



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

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Cons. # 02ENNM00-2016-I-0252

Maria T. Garcia, Forest Supervisor
Santa Fe National Forest
11 Forest Lane
Santa Fe, New Mexico 87508

Dear Ms. Garcia:

This responds to your January 21, 2016, email and biological assessment (BA) requesting concurrence for the proposal to protect and improve habitat conditions for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) (jumping mouse) within the San Diego and Cebolla San Antonio Allotments, Jemez Ranger District, Santa Fe National Forest. The BA evaluates the potential effects on the jumping mouse and its proposed critical habitat; the Jemez Mountains salamander (*Plethodon neomexicanus*) (salamander) and its critical habitat; and the Mexican spotted owl (*Strix occidentalis lucida*) (MSO) and its critical habitat pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. § 1531 et seq.). You requested concurrence with your determinations that the proposed action “may affect, is not likely to adversely affect” the jumping mouse, the salamander and its critical habitat, and the MSO and its critical habitat. You also requested concurrence with your determinations that the proposed action is “not likely to adversely modify” proposed critical habitat for the jumping mouse and “may affect, is not likely to adversely affect” critical habitat for the jumping mouse if the designation is finalized.

The Jemez Ranger District is proposing to protect jumping mouse occupied habitat and proposed critical habitat from Forest Service regulated use. On the San Diego Allotment, occupied jumping mouse habitat would be protected by a Forest closure order on 228 acres. The closure order will prohibit conducting any activity or entering the areas encompassing “occupied habitat” for the endangered jumping mouse, except those activities identified in the Forest Closure Order as being exempt. In addition, a permanent pipe fence would be constructed around the perimeter of occupied habitat. This fence would be in the same locations where temporary barbed wire enclosures are currently and include an additional 5.5 acres between the Lake Fork Corral and the large enclosure where Forest Road 376 crosses the Rio Cebolla. Approximately 5 miles of fence would be constructed on both Schoolhouse and Lake Fork Mesas. Lake Fork Corral, in the Lake Fork Pasture, would also be rebuilt.

In the Cebolla San Antonio Allotment, approximately one mile of fence would be constructed off of NM State Highway 4 and across NM State Highway 126. In addition, 4 miles of fence within the Road and Barley pastures on the east side of the Cebolla Riparian pasture will be installed and a cross-fence just north of proposed jumping mouse critical habitat in the Cebolla riparian

pasture. Two Cattle guards would also be installed along this fence where it crosses Forest Roads 105 and CFF 199.

Based on information contained the BA, we find that your proposed action will have insignificant and discountable effects to the jumping mouse and its proposed critical habitat, the MSO and its critical habitat, and the salamander and its critical habitat,. The proposed action and our rationale are further detailed below. Importantly, the installation of new fences may cause indirect adverse effects from ongoing livestock grazing on the salamander. The change in livestock usage and potential indirect effects on the salamander and its critical habitat are currently being analyzed in a related biological opinion for ongoing grazing, which will be completed prior to 2016 livestock grazing season.

San Diego and Cebolla/San Antonio Allotments

The San Diego Allotment includes approximately 102,687 acres with flat mesa tops dissected by deep canyons. The elevations range from 5,800 to 9,100 feet. General topography and vegetative components of the allotments consist of rolling hills, steep canyons, mesas, piñon juniper woodland, ponderosa pine, gamble oak, mixed conifer, riparian areas, streams, creeks, rivers, high elevation spruce fir, and alpine tundra. Areas suitable for livestock grazing include grassland stringers and swales, open ponderosa pine forest, mixed conifer timber harvest areas and riparian corridors along the Rio Cebolla and Rio Guadalupe.

The Cebolla/San Antonio Allotment is approximately 26,107 acres with elevations that range from 7,600 feet to 9,800 feet. The allotment is dominated by ponderosa pine and mixed conifer forest with some blue spruce present in cool air drainages and north aspects. Areas suitable for livestock grazing include grassland stringers and swales, open ponderosa pine forests, mixed conifer timber harvest areas and riparian areas along the Rio Cebolla and Rio San Antonio.

Currently, the jumping mouse, MSO, and salamander are known to occur within the San Diego and Cebolla/San Antonio Allotments. Occupied habitat for the jumping mouse occurs along the Rio Cebolla within the San Diego Allotment and San Antonio within the Cebolla/San Antonio Allotment. Targeted surveys for the jumping mouse in 2005 and 2006 documented individuals within two distinct areas, along the Rio Cebolla and San Antonio Creek (Frey 2005). The known occupied sites in the Jemez Mountains located since 2005 are found on Forest Service, state, and private lands. Currently, 222 acres of occupied habitat is temporarily protected under a Forest Closure order, and 83 acres of that excluded by fence.

In addition, the San Diego Allotment has approximately six linear miles of proposed jumping mouse critical habitat, located, along the Rio Cebolla. Proposed jumping mouse critical habitat runs from the confluence of the Rio Cebolla at Porter along FR 376 in portion, to Fenton Lake State Park. The Cebolla/San Antonio Allotment has two distinct sections of proposed jumping mouse critical habitat; located on the east and west sides of the allotment. The first section is approximately seven linear miles following the reach of the San Antonio Creek, from the San Antonio Campground to the Valles Caldera National Preserve boundary. The second section is approximately six linear miles located along the Rio Cebolla, from Fenton Lake State Park to

above Hay Canyon in the Upper Rio Cebolla Canyon. Both sections include occupied and unoccupied jumping mouse habitat.

Further, the San Diego allotment contains critical habitat for the MSO, predominantly covering the mid to west side of the allotment and high quality foraging habitat within the Cebolla Riparian pasture. In addition, it has 6 Protected Activity Centers (PACs), 5 of them positive for MSO occurrence in 2015. The nearest PAC to the project areas is Lake Fork and it is between 0.5 to 2.5 miles away. In addition, the 83 acres of fenced and protected jumping mouse occupied habitat within the Cebolla riparian pasture also contains MSO critical habitat.

The Cebolla/San Antonio Allotment contains critical habitat for the MSO, 10 PACs and high quality foraging habitat is expected to exist within the Cebolla riparian pasture. MSO surveys for these PACs were completed in 2013 and only 2 were positive for MSO occurrence. Although critical habitat is not designated in the San Antonio riparian pasture area, it does have high quality foraging habitat and it is adjacent to established MSO PACs.

At the scale of this analysis, critical habitat for the salamander predominantly covers the Cebolla/San Antonio Allotment. This allotment also has 17,351 acres of occupied habitat and 275 acres of high probability occupancy. The San Diego Allotment has only 28 acres of critical habitat, but it has 1,196 acres of occupied habitat and 8,530 acres of high probability occupancy for the salamander.

Conservation (Protective) Measures

- 1) With the exception of the two cattle guards and temporary electric fence, project activities within jumping mouse, MSO or salamander habitat will not occur during the below times:
 - Jumping mouse habitat: Active Season: June 1st through October 15th (electric fence will be installed prior to June 1)
 - MSO habitat: Breeding Season: March 1st through August 31st
 - Salamander habitat: Rainy/Active Season: July 1st through September 15 (June 15 through October 30, is the usual, but fencing would be difficult to complete after October 30th)
- 2) All permanent fences will be wildlife friendly using New Mexico Game and Fish design recommendations.
- 3) For the temporary electric fence; the least invasive methods and route will be taken to greatly limit species and habitat disturbance. Fence placement and associated activities will require site-specific clearance from the District Biologist prior to installation.
- 4) Rebuilding and/or relocating the Lake Fork Corral and associated activities will require site-specific clearance from the District Biologist prior to installation.

- 5) No cutting of trees > 9 inch diameter at breast height (dbh) will occur, which will limit the amount of habitat disturbance.
- 6) Trees that lean away or do not pose an installation, maintenance and/or safety issue will not be cut.
- 7) The tops of fallen trees will be lopped, scattered and/or piled around the fence path. Logs and woody debris will be left on-site.
- 8) During fence installations, crews will limit the amount of ground disturbance of rocks, bark, moss mats, woody debris and decaying stumps and logs to the greatest extent possible.
- 9) General habitat elements for all species will be monitored throughout project implementation.

Jumping Mouse

The proposed action is expected to have insignificant and discountable direct and/or indirect effects on the jumping mouse and its proposed critical habitat. Project activities will protect occupied habitat and most of the proposed critical habitat within the San Diego and Cebolla/San Antonio Allotments. The closure order on 228 acres will prohibit conducting any activity or entering the areas encompassing "occupied habitat" for the jumping mouse, except those activities identified in the Forest Closure Order as being exempt. The closure order will exclude most activity including, but not limited to, livestock grazing and unregulated recreation. This will allow the continued protection of the jumping mouse and the restoration and maintenance of habitat. Initially, to protect the jumping mouse and proposed critical habitat, the project proposes to install an electric fence where permanent fences are proposed, to allow livestock to enter on to the allotments in 2016 and concurrently provide protection until permanent fences can be constructed. The electric fence will use thin composite or fiberglass posts with electric tape or smooth wire and solar operated power sources. Installation will occur in late spring (snowmelt dependent) and prior to the jumping mouse active season (June through September). Therefore, no direct effects are expected. Indirectly the installation of this fence could cause insignificant trampling of residual vegetation and primary constituent elements (PCEs) of proposed critical habitat. The proposed action of protecting the 5.5 acre site adjacent to the current enclosure on the lower Rio Cebolla will assist in the protection and maintenance of suitable and likely occupied habitat.

We do not anticipate any direct effects to the jumping mouse or its proposed critical habitat from the removal of existing barbed wire fences. These activities are proposed to occur prior to the active season of the jumping mouse. Removal of fences may trample an insignificant and discountable amount of residual vegetation and PCEs of proposed critical habitat around the perimeter of the enclosures.

Most of the approximately 10 miles of fence that is proposed to be constructed will not occur in jumping mouse habitat. One small section of proposed fencing will attach to the east and west

sides of the Lake Fork Mesa enclosure. Moreover, a pipe fence will be constructed along the lower Rio Cebolla during the inactive season of the jumping mouse. Construction will require the use of a skid steer, mobile welding truck, and hand tools and will likely cause an insignificant amount of soil compaction and trampling or alteration of residual vegetation and some of the PCEs of proposed critical habitat. These potential temporary effects are not expected to adversely affect the jumping mouse or its proposed critical habitat. The installation of fences will provide for the protection of jumping mouse habitat that will assist in the recovery of the species and promote the development and maintenance of suitable habitat.

Forest Service personnel will perform compliance checks regularly throughout the 2016 grazing season to ensure that no livestock are within excluded riparian areas. These checks will be documented in the project record and provided to the Service after the 2016 grazing season and every grazing season thereafter. If livestock are found within the excluded riparian areas, they will be immediately removed or reported to the permittee and removed within 24 hours. If livestock are found within the excluded riparian areas 2 or more times, the livestock will be removed for the remainder of the season and consultation will be reinitiated.

The proposed action will begin to restore and maintain tall dense herbaceous riparian vegetation. All direct and indirect effects to jumping mouse and its habitat are expected to be insignificant or discountable because no grazing will occur within the areas that are excluded and proposed as critical habitat. Because of frequent compliance monitoring, we do not expect any adverse effects to occur within these excluded areas. Moreover, the actions will ensure tall dense herbaceous riparian vegetation is likely to be present when the species emerges from hibernation to provide the necessary hiding and escape cover from potential predators, and the resources necessary to build nests and dens that provide adequate protection from the elements.

The proposed action will also assist in the maintenance and restoration of the proposed PCEs of jumping mouse critical habitat. This action will limit trampling of streambanks and alteration of dense herbaceous riparian vegetation that would have adverse effects on the species, especially because there is a strong tendency for livestock to congregate in riparian habitat. The proposed action will also ensure that sufficient food is available for jumping mice to accumulate fat reserves prior to hibernation. Although the proposed action will not fence all of the proposed jumping mouse critical habitat (e.g., in locations adjoining the occupied habitat enclosures south FR 376 and proposed critical habitat along San Antonio Creek), frequent monitoring will ensure these areas provide the necessary PCEs. If the PCEs are not being maintained, then consultation will be reinitiated. Limiting grazing within proposed critical habitat will also benefit the jumping mouse by increasing the amount of forage and cover for the species. The proposed action of protecting riparian habitat from livestock grazing will restore and maintain important hiding and escape cover from potential predators, which may lead to greater survival and increased dispersal capabilities.

Based on this information, we concur that the proposed action for the San Diego and Cebolla/San Antonio Allotments “may affect, is not likely to adversely affect” the jumping mouse. Moreover, we concur that the proposed action for the San Diego and Cebolla/San Antonio Allotments is “not likely to adversely modify” proposed critical habitat and “may affect, is not likely to adversely affect” critical habitat if the designation is finalized. Importantly, we note

that if there is any deviation from the proposed action (e.g., livestock within fenced riparian areas or grazing outside of the authorized season) or forage use monitoring in the uplands exceeds 35 percent utilization, reinitiation of consultation will be triggered.

Mexican Spotted Owl

Proposed activities will not occur within any designated Core area or protected activity center (PAC). However, activities will occur within critical habitat and foraging habitat, but are not expected to impact the PCEs related to maintaining adequate prey habitat. Implementation of the proposed action is expected to have insignificant and discountable effects to the MSO and its critical habitat.

The installation of electric fences will provide protection of riparian habitat until permanent fences can be constructed. Electric fences will be installed in late spring (snowmelt dependent) during the MSO breeding season. However, because of the minimally invasive installation materials and techniques, no adverse direct and indirect effects are expected. As part of the proposed action, small diameter (less than 9 inches dbh) trees may be removed to accommodate the fences; however a hand-saw will be used as much as possible. Chainsaws will only be used incidentally on an absolute as needed basis to reduce installation duration and increase efficiency. The installation of fences will cause an insignificant amount of disturbance that is not expected to disrupt breeding MSOs or result in habitat modification or adverse impacts to any PCEs. Moreover, electric fencing is not anticipated to result in flight obstruction or any potential for snagging. The construction of the pipe fence will require the use of a skid steer, mobile welding truck and hand tools; however, no adverse direct or indirect effects to the species or PCEs are anticipated. The protection of riparian vegetation from the impacts of recreation and livestock grazing will improve habitat for MSO prey species.

The installation of the cattle guards is not expected to affect the MSO and will not occur in critical habitat. The location for the rebuild of Lake Fork Corral has not yet been determined, but it will occur in the Lake Fork Pasture at an agreed upon location that greatly limits the disturbance of the MSO and its habitat. Therefore, effects from rebuilding the corral are expected to be insignificant. The construction of fence will involve the removal of some small diameter trees within a 20-foot-wide path over an approximate 10 mile length. Tree removal within critical habitat and PACs is not expected to result in direct and indirect effects that are adverse. These features will provide an added measure of protection and future enhancement of MSO riparian foraging habitat located in the canyon bottoms of the allotments.

Based on this information, we concur that the proposed action for the San Diego and Cebolla/San Antonio Allotments “may affect, is not likely to adversely affect” the MSO or its critical habitat.

Jemez Mountains Salamander

Implementation of the proposed action is not anticipated to result in adverse effects on the salamander or its habitat. Project activities will not occur during the salamander active/rainy season that runs essentially from July through mid-September. The temporary electric fence is not expected to result in any direct and or indirect effects to the species or its critical habitat

because construction will use minimally invasive installation materials and techniques. The installation is not expected to result in habitat modification or impacts to any PCEs will not result in ground disturbance or effects to the species.

No effect to JMS is expected from fence removal and construction of the pipe fence in the San Diego allotment. This area is riparian and contains no critical or occupied habitat for the salamander. The location for the rebuild of Lake Fork Corral has not yet been determined, but it will but it will not be rebuilt in salamander habitat. The Schoolhouse fences are proposed in potentially suitable habitat for the salamander, but any effects are expected to be insignificant and discountable.

We do not anticipate that fence construction, including the removal of small diameter trees, will have adverse effects on the salamander or its critical habitat. The final rule listing the salamander as endangered recognized that removal of trees less than 9 in dbh or shrub and brush removal (without the use of herbicides) to control vegetation, and without disturbing or compacting large areas of the surrounding soils, likely could be conducted without adverse effects to the salamander or its habitat. As part of the proposed action, small diameter (less than 9 inches dbh) trees may be removed to accommodate the fences; however a hand-saw will be used as much as possible. We believe the removal of small trees is consistent with our previous conclusion in the final rule that these kinds of actions are not adverse because the action would be conducted when the salamander is not active and involves no ground disturbance. Moreover, chainsaws will only be used incidentally on an absolute as needed basis to reduce installation duration and increase efficiency.

The proposed action is also unlikely to result in adverse effects to the PCEs of canopy cover, ground surface, or underground habitat. Fallen trees will be lopped and scattered within and around the fence path, which will increase the number a fallen trees and ground woody debris. Because only small diameter trees will be cut, we do not expect any reduction in canopy reduction or effects on soil moisture/temperature. No large existing logs will be removed and felled small diameter trees will also be left in place, which may increase microsites for salamanders. Fence construction will have no effect on the retention of large snags, down woody material, downed logs, and stumps. Moreover, the proposed action will: 1) implement seasonal tree size restrictions; 2) avoid disrupting existing down logs and stumps; 3) avoid disturbing rock piles or larger individual rocks; and 4) not use any heavy equipment that might disrupt specific PCEs.

Based on this information, we concur that the proposed action for the San Diego and Cebolla/San Antonio Allotments “may affect, is not likely to adversely affect” the salamander or its critical habitat.

This concludes section 7 consultation and conferencing regarding the proposed action. If monitoring or other information results in modification or the inability to complete all aspects of the proposed action, consultation should be reinitiated. Please contact the Service if: 1) future surveys detect listed, proposed or candidate species in habitats where they have not been

previously observed; 2) the proposed action changes or new information reveals effects of the proposal to listed species that have not been considered in this analysis; or 3) a new species is listed or critical habitat designated that may be affected by the action.

Thank you for your concern for endangered species and New Mexico's wildlife habitats. If you have any questions, please contact Eric Hein of my staff at the letterhead address or at (505) 761-4735.

Sincerely,

Wally Murphy
Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico