

**United States Department of the Interior**  
**U.S. Fish and Wildlife Service**  
**2321 West Royal Palm Road, Suite 103**  
**Phoenix, Arizona 85021-4951**  
**Telephone: (602) 242-0210 FAX: (602) 242-2513**

In Reply Refer To:

AESO/SE  
22410-2005-F-0650  
02-21-98-F-0286

September 7, 2007

Ms. Jeanine Derby  
Forest Supervisor  
Coronado National Forest  
300 West Congress, 6th Floor  
Tucson, Arizona 85701

Dear Ms. Derby:

Thank you for your request to reinitiate 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), on the Biological Opinion (BO) for the Johnson Peak Fire Management Plan in the Chiricahua Mountains north of Douglas, Arizona, dated November 16, 1999, and amended March 22, 2001. Your request was dated and received by us on January 5, 2007. You have amended the proposed action to include four revisions from the original plan as described in your December 22, 2006, Biological Assessment. The amended proposed action may affect the threatened Mexican spotted owl (*Strix occidentalis lucida*, MSO) and its critical habitat. You also determined that the amendments to the proposed action will have no further effects on the endangered Yaqui chub (*Gila purpurea*) that were discussed in the aforementioned BO.

The November 16, 1999, BO included concurrences with your determinations that the proposed action was not likely to adversely affect the endangered lesser long-nosed bat (*Leptonycteris curasoaw yerbabuena*), the endangered jaguar (*Panthera onca*), and the endangered Mexican gray wolf (*Canis lupus baileyi*). We have determined that your current changes in the proposed action will have no additional effects on these species.

This reinitiated BO is based on information provided in your December 22, 2006, Biological Assessment; electronic mail of March 15, 2007, from Tom Skinner; and other sources of information. Literature cited in this biological opinion is not a complete bibliography of all literature available on the species of concern or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

## CONSULTATION HISTORY

The November 16, 1999, BO contains the consultation history for all events prior to and including that BO. The following details the history of the consultation from that date forward:

- July 24, 2000: We received your July 21, 2000, request for reinitiation of consultation, which outlined the project modifications and effects to listed species. Five modifications were proposed: (1) conduct prescribed fire operations within multiple burn blocks within the higher elevations, (2) change the timing of the prescribed fires from December through February to October through March, (3) prescribed fire fuel moisture rating ranges for all fuel categories were revised, (4) current MSO occupancy data and microhabitat plots data would be extrapolated from the first 250-acre treatment to burn blocks one, two, and three (high elevation burn blocks) rather than conducting pre- and post-monitoring for MSO, and (5) a qualified Prescribed Burn Monitor would only be present during initial prescribed fire ignitions, and be allowed to leave the site if operations showed normal and typical fire behaviors within prescription.
- March 22, 2001: We provided a reinitiated, non-jeopardy BO on the Johnson Peak Fire Management Plan.
- January 5, 2007: We received your request for reinitiation of consultation.
- February 26, 2007: We met with Tom Skinner and Ruben Morales, of your staff, to discuss the effects determination in the December 22, 2006 Biological Assessment.
- March 15, 2007: We received an electronic mail from Tom Skinner, of your staff, discussing the appropriate effects determination for the Biological Assessment.
- July 9, 2007: We requested a 60-day extension to complete the formal consultation.
- July 9, 2007: We received an electronic mail concurrence for the 60-day extension of formal consultation.
- August 31, 2007: We sent the draft biological opinion.
- September 6, 2007: We received your comments on the draft biological opinion.

## BIOLOGICAL OPINION

We refer the reader to the previous consultation documents for a description of proposed and ongoing fire management activities within the Johnson Peak Fire Management Plan area (see CONSULTATION HISTORY). Herein, we will only describe changes to the proposed action.

### **Changes to the Description of the Proposed Action**

Four revisions to the prescribed burning criteria of the original Johnson Peak Fire Management Plan are proposed. There will be no changes to the current fire management plan, as amended, relative to the proposed Wildland Fire Use (WFU). All existing conservation measures previously discussed in our 1999 BO and 2001 reinitiation will continue to be followed.

The proposed changes are as follows:

1. Plan goals and objectives are amended to add:

Objective #2: Develop a flexible fire management plan that will enable land managers to take advantage of the diverse climatic patterns within the project area in order to augment fuel treatment efforts.

2. The salient features of the proposed fire programs are amended to read:

- a) Prescribed fire may be conducted at all elevations, in all vegetation types, and in all burn blocks.
- b) The proposed burning blocks and order of burning of priority are: high-elevation vegetation types (Burn Blocks 1-3), mid-elevation vegetation types (Burn Blocks 4, 6, 7, and 9), and low-elevation vegetation types (Burn Blocks 5 and 8). Prior implementation of WFU or existing burning conditions may cause management to conduct prescribed fire in a different order.
- c) Depending on burning conditions, management area treated, and project logistics, it is anticipated that up to 5,000 acres may be burned annually.

## **MEXICAN SPOTTED OWL**

### **STATUS OF THE SPECIES**

The MSO was listed as a threatened species in 1993 (58 FR 14248). The primary threats to the species were cited as even-aged timber harvest and the threat of catastrophic wildfire, although grazing, recreation, and other land uses were also mentioned as possible factors influencing the MSO population. We appointed the MSO Recovery Team in 1993, which produced the Recovery Plan for the MSO (Recovery Plan) in 1995 (U.S. Fish and Wildlife Service 1995). The Recovery Plan is currently being revised and is scheduled to be out for public review in 2007. The 2004 final MSO critical habitat rule designated approximately 8.6 million acres of critical

habitat in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands (69 FR 53182). For a complete description of the Status of the Species, including critical habitat, refer to the June 8, 2007, Nuttall-Gibson Complex Wildfire Biological Opinion (02-21-04-M-0299).

## **ENVIRONMENTAL BASELINE**

The action area was originally described as the project area in the November 16, 1999, BO and the March 21, 2001 reinitiation. For this reinitiation we consider the action area to be the project area and one-half mile downstream of the project area along West Turkey Creek on the northern boundary of the project area. The environmental baseline is similar to that described in our November 16, 1999, BO and the March 21, 2001 reinitiation with the following exceptions:

(1) Critical habitat was designated within the project area in August 2004. Based on the presence of primary constituent elements of critical habitat, approximately 8,175 acres of critical habitat occurs within the action area. The critical habitat occurs primarily at mid-to higher elevation within the action area. A few mid- to lower elevation drainages along the southern edge of the action area contain smaller fragments of critical habitat.

(2) One prescribed fire has been conducted since 2001. The Johnson Peak Prescribed Burn was ignited on October 27, 2005. The initial accomplishment goal was the treatment of 1,500 to 2,000 acres with low-intensity fire. As time passed, the treatment efforts progressed as favorable burning conditions remained. Consequently, the affected acreage was allowed to increase as long as fire treatment management goals, objectives, and constraints were being met. Finally, the prescribed fire was declared out on January 22, 2006, due to increasing inclement weather. A total of 8,621 acres of “high elevation” fuels (dead, down, and live) were successfully treated. Post-fire monitoring via ground and aerial reconnaissance, videography, and subsequent mapping indicated that approximately 90-95 percent of the mapped area experienced low-severity burn effects as a result of low-intensity, backing surface fire, including within three MSO Protected Activity Centers (PACs). This area encompassed primarily pine and pine-oak vegetation types of diverse age classes.

It was also determined that less than 100 acres (approximately one percent) of the prescribed burn experienced high-intensity burning within the coniferous canopy that resulted in high-severity burn effects. High-severity burn effects often result in “torching” which is complete removal of trees and canopy. These 100 acres were not contiguous, but rather were scattered throughout the 8,621 acres within the burn perimeter. Five small isolated pockets of torching that appear to be only a few acres in size were observed in the Pole Bridge and Mormon Canyon PACs (#051010 and #050108, respectively). No torching occurred in the North Fork Rucker PAC (#050103). The 100-acre nest core areas of these PACs are not known, therefore it is not known if these pockets of torching occurred in or near the historical nesting and roosting areas for MSO. Within these scattered areas of high-intensity fire, it appeared that the fire burned down slope and ignited concentrated pockets of fuel. Once these concentrated fuels were ignited, flames reached into the canopy and were driven back up-slope through the tree crowns toward the ridgelines. Approximately 100 percent of the standing trees (mostly pine trees) were consumed in these small, isolated pockets. Assessment of the stands affected by high-intensity fire indicated that they were relatively dense stands of trees less than nine inches in diameter at

breast height (dbh). In adjacent stands of less tree density and more mature pine trees, the fire returned to the surface and burned with low-intensity, eventually extinguishing itself as remaining surface fuels were consumed. MSO monitoring data for the three PACs were provided in our November 1999 BO; however, no monitoring of the PACs has occurred since then. Based on the available data, the PACs were not regularly occupied and reproduction has not been documented; however, monitoring was not consistent prior to our November 1999 BO.

## **EFFECTS OF THE PROPOSED ACTION**

Effects to MSO from the proposed action will be similar to those described in the November 16, 1999, BO and March 22, 2001 reinitiation; however, an increase in the amount of prescribed fire may increase all fire related impacts over what was anticipated in those previous consultations.

Your first proposed modification is to add Objective #2 “develop a flexible fire management plan that will enable land managers to take advantage of the diverse climatic patterns within the project area in order to augment fuel treatment efforts.” This proposed amendment is a policy amendment and not an actual amendment to the proposed action. This policy amendment lays the groundwork for the changes to the proposed fire program actions below. In particular, the addition of this objective is necessary to provide the flexibility to conduct prescribed fires in the six burn blocks that currently do not allow prescribed fire. Additionally, Objective #2 allows shifting the priority of burning within the nine burn blocks as weather conditions and timing favor particular burn blocks or areas over other burn blocks. The effects of adding this objective will be discussed in detail below as part of the two proposed action amendments.

The second amendment changes priorities for fire in the nine burn blocks. Your original priority for prescribed fires in burn blocks included only the three high elevation burn blocks and focused on which order those three burn blocks would be burned. Your new priority states that the high elevation burn blocks (Blocks 1-3) are the highest priority with the mid-elevation burn blocks (Blocks 4, 6-7, and 9) being the next priority and the low-elevation burn blocks (Blocks 5 and 8) as the lowest priority. You also state that prior implementation of WFU or existing burning conditions may cause management to conduct prescribed fire in a different order. As described in the 1999 BO, burn blocks were delineated based on vegetation types and natural fire cycles within those vegetation types. Natural fire cycles refer to the intervals at which fire would return (through natural ignition) and sustain itself based on fuel availability within a particular vegetation type. Each vegetation type has its own characteristic fire cycle (return interval). The priority for burn blocks described above will be followed whenever possible; however, because natural fire cycles will be followed, the order of priority for burn blocks may need to be altered. For instance, if a WFU, wildfire, or prescribed fire has occurred recently (within the natural fire cycle) in burn blocks with priority to be burned next, then other burn blocks will be considered for prescribed fire or WFU. Similarly, if weather conditions do not permit a particular burn block or series of burn blocks with priority to have prescribed fires, then other burn blocks may be considered, as long as the prescribed fires are within the respective vegetation types’ natural fire cycle. Because natural fire cycles will be followed in all vegetation types, we do not anticipate any additional effects to the MSO as a result of the order in which prescribed fire is conducted beyond what have been discussed previously in our 1999 BO and our 2001 reinitiation.

The third amendment is to allow prescribed fire in all burn blocks, rather than just the three high-elevation burn blocks (Blocks 1-3). As a result, portions of two PACs will be subjected to prescribed fire that were not anticipated to be affected in previous consultations: North Fork Rucker PAC and the Pole Bridge PAC. Portions of these PACs are located in Burn Block 9 (North Fork Rucker) and Burn Blocks 4 and 7 (Pole Bridge). As previously mentioned, prescribed fires in these two burn blocks will occur during the cool season (October through March) and are expected to experience primarily low-intensity surface fires. Additionally, these fires will be ignited as backing fires, being allowed to back down hillsides from ridges or established fire lines. Although low-intensity surface fires are anticipated to occur with high frequency due to the cool-season timing and ignition timing, high severity fire behavior can, and typically does, occur resulting in torching of pockets of trees and accumulated fuels. Post-fire monitoring of the 2005/2006 Johnson Peak Prescribed Burn demonstrated this. Post-fire monitoring of that prescribed burn also revealed that not all of the 8,175 acres within the fire's perimeter burned. The 2005/2006 Johnson Peak Prescribed Burn resulted in a mosaic pattern with several patches of unburned vegetation and fuel. The addition of the portions of these two PACs will increase the acreage of MSO habitat and PACs subjected to prescribed fire and would likely increase the chances of MSO being subjected to smoke or being forced to fly from approaching flames; however, both portions of these two PACs located in Burn Blocks 4, 7, and 9 were included in the 2005/2006 Johnson Peak Prescribed Burn. As described above in the Environmental Baseline, the effects of torching were minimal in all three PACs, with very small pockets scattered across the landscape. The portion of the North Fork Rucker PAC that is in Burn Block 9 and was within the Johnson Peak Prescribed Burn perimeter did not experience any torching. Because most of these PACs were subjected to the 2005/2006 prescribed fire and natural fire cycles will be followed, it should be several years before they are subjected to prescribed fire again. Furthermore, based on post-fire monitoring of the 2005/2006 Johnson Peak Prescribed Burn, we do not anticipate the effects of the addition of prescribed fire to the six burn blocks and portions of MSO PACs not previously discussed to be beyond what we originally discussed in our 1999 BO and 2001 reinitiation in regard to WFU, which was proposed in these burn blocks in the original consultation.

Prescribed fires in these six burn blocks are anticipated to remove accumulated fuel and improve MSO habitat throughout the project area. Within these burn blocks, the 1,000-hour fuels are anticipated to be reduced by 5 to 40 percent while retaining a dead and down wood component that is still consistent with the MSO Recovery Plan regarding optimal MSO habitat. This is also consistent with our analysis in our November 1999 BO. It is possible that small pockets of accumulated fuel will burn with high intensity; however, this is anticipated to be minimal. As post-fire monitoring of the 2005/2006 Johnson Peak Prescribed Burn indicated, approximately 100 of 8,621 acres were subjected to high-intensity flames, resulting in torching of trees and canopy. These torching areas were distributed in small, generally isolated pockets throughout the 8,621-acre prescribed fire perimeter. Proposed prescribed fires are anticipated to reduce the risk of catastrophic fire to the MSO PACs and other MSO habitat that may occur within the project area.

The last amendment to the proposed action includes treating up to 5,000 acres annually, depending on burning conditions, management area treated, and project logistics. Our March

2001 amendment to the November 1999 BO describes treating up to 6,000 acres within the original prescribed fire area of Burn Blocks 1-3. As previously described, only portions of two PACs are located outside of the original prescribed fire area (Burn Blocks 1-3) in portions of Burn Blocks 4, 7, and 9. Less than 1,000 acres of MSO PACs (400-600 acres) are located outside of the original prescribed fire planning area, and most of this area recently burned in the 2005/2006 Johnson Peak Prescribed Burn. This area, including those portions of the two PACs previously described, will not be subjected to prescribed fire for several years because of the natural fire cycle. The proposal to burn 5,000 acres annually across any combination of the nine burn blocks is not anticipated to have any additional effects to MSO beyond what we have previously analyzed.

As previously described, all conservation measures described in our 1999 BO and 2001 reinitiation will continue to be followed. These conservation measures will further decrease the effects of the amendments to the proposed action on MSO and its critical habitat. Refer to the aforementioned BOs for a complete list of the conservation measures.

### **Effects to Critical Habitat**

Our November 1999 BO and March 2001 amendment did not discuss the effects of the proposed action or amendments to the proposed action on MSO critical habitat because it was not designated at the time. As a result we evaluate herein the effects of the entire Johnson Peak Fire Management Plan on MSO critical habitat.

### Effects to Primary Constituent Elements (PCEs) Related to Forest Structure

These PCEs 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 percent to 45 percent of which are large trees with dbh of 12 inches or more;
- A shade canopy created by the tree branches covering 40 percent or more of the ground; and,
- Large, dead trees (snags) with a dbh of at least 12 inches.

### Prescribed Fire

Prescribed fire is proposed on approximately 8,175 acres of critical habitat. Recent proposed amendments allow prescribed fire in any of the burn blocks, with a higher priority for fires in the higher elevation sites where the greatest acreage of critical habitat occurs, and where PCEs are most likely present. As described in the 1999 BO, we anticipate that prescribed fires through critical habitat will have primarily low-severity effects with some small percentage of flare-ups or torching in which tree stands are partially or entirely killed in moderate or high-severity fire effects. As was observed after the 2005/2006 Johnson Peak Prescribed Burn, low-intensity flames predominantly resulted in low-severity burn effects (90-95 percent), thus preserving the integrity of the PCEs for forest structure.

Of the 8,175 acres of MSO critical habitat throughout the project area (approximately 32,000 acres), approximately 4,214 acres occur in Burn Blocks 1-3, which are the high elevation areas and contain most of the MSO PACs. Outside of Burn Blocks 1-3, the remaining 3,961 acres of critical habitat are limited mostly to drainages and canyons that contain the PCEs of MSO critical habitat; however, limited critical habitat occurs in the high elevation areas adjacent to, and contiguous with, Burn Blocks 1-3. Having cool season prescribed fires (October through March) is anticipated to minimize the effects to the PCEs of MSO critical habitat. Cool season burns, as has been demonstrated by the 2005/2006 Johnson Peak Prescribed Burn, are anticipated to result in low-intensity flames that are predominantly surface fires that back down hillsides and result in low-severity fire effects. The cool season burns, like most prescribed fires, are anticipated to burn in a mosaic pattern leaving several patches of unburned vegetation on the surface. The range of tree species and size classes remained intact as a result of the Johnson Peak Prescribed Burn. No live trees greater than nine inches dbh were consumed by the prescribed fire. As the fires back down from control features (ridges, trails, etc.), it is possible that they will hit small pockets of accumulated fuels and reach the canopies in densely vegetated areas, resulting in torching. This is not anticipated to occur regularly, though, as previously demonstrated in the Johnson Peak Prescribed Burn. Most of the 100 acres of torching that occurred during the 2005/2006 prescribed burn was in small pockets of dense stands of immature trees (less than nine inches dbh) that are not considered PCEs of MSO critical habitat. Some large snags were also consumed by flare-ups and torching within those 100 acres; however, the prescribed fire also helped create new snags within those same isolated pockets of torching. Future prescribed fires conducted as cool season burns will likely have the same fire effects on the PCEs of forest structure as the Johnson Peak Prescribed Burn.

Similar to the effects of the MSO, burning 5,000 acres annually, especially during the cool season, is not anticipated to significantly reduce the PCEs of critical habitat. Critical habitat occurs in approximately 26 percent of the project area; however, it is not contiguous, as previously described. Furthermore, prescribed fires conducted following natural fire cycles are anticipated to improve the overall condition of critical habitat in the project area, as well as reducing the risk of catastrophic wildfires. Annual prescribed fires following the natural fire cycle will promote species and size (or age) class diversity, canopy cover, and the development of new snags.

#### Wildland Fire Use

First entry WFU events (first occurrence) in MSO PACs (which contain critical habitat and PCEs) will be at the low prescriptions described in our November 1999 BO. These parameters include up to four-foot flame lengths, 40-100 percent relative humidity, 40-60 degree Fahrenheit temperatures, up to 10 miles per hour 20-foot wind speed, and up to 15 percent moisture in the 1,000 hour fuels. Moderate and significant fire prescriptions will not be allowed in MSO PACs unless prescribed fire or the low prescription (described above) occurs in the PAC as a first entry. This element of the proposed action tends to minimize fire severity and associated effects to PACs and critical habitat.

WFU may be allowed in areas previously treated by prescribed fire. In those areas, fire severity is anticipated to be low due to prior fuel consumption. Our November 1999 BO states that WFU events threatening federally listed species' habitats will be reassessed to determine whether or not the WFU event is within the previously described prescription parameters. If the WFU remains in appropriate prescription (low prescription), you may decide to allow the fire to continue as a WFU fire. If the fire is not in prescription, you will immediately notify us of a wildfire situation, and suppression and management decisions will be the responsibility of the Incident Commander. Any fire suppression activities will be addressed through our emergency consultation process.

Because first entry of WFU in MSO habitats, including critical habitat, is expected to be at the low fire prescription (cool season-type fires), impacts to critical habitat are anticipated to be those associated with low-intensity surface fires. WFU in critical habitat can be expected to contribute to a loss of some PCEs of MSO critical habitat; however, this loss is not anticipated to have any additional effects beyond those described for MSO habitat in our 1999 BO. Furthermore, the 2005/2006 Johnson Peak Prescribed Burn occurred in most of the mid- and high-elevation critical habitat. The majority of the 8,175 acres of critical habitat within the project area was within that prescribed fire's boundaries and was subjected to mostly low-severity fire effects. Although WFU may be allowed to burn within this area again, as described above, the effects of such a WFU fire will likely be very minimal. WFU (first entry) and prescribed fires will be conducted under similar prescriptions; therefore, effects of WFU (first entry) are anticipated to be the similar to the effects of prescribed fire described above.

Second entry WFU events will be allowed under the moderate- to high-prescriptions only after prescribed fire or WFU first entry. The moderate- to high-prescriptions described in our 1999 BO will allow for more severe fire effects, which could lead to decreased canopy cover and a reduction in snags; however, second entry WFU will have reduced fuel loading due to prior burns. This reduced fuel loading will reduce the fire intensity, which will limit the amount of snags consumed and reduce the chances of fire entering the canopy. Second entry WFU events will also create more large snags. Moderate-to high prescription WFU events are not anticipated to reduce the overall diversity of tree species. These prescriptions may reduce the number of younger trees in the short-term; however, they will promote the older age class trees. Regeneration of trees will likely occur, as the openings created will allow for surviving younger trees to grow with less competition.

#### Effects to Primary Constituent Elements Related to the Maintenance of Adequate Prey Species

These PCEs 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.

## Prescribed Fire

Prescribed fires are anticipated to maintain the PCEs associated with the maintenance of adequate prey species for MSO. The cool season prescriptions, with low-intensity flames and low-severity fire effects, will likely consume some small diameter fallen trees and woody debris resulting in a short-term loss of these PCEs; however, unburned areas that result from the typical mosaic burn patterns will leave sufficient fallen trees and woody debris that provides cover for MSO prey. Additionally, the proposed prescribed burn plans will retain several of the larger (greater than six inches diameter) fallen trees and branches, thus retaining those PCEs intact. The isolated torching that may occur will also likely reduce the amount of fallen trees and woody debris in those areas; however, pockets of torching will also help create more fallen trees and woody debris as the trees fall over and lose branches in those areas. Prescribed fires are not anticipated to decrease the range of tree and plant species. Returning fire back into the ecosystem, through prescribed fire, will likely promote the diversity of tree and plant species as well as promote hardwood trees as excessive fuel loading and competition is decreased. Plant cover will likely be reduced in several areas immediately following prescribed fires; however, as previously noted, the fires are anticipated to burn in a mosaic pattern. These unburned patches of vegetation and fuel will leave adequate levels of plant cover that will, in turn, provide a seed bank to help regenerate vegetation in the nearby burned areas. Although there will be some short-term impacts to PCEs associated with maintenance of adequate prey, in the longer term the forests will be better protected from catastrophic fire, which has the potential to destroy MSO critical habitat.

## Wildland Fire Use

Similar to prescribed fires, WFU is anticipated to maintain the PCEs associated with the maintenance of adequate prey species for MSO. First entry WFU events, as described above, will likely consume some of the smaller diameter (less than six inches diameter) fallen trees, branches, and residual plant cover; however, WFU events are not anticipated to reduce diversity of the tree species. Most of the larger diameter fallen trees and branches are not anticipated to be completely consumed. Although some of these larger trees and branches may be consumed, most of them will likely be reduced in size, thus providing some of the smaller diameter woody debris that MSO prey need. Additionally, adequate levels of fallen trees, branches, and residual plant cover will be maintained as these WFU fires will also burn in a mosaic pattern like the prescribed fires will. Residual plant cover in these unburned patches of habitat will be sufficient to maintain fruit and seeds, thus allowing for regeneration.

Second entry WFU events will also maintain PCEs associated with the maintenance of adequate prey species. As described above, second entry WFU events will be allowed at the moderate- to high-prescriptions, although the fuel loading will be less. Moderate- to high- prescription fires will consume some of the fallen trees and other woody debris; however, these fires will also create more fallen trees and woody debris as trees and snags fall over and lose branches due to the fires. These moderate- to high-severity effects fires are not anticipated to reduce the diversity of tree species, and adequate levels of residual plant cover will also be maintained. Like the low-severity effects fires anticipated in first entry WFU events, WFU under the moderate- to high-prescriptions will burn in a mosaic pattern and include several areas of low-severity fire effects

due to the reduced fuel loading from previous burns. Although there will be some short-term impacts to PCEs associated with maintenance of adequate prey, in the longer term, the forests will be better protected from catastrophic fire that has the potential to destroy MSO critical habitat.

#### Extent of Effects to Critical Habitat

Approximately 8.6 million acres of critical habitat is designated in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands (69 FR 53182), and 16 critical habitat units located in the Basin and Range West Recovery Unit (RU) contain approximately 1.2 million acres of designated critical habitat. The action area for the Johnson Peak Fire Management Plan includes 0.68 percent of the critical habitat available in the Basin and Range West RU and approximately 0.10 percent of critical habitat available throughout the range of MSO. Thus, the extent of effects from the proposed action within the context of critical habitat in the recovery unit or rangewide is very small.

#### Effects of Conservation Measures on Critical Habitat

Similar to the effects to MSO, all conservation measures described in our 1999 BO and 2001 reinitiation will be followed for MSO critical habitat. These conservation measures will reduce the effects of the Johnson Peak Fire Plan on MSO critical habitat. Refer to the aforementioned BOs for a complete list of the conservation measures. Furthermore, WFU and prescribed fire conducted under natural fire cycles and with the conservation measures implemented are anticipated to greatly reduce the threat of catastrophic wildfire on MSO critical habitat, which is the major threat to critical habitat in our area.

### **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. Analysis of cumulative effects remains similar to that described in the previous BOs.

### **CONCLUSION**

After reviewing the anticipated effects of the proposed action for the Johnson Peak Fire Management Plan in the Chiricahua Mountains near Douglas, Arizona, the environmental baseline for the action area, the current status of the MSO, and the cumulative effects, we affirm our previous conclusion that the proposed action is not likely to jeopardize the continued existence of the MSO, and also conclude that the proposed action is not likely to result in adverse destruction or modification of MSO critical habitat. We note that this BO does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the Act to complete the following analysis with respect to critical habitat. We base these conclusions on our rationale from the original BOs and the following:

- 1) The addition of prescribed fire in the remaining five burn blocks will not significantly increase the effects to MSO.
- 2) The burn blocks where prescribed fire will be introduced have either been considered in formal consultation (Burn Blocks 1-3) or are largely outside of MSO PACs (Burn Blocks 4-9).
- 3) Post-fire monitoring of the 2005/2006 Johnson Peak Prescribed Burn indicates that most (90-95 percent) of the burn resulted in low-intensity surface fire, including in all three PACs that were within the burn perimeter.
- 4) All prescribed fires will continue to be conducted as cool season burns (October through March) with primarily low-severity fire effects.
- 5) Current conservation measures are sufficient to minimize the effects to MSO and critical habitat within the project area.
- 6) Prescribed fires in the lower elevation burn blocks are anticipated to reduce the risk of catastrophic wildfire reaching the MSO PACs and critical habitat, which are located mostly in the higher elevation burn blocks (Blocks 1-3).
- 7) Critical habitat affected represents 0.68 percent of the total critical habitat designated in the Basin and Range - West Recovery Unit and 0.10 percent of critical habitat throughout the range of the species. The proposed action is anticipated to result in primarily low-severity fire effects that will have some short-term adverse effects, but in the longer term will reduce the likelihood of critical habitat PCEs being destroyed in a catastrophic fire.

### **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 further 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 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**

The additional burn units where prescribed fire is proposed are mostly outside of MSO PACs and MSO critical habitat. Additionally, these new areas were proposed for WFU in the 1999 BO and 2001 amendment, and thus the potential for incidental take was analyzed in these areas in previous consultations. Therefore, we do not anticipate any additional incidental take of MSO as a result of the proposed action beyond what we anticipated in the November 16, 1999 BO. Anticipated incidental take, reasonable and prudent measures, and terms and conditions remain unchanged from our previous consultations on this project.

## **CONSERVATION RECOMMENDATIONS**

In addition to the conservation recommendations described in the November 16, 1999 BO, we recommend that you pursue the completion of a forest-wide consultation on WFU and wildfire-suppression activities.

## **YAQUI CHUB**

### **STATUS OF THE SPECIES**

The Yaqui chub was listed as an endangered species in 1984 and critical habitat was designated as “all aquatic habitat on the San Bernardino National Wildlife Refuge” (49 FR 34490). The status of the Yaqui chub has not changed significantly since our November 16, 1999 BO. Therefore, for a complete description of the Status of the Species, including critical habitat, refer to our November 16, 1999 Johnson Peak Fire Management Plan BO (02-21-98-F-0286).

### **ENVIRONMENTAL BASELINE**

The environmental baseline is similar to that described above for the MSO. Critical habitat for the Yaqui chub does not occur within the action area. No Yaqui chub are known to occur in the action area.

### **EFFECTS OF THE PROPOSED ACTION**

Effects to Yaqui chub from the proposed action will be similar to those described in the November 16, 1999 BO and the March 21, 2001 amendment. Neither Yaqui chub nor their critical habitat occur within the action area; therefore, we do not anticipate any additional effects to the Yaqui chub as a result of the proposed action.

### **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. Analysis of cumulative effects remains similar to that described in the previous BOs.

## **CONCLUSION**

After reviewing the anticipated effects of the proposed action, including current conservation measures for the Johnson Peak Fire Management Plan in the Chiricahua Mountains near Douglas, Arizona, the environmental baseline for the action area, the current status of the Yaqui chub, and the cumulative effects, we affirm our previous conclusion that the proposed action is neither likely to jeopardize the continued existence of the Yaqui chub, nor result in adverse modification of Yaqui chub critical habitat. We note that this BO does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the Act to complete the following analysis with respect to critical habitat. We base these conclusions on our rationale from the original BOs and the following:

- 1) Conservation measures described in the previous BO and subsequent amendment (particularly unburned buffers along West Turkey Creek) will continue to minimize adverse effects of the proposed Johnson Peak Fire Management Plan.
- 2) Most of the Turkey Creek watershed, where Yaqui chub occur, is located outside of the action area.
- 3) Critical habitat does not exist within the action area.

## **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 further 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 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**

Because the proposed actions are not anticipated to have any additional effects beyond what was discussed in the November 19, 1999 BO and March 22, 2001 amendment, our conclusion from previous consultations that no incidental take is anticipated stands. See our rationale in the November 19, 1999 BO and March 21, 2001 reinitiation for why incidental take is not reasonably certain to occur.

## **CONSERVATION RECOMMENDATIONS**

In addition to the conservation recommendations described in the November 16, 1999 BO, we recommend that you pursue the completion of a forest-wide consultation on WFU and wildfire-suppression activities.

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

Upon locating a dead, injured, or sick listed species initial notification must be made to the FWS's Law Enforcement Office, 2450 West Broadway Road #113, Mesa, Arizona [telephone: (480) 967-7900] within three working days of its finding. Written notification must be made within five calendar days and 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 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 animal species 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 prior to implementation of the action. Injured animals should be transported to a qualified veterinarian by a qualified biologist. Should any treated listed animal survive, the Service should be contacted regarding the final disposition of the animal.

## **REINITIATION NOTICE**

This concludes reinitiation of formal consultation on your proposal to revise the Johnson Peak Fire Management Plan in the Chiricahua Mountains north of Douglas. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been 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 a listed species or critical habitat 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. If conservation measures or other aspects of the proposed action are not implemented as anticipated herein, including schedules for implementation, reinitiation may be warranted pursuant to 50 CFR 402.16(b).

The FWS appreciates the Coronado National Forests' efforts and reinitiation of consultation to identify and minimize effects to listed species from the project. We encourage you to coordinate the review of this project with the Arizona Game and Fish Department. For further information please contact Brian Wooldridge (520) 670-6150 (x235) or Jim Rorabaugh (x230) of my staff.

Please refer to consultation number 22410-2005-F-0650, in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle  
Field Supervisor

cc: Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ (Attn: Doug Duncan)  
Assistant Field Supervisor, Fish and Wildlife Service, Flagstaff, AZ (Attn: Shaula Hedwall)  
District Ranger, Douglas Ranger District, Douglas, AZ

Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ

#### **Literature Cited**

U.S. Fish and Wildlife Service. 1995. Recovery Plan for the Mexican Spotted Owl.  
Albuquerque, New Mexico.

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