

SUMMARY
BIOLOGICAL OPINION ON THE EFFECTS TO
THE CRITICAL HABITAT OF THE MEXICAN SPOTTED OWL FROM
THE TWILIGHT CAMPGROUND DEVELOPMENT PROJECT

Cons. #2-21-93-F-457

Date of the opinion: July 18, 1995

Action agency: U.S. Forest Service, Region 3.

Projects: The Twilight Campground development project

Listed species affected: Mexican spotted owl (Strix occidentalis lucida)

Biological Opinion: It is the opinion of the Service that this project will not destroy or adversely modify the Mexican spotted owl's critical habitat.

Incidental take statement: No additional Mexican spotted owls are expected to be taken as a result of this project.

Conservation Recommendations: Implementation of conservation recommendations is discretionary. Four conservation recommendations are provided.



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ARIZONA ECOLOGICAL SERVICES STATE OFFICE
2321 W. Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951



Telephone: (602) 640-2720 FAX: (602) 640-2730

July 18, 1995

In Reply Refer To:
AESO/SE
2-21-93-F-457

Mr. J.M. Borens, Jr.
Acting Forest Supervisor
300 W. Congress
Tucson, AZ 85701

Dear Mr. Borens:

Pursuant to the Endangered Species Act (Act), the U.S. Fish and Wildlife Service (Service) received your request for formal conferencing for proposed critical habitat for the Mexican spotted owl (*Strix occidentalis lucida*) (MSO) dated March 28, 1995 and received in this office on March 29, 1995 for the Twilight Campground development project. Your letter stated that the Forest determined that this project would not result in destruction or adverse modification of proposed critical habitat. The letter requested written concurrence from the Service with this determination or initiation of conferencing if appropriate. A may affect, not likely to adversely affect determination, was made for critical habitat on the Twilight Campground development project (pers. comm. G. Froelich). The Service does not concur with this determination.

This Biological Opinion concerns only the critical habitat for the MSO, which is listed as a threatened species under the Act. The final rule to designate critical habitat for the MSO was published on June 6, 1995 (Federal Register vol. 60, No. 108) and became effective on July 6, 1995. The Service has identified 107 critical habitat units totaling 4,734,874 acres in Arizona, Colorado, New Mexico, and Utah; however, this biological opinion is limited to one project in Arizona. Thirty-eight critical habitat units have been designated for Arizona totaling 1,991,611 acres. Of this, 1,510,148 acres are within Forest Service system lands in New Mexico. Pursuant to regulations at 50 CFR 402.16 (d), the Forest Service must reinstate formal consultation when critical habitat is designated that may be affected by a proposed action. Many Forest Service actions that previously underwent formal consultation for effects on the MSO are in critical habitat areas and must, therefore, be evaluated for their likelihood to destroy or adversely modify critical habitat.

According to the Service's April 14, 1995, Regional Interim Policy on Section 7 Consultation, any actions that comply with the recommendations in the Draft Mexican Spotted Owl Recovery Plan (U.S. Fish and Wildlife Service 1995)(Plan), hereafter referred to as the Plan, are not likely to adversely affect the MSO or its critical habitat. Conversely, actions that previously underwent formal consultation were designed prior to development of the Plan and thus, may not conform to the precise recommendations of the Plan. Therefore, consultation was reinitiated on a number of projects throughout Arizona and New Mexico.

The action considered in reinitiation of consultation must be reviewed to determine whether the action is likely to jeopardize the continued existence of the MSO and/or adversely modify or destroy its critical habitat. The Service is compiling the data and assessing the effects of combined actions on the species and each affected critical habitat unit, as well as all critical habitat in total, and affected recovery units (RUs) as delineated in the Plan. To this end, the Service determined whether the action is likely to jeopardize the continued existence of the species or adversely modify its critical habitat.

CONSULTATION HISTORY

Formal consultation for the MSO for the this project was completed on December 14, 1993. The following biological opinion for critical habitat is based on the information provided for the above mentioned consultation as well as a letter to the State Supervisor from the District Ranger (January 21, 1994), a letter to the Regional Director from the Acting Regional Forester (May 5, 1994), a response letter from the Service to the Regional Forester (August 31, 1994), the Environmental Assessment (EA)(Mailed January 17, 1995), and a site visit on June 29, 1995.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

The proposed Twilight Campground is located in the Pinaleno Mountains in southeast Arizona on the Safford Ranger District, Coronado National Forest. The area is located in critical habitat unit AZ-CRNF-13 and will potentially affect two MSO territories. The proposed development encompasses approximately 10 acres with 2.68 acres of actual ground disturbance in restricted habitat. Approximately 120 to 150 trees greater than 6 inches diameter breast height (dbh) would need to be removed to accommodate the new facilities (EA, mailed January 17, 1995). This disturbance will include the removal of trees of 24 inches and greater dbh and the removal of hazard trees from the immediate vicinity of the proposed campground (pers. comm. G. Froehlich). The vegetation consists of mature ponderosa pine with scattered Douglas-fir and a sparse understory of oak. No measurable change in acreages between VSS (vegetation structural stage) classes would result from implementation of any of the campground alternatives (EA, mailed January 17, 1995).

The proposal includes construction of a campground with three separate paved loops which would include 27 camping spurs and one campground host site. Each loop would contain a ramada and each spur (camp site) would include a picnic table, grill, and tent pad. An additional restroom would be constructed and a well would be drilled. A potable water distribution system would be installed. Area use would be monitored by tabulation of reservation use and the payment of fees for incidental individual use. No dispersed camping would be allowed in the Twilight developed area and 6 trailhead parking slots would be built. Recreational use of the campground will not exceed 55 persons per day during the MSO breeding season.

STATUS OF THE MEXICAN SPOTTED OWL (rangewide)

The range of the MSO within the United States has been divided into six RUs, as discussed in the Plan (see Part II.B.). Although a reliable estimate of the number of MSOs throughout its entire range is currently not available, the Plan reports an estimate of MSO sites. A "site" is defined as either the nest site, a roost grove commonly used during the breeding season, or the best roosting/nesting habitat if nesting and roosting information is lacking. The greatest concentration of known MSO 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. MSO surveys conducted from 1990 through 1993 indicate that the species persists in most locations reported prior to 1989.

Density estimates are available for some portions of its range. MSO density estimates contrasted among forest types in the Sacramento Mountains and between two areas in the Upper Gila Mountains RU suggest that mixed-conifer supports more MSOs compared to pine-oak, pine, and pinon-juniper forest types (see Plan Part II). The current state of knowledge on MSO habitat association is documented in the Plan Part II.G..

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 that have undergone Endangered Species Act section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress.

The Forest Service has formally consulted on 161 timber sales and other projects in Arizona and New Mexico since August 1993. These projects have resulted in the anticipated incidental take of 36 MSOs. In addition, the Bureau of Indian Affairs has consulted on one timber sale on the Navajo Reservation that resulted in an anticipated take of four MSOs. The Federal Highway Administration in Arizona has consulted on one highway construction

project that resulted in an undetermined amount of incidental take until further consultation could be conducted.

The Twilight Campground development project is within critical habitat unit AZ-CRNF-13 of the Basin and Range-West RU. This RU includes most of southern Arizona and a small portion of southwestern New Mexico. Habitat within this critical habitat unit (CHU) is in suitable and relatively unmodified condition. The Coronado National Forest does not have an active timber program; however, localized projects such as mining, and road and construction projects may adversely impact individual territories. Territories occur in both heavily forested terrain and in areas with hardwood and conifer stringers dominated by Madrean Evergreen woodland. The subpopulation occurs in widely distributed territory clusters of varying sizes. The Sky Island Division may represent an important demographic link between the Mogollon Province demes and those in the Sierra Madre Occidental. Demographic persistence and connectivity within the division and between divisions may be hindered by the compounding factors of naturally disjunct habitat and long dispersal distances. The risk of catastrophic habitat loss due to fire in the woodland habitat is moderately high. In the past three years the Noon and Arcadia Wildfires have resulted in the loss of MSO habitat in CHU AZ-CRNF-13. The Noon Fire of 1993 was estimated to have burned 620 acres of which 316 acres were considered suitable MSO habitat and 144 acres were considered capable habitat. It was estimated that 60% burned at low intensity or not at all, 20% burned with a medium intensity, and 20% burned at high intensity. The Arcadia Campground Fire of 1995 burned approximately 150 acres of suitable MSO habitat. The fire was a low intensity fire with an estimate that approximately 10% of the trees in the area were killed or scorched with the potential to kill.

Status of the Mexican Spotted Owl

Within the Basin and Range-West RU in which the proposed project occurs, MSOs were located in rocky canyons or in several forest types at elevations ranging from 1,125 to 2,930 meters (m)[3,690 to 9,610 feet (ft)] of the Atascosa-Pajarito, Santa Rita, Santa Catalina, Patagonia, Whetstone, Galiuro, Huachuca, Chiricahua, Pinaleno, Superstition, Sierra Ancha, Mazatzal, and Bradshaw Mountains, Arizona. Below 1,300 m (4,264 ft), MSOs were found in steep canyons containing cliffs and stands of live oak, Mexican pine and broadleaved riparian vegetation (Ganey and Balda 1989). Above 1,800 m (5,904 ft) MSOs were found in mixed-conifer and pine-oak forests. Mid-elevation observations included sites with Arizona cypress and the other forest types previously mentioned [U.S. Department of the Interior (USDI) 1995].

Effects of the Action

Activities that disturb or remove the primary constituent elements within designated critical habitat units may adversely modify the MSO's critical habitat. These activities may include actions that reduce the canopy closure of a forest stand, reduce the density or the average diameter of trees in a stand, modify the multi-layered structure of a stand, reduce the

availability of nesting structures and sites, reduce regeneration or modify the structure of riparian habitat, reduce the suitability of the landscape to provide adequate cover, or reduce the abundance or availability of prey species (FWS Final Determination of Critical Habitat for the MSO; 60 FR, 19914-19951). For an action to result in the destruction or adverse modification of critical habitat, the action's effects must appreciably reduce the value of critical habitat for survival and recovery over a significant portion of the species' range or within the RU. Altering major portions of a RU may preclude recovery of the species.

The effects of recreation on the MSO have been described in the Plan (Part III). In addition, effects have also been stated in previous Biological Opinions provided by the Service to the Forest Service on December 14, 1993 and May 12, 1994. Effects of the actions on critical habitat were evaluated on various levels, including the project analysis area, critical habitat unit, and the RU. Overall impacts on the species and its habitat from the proposed Forest Service action is summarized below.

The Service was not able to concur with the Forest Service's determination of not likely to adversely affect MSO's critical habitat for the Twilight Campground development project. However, although there will be adverse affects locally (i.e. at the CHU level), the Twilight Campground Development project will not appreciably reduce the function of the Basin and Range-West RU. Because this project does not add up to a significant amount of habitat relative to the size of the RU, this project will not destroy or adversely affect the Basin and Range-West 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 of minor impact." However, because of the recent influx of harvest activities on non-Federal lands, it is the opinion of the Service that the impacts of cumulative effects associated with these activities are of sufficient concern to warrant further investigation.

In addition, past fire suppression activities have resulted in increased fuel loads and increased the potential for wildfires. Recreational use of the surrounding forest is expected to increase and subsequently the potential for human-induced wildfires may also increase. Catastrophic wildfires have been identified as one of the primary threats to MSOs and their habitat throughout most of its range.

Other ongoing or past Federal activities that may affect MSO critical habitat include the maintenance of roads, dead and down fuelwood harvest (both permitted and unpermitted), and the unregulated use of Turkey Flat summer homes.

CONCLUSION

Based on the best scientific and commercial data available, it is the biological opinion of the Service that the above Forest Service management activities will not destroy or lead to adverse modifications of the critical habitat unit. The Service based this on the fact that although there will be an adverse affect to the CHU, the Twilight Campground development project will not appreciably reduce the biological function of the RU. Specifically the Service believes that the project will not impede the MSO's ability to nest, roost, forage, or disperse within and through this RU. In addition, the amount of habitat modified, relative to the size of the RU, is not significant and therefore, will not destroy or adversely affect the RU.

INCIDENTAL TAKE

Impacts to the MSO in the project area were assessed in the December 15, 1993 consultation for the MSO where take was expected to occur as a result of this project. It is the biological opinion of the Service that this project will not lead to any additional incidental take of MSOs, above the take level already identified in previous biological opinion. Therefore, no new reasonable and prudent measures are provided. However, if during the course of the action, the current level of incidental take is exceeded, such incidental take would represent new information requiring review of past reasonable and prudent measures. The Forest Service 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.

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. The term "conservation recommendations" has been defined as Service suggestions regarding discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of 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.

The Service recommends that the following conservation measures be implemented for the Twilight Campground development project.

1. Avoid any activities that adversely affect critical habitat through the implementation of the Plan recommendations. Particularly, the Forest Service should try to retain as many trees greater than 24 inches dbh as possible.
2. Following the Plan (see pp. 442-445), establish Protected Activity Centers (PACs) for the management territories that have been established on the forest. Once designated, provide a copy of the maps of the PACs to the Service.
3. Following the Plan (see pp. 361-362), develop a scientifically valid habitat monitoring protocol for changes in habitat quantity and quality across the range of the MSO.
4. Develop a system to track past, on-going, and proposed actions to adequately address and quantify not only the environmental baseline, but also the effects of actions on the species and its designated critical habitat.

In order for the Service to be kept informed of actions that either minimize or avoid adverse effects or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION-CLOSING STATEMENT

This concludes formal consultation on the Twilight Campground development project. As required by 50 CFR 402.16, reinitiation of formal consultation is required 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 future communications regarding this project, please refer to consultation #2-21-93-F-457. If you have any questions or would like to discuss any part of this biological opinion, please contact Britta Muiznieks or Bruce Palmer.

Sincerely,



Sam F. Spiller
State Supervisor

Mr. J.M. Borens, Jr.

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cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (AES)
Regional Forester, U.S. Forest Service, Albuquerque, NM
State Supervisor, Fish and Wildlife Service, Albuquerque, NM
Supervisor, Pinetop Fishery Resources Office, Fish and Wildlife Service, Pinetop, AZ
District Ranger, Safford Ranger District, Safford, AZ

LITERATURE CITED

- Ganey, J.L. and R.P. Balda. 1989. Distribution and habitat use of Mexican spotted owls in Arizona. *Condor* 91:355-361.
- U.S. Department of the Interior, Fish and Wildlife Service. 1995. Draft recovery plan for the Mexican spotted owl (*Strix occidentalis lucida*). 646 pp.