



# United States Department of the Interior

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Cons. # 2-22-96-F-456

Jose M. Martinez, Forest Supervisor  
Lincoln National Forest  
1101 New York Avenue  
Alamogordo, New Mexico 88310-6992

Dear Mr. Martinez:

This responds to your September 24, 1999, request for formal consultation with the U.S. Fish and Wildlife Service (Service) under section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The request concerns the Sacramento Ranger District's plans to issue a 10-year special use permit to the Otero County Electric Cooperative (OCEC) to construct a new powerline from their substation south of the Village of Cloudcroft to James Canyon at Highway 82 (T. 16 S., R. 13 E., sections 4 and 5), within the Sacramento Ranger District of the Lincoln National Forest, Otero County, New Mexico. The Forest Service determined that the construction of this new powerline is likely to adversely affect Mexican spotted owl (*Strix occidentalis lucida*) (owl) habitat. This document represents the Service's biological opinion on the effects of that action on the threatened owl and its habitat in accordance with section 7 of the Act.

This biological opinion is based on information provided in the September 1999, biological assessment (BA); the October 1999, Environmental Assessment; telephone conversations between our staffs; data presented in the final Recovery Plan (USDI 1995) for the owl; data in our files; Forest Service regional owl data; literature review; and other sources of information. References cited in this biological opinion are not a complete bibliography of all literature available on the owl, the proposed action and its effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

## Consultation History

Informal consultation began on September 4, 1996, when the Forest Service submitted a scoping letter with request for comments on the proposed project. The Service provided comments and a species list on September 27, 1996. A comment copy of the Environmental Assessment was submitted on June 22, 1999. The Service's July 21, 1999, response indicated concerns with potential adverse impacts of the proposal and recommended

submittal of a BA. The Forest Service submitted the BA with a request for formal consultation on September 24, 1999. The New Mexico Ecological Services Field Office received the request on September 29, 1999. The revised Environmental Assessment was submitted on October 7, 1999. The request for formal consultation was acknowledged by this office in a letter dated November 24, 1999. Subsequent discussions occurred between our staffs concerning owl locations and when the project would be implemented. On March 2, 2000, the District provided a letter that clarified when the project would be implemented.

### **BIOLOGICAL OPINION**

It is the Service's biological opinion that the proposed OCEC's powerline construction from the substation south of Cloudcroft to James Canyon as addressed in this document is not likely to jeopardize the continued existence of the Mexican spotted owl.

### **DESCRIPTION OF THE PROPOSED ACTION**

The OCEC has submitted a special-use application to the Forest Service to construct a new powerline connecting the existing substation south of Cloudcroft to James Canyon. The stated purpose and need for the action is to provide more dependable electric power service to customers in the James Canyon area, with fewer interruptions. It is also to prepare for increased demand for electric power due to the anticipated population growth in James Canyon and in other areas east of Cloudcroft that are served by OCEC.

The project includes construction of 2.65 miles of new powerline and a low standard road for access during construction and maintenance during the 10-year term. The proposed route begins at the substation, heads northeast for a distance of approximately 1.1 miles, then turns almost due north and passes through Camp Dale Resler (an organization camp operated by the Boy Scouts of America under a special use permit from the Forest) for a distance of 0.35 mile, then northeast again for 0.2 mile, then north-northeast for approximately 1 mile until it joins with an existing powerline at State Highway 82. The project alignment was adjusted (from the estimates in the original EA) to include more meadow, add a 500-foot spur line to the Sleepy Grass Camp Ground host site, and to clear replacement camping sites within the scout camp. This change was made due to concerns about the number of trees greater than 24 inches diameter at breast height (dbh) being cut, maintaining a straight alignment for the poles, getting power to the host site, and replacing some structures within the Dale Resler Boy Scout camp that the powerline will disturb. The revised route will still head northeast from Camp Dale Resler for approximately 0.2 mile, but will avoid the tree line by moving slightly to the west by approximately 200 feet and heading down the meadow.

The proposal will produce the following long-term changes on the ground. These changes will remain in place for the life of the special use permit or until future projects modify or remove the improvements:

1) Construction of approximately 2.65 miles of new electric powerline mounted on overhead wooden poles 40-50 feet tall. An auger will be used to drill holes for the poles. The poles will be situated approximately 300 to 350 feet apart. A spur line (approximately 500 feet in length) will also be added to the main line to serve the campground host site at Sleepy Grass Campground.

2) A low standard road will be constructed to allow access for construction and maintenance of the power lines and poles. Public access on the road will be discouraged. If necessary, road closure gates will be installed to regulate access on the road. A portion of the access road. Some or all of this portion of the road will be maintained for the use of camp personnel to operate the camp.

3) Vegetation, including all trees and shrubs, will be removed to accommodate the powerline, poles and access road. Treatment will include removing merchantable logs and either burning or chipping the residual material. The clearing will be nearly 100 percent for a distance of 15 feet on either side of the power lines. Trees leaning toward the powerline of sufficient height that they could fall into the powerline will also be removed within 115 feet of the powerline centerline. Landings for log decks will be established along the corridor prior to the removal of the trees. These will be designated by the Forest Officer in charge. All vegetation removal will be planned in advance and supervised by Forest Service personnel.

4) Existing powerlines and poles that are located in Sleepy Grass Picnic Site and serve Camp Dale Resler will be removed as they will no longer be needed. The proposed powerlines will provide electricity to the camp. Existing lines would continue to be used to serve the Cloudcroft Observatory and the Silver Springs area and will also be available as a back-up for the areas served by the new powerline.

5) Total ground disturbance will involve approximately 74 acres (2.65 miles in length by 230 feet in width). Of these 74 acres, approximately 10 acres will be cleared entirely of trees. The remaining 64 acres will be lightly thinning to remove trees that may pose a hazard to the powerlines.

6) Campsites 5, 6, and 7, in Camp Dale Resler will be relocated to make room for the powerline corridor. These will be moved a short distance east of their existing location. A few designated trees and shrubs will be removed to accommodate the new campsites. The vegetation at these campsites will receive treatments similar to the vegetation under and adjacent to the power corridor. The combined area of the campsites is approximately one acre.

Operation and maintenance of the powerline will include visual checks four to six times per year and removal of hazard trees as needed. Emergency maintenance situations, such as trees falling on powerlines, are remedied as they occur. Visual checks include driving a vehicle along the powerline and checking for any problems with the powerline or hazards.

This will require that access to the poweline be maintained. Hazard tree removal includes removing any dead or dying tree that is within approximately 115 feet of the powerline that may fall on the line. It is anticipated that implementation of the project will begin on September 1, 2000. Timber harvesting, road construction, and powerline construction will be scheduled outside the owl breeding season and construction activities in the meadows will only occur from November to February to avoid impacts to the Sacramento checkerspot butterfly. After it is constructed, operation, maintenance, and repair of the powerline can occur at any time.

Mitigation measures identified in the EA include the following: 1) All disturbed areas will be water-barred and/or seeded as needed (depending upon slope, natural regeneration, etc.); 2) Any new access roads constructed will be open to OCEC use only; public vehicular use will not be allowed; 3) To reduce fire hazards and fuel loads, all merchantable wood will be removed and all slash will be chipped and scattered or removed, or piled in the powerline right-of-way (ROW) and burned; 4) If listed noxious plant species occur as a result of soil disturbance, then treatments will be applied to prevent their spread; 5) All operations under this proposal will be scheduled to minimize impacts to wildlife. In addition, standard techniques will be employed to prevent raptor electrocutions at electric distribution lines. The facilities will be designed and installed with sufficient insulating material to ensure the safety of migratory birds that may use the poles and wires for perching and nesting.

#### **STATUS OF THE SPECIES (range-wide)**

The Mexican spotted owl was listed as threatened on March 16, 1993 (58 FR 14248). Critical habitat for the owl was designated on June 6, 1995 (60 FR 29914), but was subsequently withdrawn on March 25, 1998 (63 FR 14378). Background and status information on the owl is found in the Final Rule listing the owl as a federally-threatened species (58 FR 14248), previous biological opinions provided by the Service to the Forest Service, and the final Recovery Plan. The information on species description, life history, population dynamics, status, distribution, and range-wide trends provided in those documents is included herein by reference and is summarized below.

The American Ornithologist's Union currently recognizes three spotted owl subspecies, including the California spotted owl (*Strix occidentalis occidentalis*); Mexican spotted owl (*S. o. lucida*); and northern spotted owl (*S. o. caurina*). The Mexican spotted owl is distinguished from the California and northern subspecies chiefly by geographic distribution and plumage. The Mexican spotted owl is mottled in appearance with irregular white and brown spots on its abdomen, back and head. The spots of the Mexican spotted owl are larger and more numerous than in the other two subspecies giving it a lighter appearance. Several thin white bands mark an otherwise brown tail. Unlike most owls, spotted owls have dark eyes.

The *lucida* subspecies is a distinguishable taxon based on allozyme electrophoresis (Barrowclough and Gutiérrez 1990). Analysis of mitochondrial DNA shows further evidence that the three designated subspecies are valid. Despite the demonstrated phylogenetic relatedness, there is evidence of reduced gene flow between the subspecies, indicating the three subspecies should be treated as separate conservation units (Barrowclough *et al.* 1999).

The Mexican spotted owl has the largest geographic range of the three subspecies. The range extends north from Aguascalientes, Mexico, through the mountains of Arizona, New Mexico, and western Texas, to the canyons of southern Utah, and southwestern Colorado, and the Front Range of central Colorado. Because this is 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 owl's range has not been surveyed. The owl 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. Although there are no estimates of the owl's historic population size, its historic range and present distribution are thought to be similar.

According to the Recovery Plan, 91 percent of owls known to exist in the United States between 1990 and 1993 occurred on land administered by the Forest Service; therefore the primary administrator of lands supporting owls in the United States is the Forest Service. Most owls have been found within Region 3, which includes 11 National Forests in New Mexico and Arizona. Forest Service Regions 2 and 4, including 2 National Forests in Colorado and 3 in Utah, support fewer owls. The range of the owl is divided into 11 Recovery Units (RU), 5 in Mexico and 6 in the United States, as identified in the Recovery Plan (USDI 1995). The Recovery Plan also identifies recovery criteria and provides distribution, abundance, and density estimates by RU. The Upper Gila Mountain Recovery Unit has the greatest known concentration of owl sites (55.9 percent), followed by the Basin and Range-East (16.0 percent), Basin and Range-West, (13.6 percent), Colorado Plateau (8.2 percent), Southern Rocky Mountain-New Mexico (4.5 percent), and Southern Rocky Mountain-Colorado (1.8 percent) RUs.

A reliable estimate of the numbers of owls throughout its entire range is not currently available due to limited information. Fletcher (1990) calculated that 2,074 owls existed in Arizona and New Mexico in 1990 using information gathered by Region 3 of the Forest Service. Fletcher's calculations were subsequently modified by the Service (USDI 1991), who estimated a total of 2,160 owls throughout the United States. However, these numbers are not considered reliable estimates of current population size for a variety of statistical reasons. While the number of owls throughout the range is currently not available, the Recovery Plan reports an estimate of owl sites based on 1990-1993 data. 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. Surveys from 1990 through 1993 indicate one or more owls have been observed at a minimum of 758 sites in the United States and 19 sites in Mexico. In addition, these surveys indicate that the species persists in most locations

reported prior to 1989, with the exception of riparian habitats in the lowlands of Arizona and New Mexico, and all previously occupied areas in the southern States of Mexico.

In a summary of all territory and monitoring data for the 1995 field season, a total of 869 management territories (MT) were reported to the Service (U.S. Forest Service, *in litt.* January 22, 1996). Based on this number of owl sites, total numbers in the United States may range from 869 individuals, assuming each known site was occupied by a single owl, to 1738 individuals, assuming each known site was occupied by a pair of owls. The 1996 data are the most current compiled information available to the Service; however, more recent surveys efforts have likely resulted in additional sites being located in all Recovery Units.

Mexican spotted owls breed sporadically and do not nest every year. This owl's reproductive chronology varies somewhat across its range. In Arizona, courtship apparently begins in March with pairs roosting together during the day and calling to each other at dusk (Ganey 1988). Eggs are laid in late March or typically early April. Incubation begins shortly after the first egg is laid, and is performed entirely by the female (Ganey 1988). The incubation period for the owl is assumed to be 30 days (Ganey 1988). During incubation and the first half of the brooding period, the female leaves the nest only to defecate, regurgitate pellets, or receive prey from the male, who does all or most of the foraging (Forsman *et al.* 1984, Ganey 1988). Eggs usually hatch in early May, with nestling owls fledging four to five weeks later, and then dispersing in mid-September to early October (Ganey 1988).

Little is known about the reproductive output for the spotted owl. It varies both spatially and temporally (White *et al.* 1995), but the subspecies demonstrates an average annual rate of 1.001 young per pair. Current demographic research in Arizona and New Mexico has documented populations that are declining at "greater than" 10 percent a year (Seamans *et al.* 1999). Possible reasons for the population declines are declines in habitat quality and regional trends in climate (Seamans *et al.* 1999). Based on short-term population and radio-tracking studies, and longer-term monitoring studies, the probability of an adult owl surviving from one year to the next is 0.8 to 0.9. Juvenile survival is considerably lower, at 0.06 to 0.29, although it is believed these estimates may be artificially low due to the high likelihood of permanent dispersal from the study area, and the lag of several years before marked juveniles reappear as territory holders and are detected as survivors through recapture efforts (White *et al.* 1995). Little research has been conducted on the causes of mortality, but predation by great horned owls, northern goshawks, red-tailed hawks, and golden eagles, as well as starvation, and accidents or collisions, may all be contributing factors.

Mexican spotted owls nest, roost, forage, and disperse in a diverse array of biotic communities. Nesting habitat is typically in areas with complex forest structure or rocky canyons, and contain mature or old-growth stands that are uneven-aged, multi-storied, and have high canopy closure (Ganey and Balda 1989, USDI 1991). In the northern portion of the range (southern Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Elsewhere, the majority of nests appear to be in Douglas fir trees (Fletcher

and Hollis 1994, Seamans and Gutierrez 1995). A wider variety of tree species is used for roosting; however, Douglas fir is the most commonly used species (Ganey 1988, Fletcher and Hollis 1994, Young *et al.* 1998). Spotted owls generally use a wider variety of forest conditions (mixed conifer, pine-oak, ponderosa pine, piñon-juniper) for foraging than they use for nesting/roosting.

Seasonal movement patterns of Mexican spotted owls are variable. Some individuals are year-round residents within an area, some remain in the same general area but show shifts in habitat use patterns, and some migrate considerable distances (20-50 kilometers (12-31 miles) during the winter, generally migrating to more open habitat at lower elevations (Ganey and Balda 1989b, Willey 1993, Ganey *et al.* 1998). Home-range size of Mexican spotted owls appears to vary considerably among habitats and/or geographic areas (USDI 1995), ranging in size from 261 to 1,487 hectares (647 - 3,688 acres) for individuals birds, and 381 to 1,551 hectares (945 - 3,846 acres) for pairs (Ganey and Balda 1989b, Ganey *et al.* 1999). Little is known about habitat use of juveniles during natal dispersal. Ganey *et al.* (1998) found dispersing juveniles in a variety of habitats ranging from high-elevation forests to piñon-juniper woodlands and riparian areas surrounded by desert grasslands.

Mexican spotted owls consume a variety of prey throughout their range but commonly eat small and medium sized rodents such as woodrats (*Neotoma* spp.), peromyscid mice, and microtine voles. They may also consume bats, birds, reptiles, and arthropods (Ward and Block 1995). Habitat correlates of the owl's common prey emphasizes that each prey species uses a unique habitat. Deer mice (*Peromyscus maniculatus*) are ubiquitous in distribution in comparison to brush mice (*Peromyscus boylei*), which are restricted to drier, rockier substrates, with sparse tree cover. Mexican woodrats (*N. mexicana*) are typically found in areas with considerable shrub or understory tree cover and high log volumes or rocky outcrops. Mexican voles (*Microtus mexicanus*) are associated with high herbaceous cover, primarily grasses; whereas, long-tailed voles (*M. longicaudus*) are found in dense herbaceous cover, primarily forbs, with many shrubs, and limited tree cover. A diverse prey base is dependant on the availability and quality of diverse habitats.

The Mexican Spotted Owl Recovery Plan provides for three levels of habitat management: protected areas, restricted areas, and other forest and woodland types. "Protected habitat" includes all known owl sites, and all areas in mixed conifer or pine-oak forests with slopes "greater than" 40 percent where timber harvest has not occurred in the past 20 years, and all reserved lands. Protected Activity Centers (PACs) too are delineated around known Mexican spotted owl sites. A PAC includes a minimum of 243 hectares (600 acres) designed to include the best nesting and roosting habitat in the area. The recommended size for a PAC includes, on average from available data, 75 percent of the foraging area of an owl. The management guidelines recommended in the recovery plan for protected areas are to take precedence for activities within those areas. "Restricted habitat" includes mixed conifer forest, pine-oak forest, and riparian areas; the recovery plan provides less specific management guidelines for these areas. The recovery plan provides no owl-specific guidelines for "other habitat."

Past, current, and future timber harvest practices in Region 3 of the Forest Service, in addition to catastrophic wildfire, were cited as primary factors leading to the listing of the owl as a federally-threatened species. Other factors that have or may lead to the decline of this species include a lack of adequate regulatory mechanisms. In addition, the Recovery Plan notes that forest management has created ecotones favored by great horned owls, increasing the likelihood of predation on the owl. Increases in scientific research, birding, educational field trips, and agency trips are also likely to increase. Finally, there is a potential for increasing malicious and accidental anthropogenic harm, and the potential for the barred owl to expand its range, resulting in competition and/or hybridization with the spotted owl.

### **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, the anticipated impacts of all proposed Federal actions in the action area that have undergone section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress. 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 total of 221 projects have undergone formal consultation for the owl. Of that aggregate, 81 projects resulted in a total anticipated incidental take of 181 owls. These consultations have primarily dealt with actions proposed by the Forest Service, Region 3, but have also addressed 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 overflights, and other construction activities.

On the Lincoln NF, past and present Federal, State, private, and other human activities that may affect the owl and its habitat include Hay and Scott Able Timber Sales, Bridge Salvage Sale, other vegetation manipulations (various small sales, fuelwood gathering activities, salvage sales, and prescribed burns), livestock grazing, recreational activities, development of recreation sites (campgrounds) and scenic vistas, road construction and maintenance activities, land exchanges, issuance of rights-of way, and off-road motorcycle events. Forest management activities (timber sales, etc.) on adjacent Tribal and private lands, urban development in and around Cloudcroft, and fire suppression also affect the environmental baseline. In addition, the risk of catastrophic habitat loss due to fire is moderately high. Past fires such as the Burgett and Bridge fires have modified thousands of acres of habitat and impacted several owl territories.



The proposed new OCEC powerline would cross a relatively small portion of land managed by the Forest Service, but it is very close to the Village of Cloudcroft and a significant amount of private land development, such as the Woodlands Subdivision, is occurring in the area. In addition, roads and recreation facilities, such as the Camp Dale Resler, the Sleepy Grass Campground, and a ski resort already exist in the area. Therefore, the proposed action may significantly add to the environmental baseline by supporting further development of owl habitat.

#### **STATUS OF THE SPECIES (within the Action Area)**

The Lincoln NF is within the Basin and Range - East RU. This RU contains the second highest concentration of known owl sites (16.0 percent) in the United States. Because of the high concentration of owls, this RU has been referred to as an important owl distribution center in the Recovery Plan. Owls occur in isolated mountain ranges scattered across this RU, but the largest portion of the owl subpopulation occurs in the Sacramento Mountains. They are most common in mixed-conifer forest, but have been located in ponderosa pine forest and piñon/juniper woodland on a few occasions (Skaggs and Raitt 1988). Owl sites have been reported on National Forest lands in the Sandia, Manzano, Sacramento, and Guadalupe Mountains, as well as the Guadalupe National Park and on Mescalero Apache Tribal lands.

Owls occurring in the Sacramento Mountains have been exposed to various disturbances for more than a century. Natural disturbances include forest fires and human disturbances, including timber and fuelwood harvest, grazing, land development, and recreation. Coniferous forests, especially the mixed-conifer, were extensively logged during an era of railroad logging from 1890 to 1945 (Glover 1984). After the railroad logging era, trees grew rapidly and attained merchantable sizes in about 40-50 years on favorable sites. Consequently, much of the habitat currently used by owls in the Sacramento Mountains is regrowth forest that has attained a high density of moderately sized trees, poles, and saplings, together forming multiple layers. According to the Recovery Plan, the greatest threats in this RU, in order of potential effects, are catastrophic fire, timber harvest, fuelwood harvest, grazing, human developments, and forest insects and disease. Other activities that are considered potential threats to the owl include certain military operations, other habitat alterations (such as powerlines and roads), mining, and recreation. Recovery in this unit will require maintenance of existing and future populations by conserving habitats in areas not only inhabited by owls, but also in areas between occupied sites.

Currently, there are a total of 131 owl sites (PACs) on the Lincoln NF. Of these, 106 are on the Sacramento Ranger District, where the proposed project is located (pers. comm., George Garcia, U.S. Forest Service, January 2000). Forest Service lands surrounding the project area were surveyed for owls in 1990 and 1992, as part of the planning efforts for the Pumper Timber Sale. The area was resurveyed in 1995 and 1998 for this project. In addition, a partial inventory (2 surveys) was completed in March/April, 2000, to determine whether owls has established occupancy prior to project implementation. The survey efforts since

1990 have resulted in the establishment of seven PACs in the vicinity; however, none along the proposed powerline corridor. Three different PACs (Little Apache, Rawlins, and Pierce) are within one mile of the proposed powerline. The Little Apache PAC has no known nest site but has the highway between it and the project area. Nest sites for the Rawlins PAC area over 1 mile away and have two ridges between them and the project area. The Pierce PAC has no known nest site but is over 1/4 mile from the project area with the main use area across highway 130 from the project area.

On the Lincoln NF, mixed conifer habitat is considered either protected or restricted habitat as defined in the owl Recovery Plan. There are currently 59,950 acres of mixed conifer habitat within the S4 Ecosystem area, which includes the project area. Within S4, 26,562 acres is within existing PACs and another 19,538 acres that are on slopes greater than 40 percent, which are also protected. For the purpose of analyzing the potential impacts of the proposed action a small analysis area (approximately one mile around the project area) was examined. This smaller analysis area is approximately 12,000 acres in size. Of this, approximately 2,123 acres (18 percent) is not Forest Service land. Most of the non-Forest Service land is highly developed private lands. Within the National Forest, there are three camp grounds that occupy approximately 12 acres, one picnic area that occupies approximately 20 acres, part of a Scout Camp that occupies 80 acres, and part of a ski resort that occupies about 80 acres. There are approximately 467 acres of mountain meadow. This leaves approximately 9,200 acres of suitable habitat in this smaller analysis area. There are 1,711 acres that are protected (steep slope) habitat which includes some meadow. The remainder of the 7,489 acres is restricted (mixed conifer) habitat. Of this, approximately 1,715 acres meet threshold habitat conditions and 313 acres meet target habitat conditions. The proposed powerline goes through both mixed conifer and meadow habitats.

## EFFECTS OF THE ACTION

The Service's primary task in developing a biological opinion is to determine whether the proposed action is likely to jeopardize the continued existence of any listed species (51 *Federal Register* 1962). The jeopardy/non-jeopardy determination is based on an evaluation of: (1) a species' status in the project area and range wide (see above sections); (2) the effects of the proposed action on the survival and recovery of a listed species (including effects of interdependent and interrelated actions); (3) the aggregate effects of other Federal actions on a listed species (e.g., amount of take occurring as a result of Federal actions subject to previous consultations); and (4) the cumulative effects on a listed species (i.e., future non-Federal actions that are reasonably certain to occur in the action area).

Impacts to the owl from the proposed action will be due to the direct and indirect effects of powerline construction activities and subsequent increases in residential development and recreational use. The proposed project site is not within a PAC or on slopes greater than 40 percent. Since no owls are known to occupy the area and the nearest known PACs are more than 1/4 mile from the project site, no direct effects on owls are anticipated. In addition, the project itself, is not expected to add to the amount of human activity within nearby PACs

after implementation. Direct impacts to habitat would include removal of vegetation from the powerline corridor. This will result in the loss of forest habitat, including mature trees, within restricted and threshold habitat along the corridor. Approximately 74 acres, all within mixed conifer or meadow habitat, will be impacted. Of this approximately 5.0 acres within threshold habitat that will be clear-cut and another 33 acres of threshold habitat will have hazard trees removed (all trees that are leaning toward the powerline within 115 feet of each side of the powerline). The original estimate of 174 trees over 24 inches dbh to be removed along the 2.65 miles was reduced to 98 trees by moving the line by a couple of hundred feet.

The project clearing and construction will occur outside the breeding season, but maintenance and emergency repair may occur during the breeding season. Construction and clearing activities within the forest area will have a March 1 to August 31 restriction and the meadow area will have a March 1 to October 30 restriction. The meadow area will also have all skidding of logs and slash completed with a snow cover, due to other resource concerns.

Since 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 owl from granting this permit. 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. Road construction, hazard tree removal, etc. are all considered interrelated and interdependent with the powerline construction, maintenance, and operation.

The most significant indirect effects are expected to result from increased development and recreation in and around Cloudcroft. The direct impacts of the project on owl habitat, in and of themselves, are not significant; however, the new powerline will make electric service more readily available and will facilitate even more development of the area, which will result in additional habitat degradation. Private land in holdings with summer homes and camping areas are a source of increase recreational activities. Although the entire powerline alignment is on Forest Service land, much of the available private land is currently being developed as residential property (i.e., the Woodland subdivision). In addition, the area is already highly impacted by recreation facilities (campgrounds, ski area, etc.) and roads.

The recovery plan considers the reduction of large trees outside of Protected Areas a threat to the owls in the Basin and Range East Recovery Unit. Noise and habitat disturbance from recreation may impact owl habitat at a local scale. Concentrated human development may affect dispersing and wintering owls by reducing the spatial extent of habitat (USDI 1995). Owls (particularly juveniles) that have been displaced or forage and/or disperse through disturbed areas may be more vulnerable to predation; therefore, there may be a greater loss of owls over time.

## CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the foreseeable future 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. 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 of minor impact." However, there has been a recent increase of harvest activities on non-Federal lands (e.g., timber harvest on neighboring Mescalero Apache Reservation, private land timber sales on in holdings in and around the Lincoln NF). In addition, future actions within or adjacent to the Forest Service lands that are reasonably expected to occur include urban development, road construction, land clearing, logging, fuelwood gathering, and other associated actions. The project area is located on the south and east sides of the Village of Cloudcroft, New Mexico. It is surrounded by developed sites that include the Dale Resler Boy Scout camp and the Sleepy Grass campground and picnic area, where activities occur seasonally, and the Village of Cloudcroft and area surrounding the existing powerlines, where activities occur year-round. Other past, present and foreseeable future Forest Service projects that may contribute to cumulative effects are: Construction of the Trestle Recreation Area (1995), Land exchange with the Cloudcroft School District (1997), Proposed land exchange with the Village of Cloudcroft (1999), the proposed Peñasco Wildland Urban Interface/Fuels Reduction project (2000), and reconstruction of the Sacramento River Road. These activities reduce the quality and quantity of owl nesting, roosting and foraging habitat, cause disturbance to breeding owls and would contribute as cumulative effects to the proposed action.

## CONCLUSION

After reviewing the current status of the owl, 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 action, as proposed, is not likely to jeopardize the continued existence of the owl. The implementation of the proposed project, as described in this biological opinion, has the potential to adversely affect owl habitat, but the extent and magnitude of the impacts are not expected to result in "take" since no owls are known to occupy the area and a seasonal restriction will be implemented. Based on the current level of human activity, it is unlikely that the habitat in the affected area will provide for nesting and roosting, but the residual stand could provide foraging and dispersal habitat. Given the current habitat conditions and amount of existing disturbance in the area, the amount of additional disturbance caused by the proposed action is not likely to impact the current number and reproductive success of owls in this part of the Sacramento Mountains. The Service believes that although there will be adverse effects to owl habitat at a local level, the proposed action is not expected to impede the owl's ability to nest, roost, forage, or disperse within the Basin and Range-East

RU. Sufficient owl habitat will remain for owls to nest, roost, forage, and disperse. No critical habitat is currently designated for this species; therefore, none will be affected.

### **INCIDENTAL TAKE**

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct. Harass is further defined by the Service as intentional or negligent actions that creates 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, and sheltering. Harm is further defined by the Service 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. 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 part of the agency action is not considered a prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

For the purposes of this consultation, incidental take of owls 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 the birds to such a degree that the birds are considered lost as viable members of the population and are thus "taken." They may fail to breed, fail to successfully rear young due to inadequate food supplies available in altered habitat, raise fewer young, raise less fit young, or desert the area because of disturbance when habitat no longer meets the owl's needs.

The current section 7 consultation policy states that incidental take can only be supported if an activity compromises the integrity of a PAC. Action outside PACs will not be considered incidental take, except in cases when areas that may support owls have not been adequately surveyed. The Service does not anticipate that the proposed action, as described in this biological opinion, will lead to incidental take of owls. This determination is based on the knowledge that nesting owls will not be affected; survey data indicate that owls do not currently occupying the proposed project area and the project will be implemented outside the breeding season to minimize potential impacts. Therefore, no reasonable and prudent measures are provided.

### **CONSERVATION RECOMMENDATIONS**

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes 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. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's section 7(a)(1) responsibility for these species.

1. Work with private landowners and communities adjacent to and within the Lincoln National Forest to emphasize the benefits of ecological diversity and the contribution that the Mexican spotted owl provides to that diversity and forest health.
2. Restore disturbed areas on the project site, such as the roadfill slope, to native meadow plants and incorporate native nectar sources useful to the Sacramento Mountains checkerspot butterfly. Utilize locally adapted native plant species only. Develop a field methodology in consultation with the Service for the long-term monitoring of project impacts on the Sacramento Mountains checkerspot butterfly.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

#### **DISPOSITION OF DEAD OR INJURED LISTED ANIMALS**

Upon finding a dead, injured, or sick individual of an endangered or threatened species, initial notification must be made to the nearest Service Law Enforcement Office. In New Mexico, contact (505/346-7828) or the New Mexico Ecological Services State Office (505/346-2525). Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph, and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible condition. If feasible, the remains of intact specimens of listed animals shall be submitted to educational or research institutions holding appropriate State and Federal permits. If such institutions are not available, the information noted above shall be obtained and the carcass left in place.

Arrangements regarding proper disposition of potential museum specimens shall be made with the institution before implementation of the action. A qualified biologist should transport injured animals to a qualified veterinarian. Should any treated listed animal survive, the Service should be contacted regarding the final disposition of the animal.


#### **REINITIATION - CLOSING STATEMENT**

This concludes formal consultation on the OCEC powerline construction project submitted by the Lincoln National Forest on September 24, 1999. As required by 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1)

the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may impact 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 of consultation.

In future communications regarding this project, please refer to consultation #2-22-96-F-456. If you have any questions or would like to discuss any part of this biological opinion, please contact Carol Torrez of my staff at (505) 346-2525 extension 115.

Sincerely,



Joy E. Nicholopoulos  
Field Supervisor

cc:  
District Ranger, U.S. Forest Service, Lincoln National Forest, Sacramento Ranger District,  
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Field Supervisor, U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office,  
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