



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

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January 6, 2016

Cons. # 02ENNM00-2016-I-0224

Elizabeth A. Humphrey, District Ranger  
Sacramento Ranger District  
PO Box 288  
Cloudfcroft, NM 88317

Dear Ms. Humphrey:

This responds to your December 16, 2015, email and biological assessment (BA) requesting concurrence for the proposed livestock management grazing activities on the Bounds and Agua Chiquita Allotments, Sacramento Ranger District, Lincoln National Forest. The BA evaluates the potential effects on the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) (jumping mouse) and its proposed 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 determination that the proposed action “may affect, is not likely to adversely affect” the jumping mouse. You also requested concurrence with your determinations that the proposed action 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.

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 proposed action and our rationale are further detailed below.

The jumping mouse was proposed as an endangered species with critical habitat on June 20, 2013 (78 FR 37363; 78 FR 37328). On June 10, 2014, the jumping mouse was listed as endangered (79 FR 33119). In addition to the summary information provided below, we completed a species status assessment report for the jumping mouse in May 2014, which is hereby incorporated by reference. A Recovery Outline was also completed concurrent with the final rule listing the species as endangered.

The proposed primary constituent elements (PCEs) for jumping mouse critical habitat include: Within these areas, the PCEs of the physical or biological features essential to the conservation of the New Mexico meadow jumping mouse consist of the following: (i) riparian communities along rivers and streams, springs and wetlands, or canals and ditches characterized by one of two wetland vegetation community types: (A) persistent emergent herbaceous wetlands dominated by beaked sedge (*Carex rostrata*) or reed canarygrass (*Phalaris arundinacea*) alliances; or (B) scrub-shrub riparian areas that are dominated by willows (*Salix* spp.) or alders (*Alnus* spp.); and (ii) flowing water that provides saturated soils throughout the New Mexico meadow jumping mouse’s active season that supports tall (average stubble height of herbaceous vegetation of at

least 69 cm (27 inches) and dense herbaceous riparian vegetation (cover averaging at least 61 vertical cm (24 inches)) composed primarily of sedges (*Carex* spp. or *Schoenoplectus pungens*) and forbs, including, but not limited to one or more of the following associated species: spikerush (*Eleocharis macrostachya*), beaked sedge (*Carex rostrata*), reed canarygrass (*Phalaris arundinacea*), rushes (*Juncus* spp. and *Scirpus* spp.), and numerous species of grasses such as bluegrass (*Poa* spp.), slender wheatgrass (*Elymus trachycaulus*), brome (*Bromus* spp.), foxtail barley (*Hordeum jubatum*), or Japanese brome (*Bromus japonicas*), and forbs such as water hemlock (*Circuta douglasii*), field mint (*Mentha arvensis*), asters (*Aster* spp.), or cutleaf coneflower (*Rudbeckia laciniata*); and (iii) sufficient areas of 9 to 24 km (5.6 to 15 mi) along a stream, ditch, or canal that contain suitable or restorable habitat to support movements of individual New Mexico meadow jumping mice; and (iv) includes adjacent floodplain and upland areas extending approximately 100 m (330 ft) outward from the water's edge (as defined by the bankfull stage of streams).

### Bounds Allotment

The Bounds Allotment is located in the central part of the Sacramento Ranger District on the Lincoln National Forest. The allotment contains 906 acres of National Forest System Lands, with approximately 47 acres of proposed jumping mouse critical habitat. Elevations on the allotment range from 7,400 to 8,070 feet. Mixed conifer and small, inter-mixed mountain meadow grasslands dominate the vegetation on the allotment, with small areas of pinyon pine and juniper present in the lower elevations. A wetland lies immediately adjacent to private property along the Rio Peñasco. Presently, this area contains some wetland vegetation. The allotment contains a perennial spring and the Rio Peñasco flows through the middle. The Rio Peñasco runs through a small portion of the South Pasture of the Bounds Allotment.

Within the wetland there is a 200-foot long trench approximately 2-feet deep that runs from a culvert draining Cox Canyon under the Rio Peñasco Road to the Rio Peñasco stream channel. Currently, this area contains some wetland types of vegetation species (cattails) and some non-wetland species. The increase presence of non-wetland species indicates that the trench is drying out the site. It our understanding that the Forest developed a restoration plan for the wetland, which will be implemented in the near future and consulted on independent of the proposed action.

### Current Grazing Management:

- The National Forest System lands are authorized for two years (through March 2017) of dormant season grazing between October and March with up to 16 cow/calf pairs for six weeks (equals 24 Head Months). The pastures will be managed for up to 20 percent utilization within proposed jumping mouse critical habitat and 35 percent utilization outside of this area. Once the utilization level within the jumping mouse habitat has been met, livestock will be removed from the allotment. Utilization will be regularly measured by the Forest using the Ocular Estimate method. According to the Ocular Utilization method, up to 20 percent utilization in persistent emergent herbaceous wetlands is described as “rangeland that has the appearance of very light grazing. The herbaceous forage plants may be topped or slightly used and the current seedstalks and young plants are little disturbed”.

- Livestock will be managed by herding, salting, mineral supplementation, and water availability, to disperse livestock on the allotment and minimize livestock impacts in the grazed riparian area. There is no water available within the National Forest System lands and livestock are not expected to remain within proposed jumping mouse critical habitat.

Surveys were conducted specifically for the jumping mouse in 2009 and 2012 field seasons by the Sacramento Ranger District Wildlife Crew. In 2012, jumping mouse occupancy was documented within the area now proposed as critical habitat. In 2015, Forest Service personnel conducted a habitat assessment and an inventory to verify the amount of jumping mouse habitat.

#### Management Measures:

- Jumping mouse habitat monitoring protocols will be used to determine if agency action (e.g., fencing) is needed for additional protection of the species and proposed PCEs. This protocol will monitor a variety of attributes such as ground cover, stubble height, frequency, identification of vegetation species, soil moisture, etc. Forest Service personnel will measure utilization regularly (at least monthly) throughout the grazing season to ensure compliance. These data will be documented in the project record and reported to the Service annually after the end of each grazing season.

The permit authorizes grazing during the dormant (hibernation) season for the jumping mouse for up to 20 percent utilization in the South Pasture. Most (859 of 907 acres) of the South Pasture does not contain proposed jumping mouse critical habitat. The North Pasture that has jumping mouse habitat cannot be grazed due to steep terrain. We anticipate livestock use within the riparian vegetation on National Forest System lands be limited and not reach 20 percent utilization because there is no water within the immediate area, although the adjacent private property has water available. In addition, the National Forest System lands are within close proximity of the highway, which poses a risk to livestock from vehicle collisions.

The jumping mouse is a true hibernator, usually entering hibernation in September or October and emerging the following May or June. During the dormant season, jumping mice will be hibernating about 12 inches below ground in the adjacent uplands, likely at the base of shrubs or downed woody material, and are highly unlikely to be subjected to trampling from livestock. We also expect that any effects to the PCEs from the short duration, dormant season grazing will be minimized by frequent vegetation monitoring and implementation of any necessary additional protection.

For the last several years, this grazing strategy has maintained tall dense herbaceous riparian vegetation with adequate residual vegetation. All direct and indirect effects to jumping mouse and its habitat are expected to be insignificant or discountable. Additionally, the direct and indirect effects of this grazing strategy have resulted in insignificant or discountable effects to PCEs. Therefore, we anticipate that the proposed action will continue to maintain adequate PCEs for the jumping mouse to forage on a variety of forbs, grasses, sedges, and rushes when it emerges from hibernation. Because of frequent monitoring, we do not expect the loss of food resources will lead to starvation, lower reproductive success, or lower fat reserves for hibernation. Moreover, 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.

Based on this information we concur that the proposed action for the Bounds Allotment “may affect, is not likely to adversely affect” the jumping mouse. Moreover, we concur that the proposed action for the Bounds Allotment 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, if there is any deviation from the proposed action (e.g., livestock within the National Forest System lands outside of the authorized dormant season) or forage use monitoring shows a reduction of residual vegetation, that may indicate PCEs are not being met, reinitiation of consultation would be triggered.

### Agua Chiquita Allotment

The Agua Chiquita Allotment contains about 28,557 acres of National Forest System Lands and 1,527 acres of private land. Elevations on the allotment range from 7,600 feet to 9,220 feet. The allotment is comprised of the following vegetation types: 67 percent mixed-conifer, 14 percent ponderosa pine (*Pinus ponderosa*), 12 percent oak (*Quercus* spp.), and very minor components of aspen (*Populus* spp.), grassland, and pinyon-juniper. The mixed-conifer forest types are typically dominated by white fir, Douglas fir (*Pseudotsuga menziesii*), ponderosa pine, and Southwestern white pine (*Pinus strobiformis*) in the overstory, and Gambel oak (*Quercus gambelii*), quaking aspen (*Populus tremuloides*), and New Mexico locust (*Robinia neomexicana*) in the understory, along with various forbs and grasses. The ponderosa pine habitat is comprised primarily of ponderosa pine with two species of oak in the understory, and the lowland grasslands are comprised of blue gramma (*Bouteloua gracilis*), and sideoats gramma (*Bouteloua curtipendula*). Riparian vegetation can be found along seeps, springs and streams within the allotment that can vary based on annual precipitation.

### Current Grazing Management

- Livestock grazing is authorized for one year (through October 2016). Under the 2004 Decision Notice and Finding of No Significant Impact, the current Term Grazing Permit authorizes for up to 275 cow/calf pairs, between May 1 and October 31 (1,664 head months).
- The allotment administration includes a Term Private Land Permit for up to 60 cow/calf pairs between May 1 and October 31 (360 head months). A Term Private Land Permit is issued to grazing permittees who own unfenced private lands within a grazing allotment. A Term Private Land Permit requires the landowner to waive grazing management of these lands to the United States Government (FSH 2209.13, Chapter 10). This permit allows private land to be managed in conjunction with the public land portion of the allotment and additional permitted numbers can be authorized based on the capacity of the private lands.
- Current grazing on the allotment occurs during the summer season under a deferred rotational grazing system. The approximate use date for grazing in Agua Chiquita Pasture is May 1 through June 30<sup>th</sup>. Grazing Jim Lewis Pasture is from July 1 through October 31.

- Specific pasture shift dates are determined by forage utilization in the grazed pasture; livestock are rotated when the desired utilization level is reached. Each pasture will not exceed 35 percent utilization.

Barrel Spring and Sand Spring constitute the origin of much of the headwaters for Aqua Chiquita Creek. The majority of the riparian areas in this allotment are along the Aqua Chiquita Creek. Agua Chiquita Creek is a perennial stream that has intermittent stretches during dry periods. Along the creek, there are narrow and wide sections of the stream. Narrow incised sections have less of a floodplain and fewer riparian plants can become established. Where the channel becomes wider, secondary floodplains occur along with greater numbers of riparian plants. Saturated soils and/or herbaceous wetland vegetation are often not present and streambank erosion is found periodically along the channel, especially in narrow sections of the stream. Along these riparian corridors, a diverse mix of tall dense herbaceous vegetation (e.g., redtop, cutleaf coneflower, and sedges) can be found. The drier upland habitat that is found adjacent to the riparian vegetation is comprised of grasses, forbs, and shrubs. Upland habitat is bordered by mixed conifer. At the forest edge a mixture of downed logs, herbaceous vegetation and rocky substrate can be found.

In 2005, 2010, and 2012, jumping mice were found within a series of fenced livestock exclosures within Agua Chiquita Creek. Therefore, occupied and proposed jumping mouse critical habitat is found along the Agua Chiquita Creek.

#### Management Measures

- The Forest will continue to maintain riparian exclosures (25 acres) in occupied habitat.
- Livestock will be managed by herding, salting, mineral supplementation, water developments, and drift fencing to disperse livestock on the allotment and prevent grazing to riparian areas along the Agua Chiquita Creek. Fencing and water developments will prevent grazing of upland and riparian vegetation within occupied and proposed jumping mouse critical habitat. No livestock grazing will take place in the riparian pasture.
- No heavy equipment will be used for fence maintenance during the jumping mouse active season.
- Forest Service personnel will perform compliance checks regularly throughout the 2016 grazing season to ensure that no livestock are within riparian areas. These checks will be documented in the project record and provided to the Service after the 2016 grazing season. If livestock are found within riparian areas, they will be immediately removed or reported to the permittee and removed within 24 hours. If livestock are found within the riparian 2 or more times, the livestock will be removed from Agua Chiquita Pasture for the remainder of the season.

The Agua Chiquita pasture is the only pasture within the allotment that has occupied and proposed jumping mouse critical habitat. This pasture will be grazed from May/June through a deferred rotation system. The pasture is grazed for two months or until it meets up to 35 percent

utilization. All livestock will be moved to the Jim Lewis pasture by June 30<sup>th</sup> and will stay for four months, until they are hauled off of the Forest. Fencing along Agua Chiquita Creek with water developments in other locations throughout the allotment will prevent grazing in occupied and proposed jumping mouse critical habitat.

The jumping mouse is only active 3 or 4 months during the summer. The species is a true hibernator, usually entering hibernation in September or October and emerging the following May or June. Importantly, livestock grazing during the active season can cause a rapid loss of herbaceous cover and eliminate dense riparian herbaceous vegetation that is suitable jumping mouse habitat with these impacts evident in as short as 7 days from the start of grazing. Herbaceous vegetation is a food source and provides cover from predators for jumping mice. Grazing may reduce the amount of this food available to jumping mice just prior to hibernation, which can limit the accumulation of sufficient fat reserves. This period is critical to the species because it must enter hibernation with enough fat reserves to survive the winter and to successfully survive and breed the following spring.

To provide for a deferred rotation, a 12 to 16-foot wide passage in Agua Chiquita Creek will be provided to allow the permittee to push small groups of cows to the Jim Lewis Pasture at the end of June. The access will be controlled with gates for rapid passage to minimize disturbance and any adverse modification to PCEs. To further minimize impacts, the access lane will be placed in unoccupied proposed critical habitat that currently does not have all of the PCEs for the jumping mouse.

This one year grazing strategy 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 proposed as critical habitat. Because of frequent compliance monitoring, we do not expect any adverse effects to occur. Moreover, the management 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 within the Agua Chiquita Pasture will 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. Preventing grazing within proposed critical habitat will also benefit the jumping mouse by increasing the amount of forage and cover for the species. Importantly, data from a 2015 habitat assessment and inventory showed that fencing livestock out of occupied and proposed jumping mouse critical habitat assisted in the restoration and maintenance of jumping mouse habitat. The proposed action of protecting riparian habitat from any livestock grazing will restore and maintain important hiding and escape cover from potential predators, which may lead to greater survival and increased dispersal capabilities. The effects to the species and its habitat from activities related to

infrastructure maintenance (e.g., fence repair) and grazing of uplands outside of jumping mouse habitat are expected to be insignificant or discountable.

Based on this information, we concur that the proposed action for the Agua Chiquita Allotment “may affect, is not likely to adversely affect” the jumping mouse. Moreover, we concur that the proposed action for the Agua Chiquita Allotment 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, if there is any deviation from the proposed action (e.g., livestock within the Agua Chiquita Pasture outside of the authorized grazing season) or forage use monitoring in the uplands exceeds 35 percent utilization, reinitiation of consultation would be triggered.

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