and critical habitat for the following reasons:

1. Though tree removal in critical habitat may result in the loss of some primary constituent elements and tree removal in restricted habitat may reduce key habitat components, the proposed action will not decrease the long-term viability of MSO habitat within the project area.
2. The implementation of the proposed action is not expected to significantly impede the survival or recovery of MSO within the Upper Gila Mountains Recovery Unit.

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

## INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is defined (50 CFR 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. “Harass” is defined (50 CFR 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to breeding, feeding or sheltering. “Incidental take” is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as the part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

### **Amount or Extent of Take Anticipated**

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

Using available information as summarized within this document, we have identified conditions of adverse effects to the MSO associated with implementation of the CQ-12 Power Line Clearance Project. However, based on the best available information concerning the MSO, habitat needs of the species, the project description, and information furnished by the Forest Service, we do not believe that the Forest Service's predicted estimates for loss of snags, live trees, and other key habitat components within PACs or in adjacent restricted habitat is reasonably certain to affect spotted owls to the point where incidental take occurs. In addition, tree removal and pruning will be conducted outside the breeding season within 0.25 mile of PACs to eliminate the potential for disturbance to nesting birds.

### **DISPOSITION OF DEAD, INJURED, OR SICK MSO**

Upon locating a dead, injured, or sick spotted owl, initial notification must be made to the Service's Law Enforcement Office, 2450 West Broadway Suite #113, Mesa, Arizona 85202 (telephone: 480/967-7900) within three working days of its finding. Written notification must be made within five calendar days and should include the date, time, and location of the animal, a photograph, if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling specimens to preserve the biological material in the best possible state. If possible, the remains of intact owl(s) shall be provided to this office. If the remains of the owl(s) are not intact or are not collected, the information noted above shall be obtained and the carcass left in place. Injured animals should be transported to a qualified veterinarian by an authorized biologist. Should the treated owl(s) survive, the AESO should be contacted regarding the final disposition of the animal.

### **CONSERVATION RECOMMENDATIONS**

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purpose of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. We recommend that the Forest Service and APS continue to work with us to develop management plans for the power lines that will minimize effects to listed and sensitive species.

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

**REINITIATION - CLOSING STATEMENT**

This concludes formal consultation on the action outlined in this biological opinion. As provided in 50 CFR Section 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. 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 continued coordination. No further section 7 consultation is required for this project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered.

We also encourage you to coordinate the review of this project with the Arizona Game and Fish Department. In all future correspondence on this project, please refer to consultation number 22410-2004-F-0129.

Should you require further assistance or if you have any questions, please contact Shaula Hedwall (x103) or Brenda Smith (x101) of our Flagstaff Suboffice at (928) 226-0614.

Sincerely,

/s/ Steven L. Spangle  
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Regional Supervisor, Arizona Game and Fish Department, Flagstaff, AZ  
Forest Biologist, Coconino National Forest, Supervisor's Office, Flagstaff, AZ  
District Ranger, Flagstaff Center (Peaks/Mormon Lake Ranger District, Flagstaff, AZ  
District Wildlife Staff, Peaks Ranger District, Flagstaff, AZ (Attn: Cary Thompson)  
Fish and Wildlife Service, Ecological Services, Phoenix, AZ (Attn: Greg Beatty)

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## APPENDIX A – TECHNICAL ASSISTANCE

This appendix contains recommendations to the Forest Service to reduce the likelihood of take of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) resulting from implementation of the proposed CQ-12 Power Line Clearance Project.

The final rule to remove the bald eagle from the Federal List of Threatened and Endangered Species was published in the Federal Register on July 9, 2007, and took effect on August 8, 2007. However, the bald and golden eagles continue to be protected by the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking eagles, including their parts, nests, or eggs. “Take” is defined under the Eagle Act as “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” eagles. Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based upon the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior (USDI 2007).

The Forest Service, FWS, and APS jointly developed the following conservation measures to minimize impacts to eagles in the project area. We agree that the implementation of the following measures will reduce the likelihood of take.

### Bald eagle

1. APS vegetation management crews will not cut within a 0.25 mile radius of eagles they see perched near the line. Tree removal will commence when the eagle has left the area of its own accord.
2. APS will implement a timing restriction during the bald eagle wintering season (October 15 to April 15) within 0.25 mile of bald eagle roosts to minimize potential noise disturbance to roosting birds. Therefore, clearing would not occur at spans 100 to 118, 153 to 163, 189 to 209, 305 to 319, 348 to 376, 390 to 416, and 4K to 13K (Kinnikinick Tap) during this time period.

### Golden eagle

1. If a golden eagle nest is determined to be occupied, APS will not remove any trees within 0.25 mile of the nest during the breeding season (March 1 to August 31). This restriction includes spans 189 to 202 and 213 to 225. If the nest is unoccupied by May 31, APS would continue normal clearance work in these areas without timing restrictions.