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Comments submitted via email to comments-southwestern-lincoln-sacramento@fs.fed.us

U.S. Forest Service
c/o Elizabeth Humphrey, District Ranger
Sacramento Ranger District
4 Lost Lodge Road
Cloudcroft, NM 88317

RE: New Mexico Meadow Jumping Mouse Sacramento Environmental Assessment

Thank you for the opportunity to comment on the United States Forest Service (Forest Service) New Mexico Meadow Jumping Mouse (NMMJM) Habitat Improvement Projects Proposal on the Sacramento Grazing Allotment Draft Environmental Assessment (EA) dated June 2018. Founded in 1947, Defenders of Wildlife (Defenders) is a national conservation organization focused on wildlife and habitat conservation and the safeguarding of biodiversity. Defenders is encouraged by the draft EA's details and commends the Forest Service for its commitment to this endangered species. Please accept these comments on behalf of our 1.2 million members and supporters.

Defenders of Wildlife regularly comments on and participates in New Mexico meadow jumping mouse habitat improvement projects on federal lands. Defenders started this work in April of 2016. Defenders' staff prepare extensive, detailed input on jumping mouse habitat protection proposals from the Forest Service in the Southwest Region. Defenders' staff and volunteers have participated in on-the-ground projects on the Santa Fe National Forest including developing new sources of livestock water to remove grazing pressure from stream side habitat and building beaver dam analogues to facilitate re-establishment of mouse habitat along streams.

Section 2.2.2.1. Proposed Activities, Exclosure fencing comments

The Forest Service proposes exclosure fencing that “would be a combination of 4 strand barbed wire fencing, pipe fencing and eight-foot tall elk fencing” and that “areas fenced with barbed wire may be upgraded to pipe fencing over time as funding becomes available.”

Defenders strongly recommends wildlife-friendly fencing design. To minimize the chance of tangling, fences should be low enough for adult animals to jump over, high enough for wildlife to crawl under, and be highly visible for both ungulates and birds. The publication, “A Landowners Guide to Fences and Wildlife”¹, recommends:

- A top wire or rail preferably no more than 40" and a maximum of 42" above the ground;
- At least 12" between the top two wires;

¹ Paige, C. (2012). A Landowner's Guide to Fences and Wildlife: Practical Tips to make Your Fences Wildlife Friendly. Wyoming land Trust, Pinedale, WY, 52. Accessed 07/13/2018.
[file:///C:/Users/leaton/Downloads/A_Landowners_Guide_to_Fences_and_Wildlife%20\(1\).pdf](file:///C:/Users/leaton/Downloads/A_Landowners_Guide_to_Fences_and_Wildlife%20(1).pdf)

- A bottom wire or rail at least 16" and preferably 18" above the ground;
- Smooth wire or rail for the top, smooth wire on bottom;
- Preferably, no vertical stays. If used, consider stiff plastic or composite stays, or regularly maintain wire stays that are easily bent;
- Posts at 16.5-foot intervals;
- Gates, drop-downs, or other passages where wildlife concentrate and cross

These standards will control cattle in most situations and allow for easier wildlife passage. Similar guidelines are endorsed by several state Game and Fish departments. For example, the New Mexico Department of Game and Fish recommends for 4-strand fence, the top and bottom wires are best if smoothed, rather than barbed.² The Arizona Game and Fish Department recommends for boundary and pasture fencing the top wire and bottom wires should be 12 ½ gauge smooth wire.³ At a minimum, Defenders encourages the Forest Service to follow and apply these standards for permanent fencing.

The Forest Service proposes “approximately 4.5 miles of fencing would be constructed within Wills Canyon and would be located within T. 17 S, R 12 E Sections 20-22, 28, 29.” Section 30 is not included, although Figure 2 of Wills Canyon clearly shows critical habitat extends into that section. Defenders strongly recommends the Forest Service add permanent fencing to Section 30.

The Forest Service proposes “not all critical habitat would be fenced, the fencing would focus on areas known to be occupied by the NMMJM and areas that were previously fenced with temporary fencing that would improve habitat connectivity” and “fencing in Rio Peñasco would all be within an existing livestock trap”. This contradicts the standards and guidelines in the Forest Plan for Federal and State Threatened and Endangered Species and riparian habitats – to protect and manage critical habitat, and identify, protect and enhance existing and potential habitat (emphasis ours).⁴ Figure 3 of Rio Peñasco shows critical habitat exists in Sections 18, 13, 14 and 11. Instead, the Forest Service proposes to construct permanent fencing only if and when annual and seasonal livestock grazing is found a direct cause for further NMMJM habitat decline. Defenders recommends protecting larger areas of critical habitat as it helps improve NMMJM resiliency and protect NMMJM connectivity throughout the riparian habitat in the Rio Peñasco. The U.S. Fish and Wildlife Service’s NMMJM Recovery Outline released in June 2014 cites one of the main sources of habitat loss is grazing and the main factor for NMMJM extinction is loss of suitable habitat.⁵ The Outline’s threats assessment states “there has been a significant reduction in occupied localities likely

² New Mexico Department of Game and Fish. (2003). Recommendations for Constructing Wire Fences for Livestock in Big Game Habitats. July 2003. <http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Livestock-Wildlife-Fence-Guidelines.pdf>

³ Arizona Game and Fish Department. (2018). Guidelines for Wildlife Compatible Fencing. http://www.azgfd.gov/hgis/documents/110125_AGFD_fencing_guidelines.pdf

⁴ U.S. Forest Service. (2018). New Mexico Meadow Jumping Mouse Habitat Improvement Projects on the Sacramento Grazing Allotment, Draft Environmental Assessment, U.S. Forest Service, Lincoln National Park, Sacramento Ranger District. June 2018. https://www.fs.usda.gov/nfs/11558/www/nepa/106124_FSPLT3_4327808.pdf

⁵ U.S. Fish and Wildlife Service (2014). Recovery Outline: New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*). Albuquerque, NM: U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office. <https://www.fws.gov/southwest/es/NewMexico/documents/Recovery%20Outline%20New%20Mexico%20meadow%20jumping%20mouse.pdf>

due to cumulative habitat loss and fragmentation across the range of the jumping mouse.”⁶ Fragmentation of habitat is puts NMMJM at risk for extinction. Connectivity of habitat is an opportunity for recolonization of the NMMJM.⁷ The construction of permanent fencing will “ensure the species viability, it’s habitat must be protected and restored.”⁸

Section 2.2.2.1. Proposed Activities, Livestock Facilities and Waters comments

The Forest Service proposes water for troughs and storages “if no other water source was available other than directly from a stream, and a diversion was not possible; water lanes would be added to traps to provide water for livestock.” Allowing livestock access to the stream channel can result in degradation of the riparian habitat including destabilizing the streambank, trampling and grazing of vegetation and impairing water quality. Water/access lanes can exist for livestock to cross if properly placed where the crossings have the least impact along the stream’s path.

The Forest Service proposes participation from the grazing permit holder and his/her preference will be taken into consideration during water development and handling facility construction. Defenders asks the Forest Service to publish information on the final locations for water developments and facility placements, and final design specifications for public comment.

Throughout the project, Defenders recommends the Forest Service recruit erosion control specialists, riparian recovery experts and environmental professionals to provide best practice recommendations for construction in riparian habitats. Building construction could harm riparian health, designated NMMJM critical habitat and the NMMJM, itself.

2.3.2. Monitoring Requirements comments

With respect to monitoring project implementation and effectiveness, the Forest Service proposes the permittee ensures guidelines are not exceeded. Defenders advices the Forest Service be ultimately responsible for monitoring and verify conditions on the ground meet the guidelines.

2.3.1.2 Project Design Features – Threatened, Endangered, and Region 3 Sensitive Species.

The Forest Service proposes “no ground disturbing work will take place June 1st through September 30th: Defenders commends the Forest Service on selecting this date range as it is when the NMMJM most is most vulnerable, e.g. nesting and raising young.

The Forest Service proposes “survey in unoccupied NMMJM Critical Habitat prior to any ground disturbing work being implemented” and “survey for NMMJM in historical or areas with potential habitat prior to project implementation.” Defenders endorses surveys prior to work being done.

⁶ U.S. Fish and Wildlife Service (2014). Recovery Outline: New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*). Albuquerque, NM: U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office. <https://www.fws.gov/southwest/es/NewMexico/documents/Recovery%20Outline%20New%20Mexico%20meadow%20jumping%20mouse.pdf>

⁷ Frey, J.K. (2017). Landscape Scale and Microhabitat of the Endangered New Mexico Meadow Jumping Mouse in the White Mountains, Arizona. *Journal of Fish and Wildlife Management*, 8(1), 39- 58. <http://fwspubs.org/doi/pdf/10.3996/062016-JFWM-043>

⁸ U.S. Fish and Wildlife Service (2014). Recovery Outline: New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*). Albuquerque, NM: U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office. <https://www.fws.gov/southwest/es/NewMexico/documents/Recovery%20Outline%20New%20Mexico%20meadow%20jumping%20mouse.pdf>

Defenders recommends the Forest Service recruit U.S. Fish and Wildlife biologists and other environmental experts with extensive knowledge and experience in NMMJM species and their habitat requirements.

3.4. Threatened and Endangered Species, Effects of Alternative 2 (Proposed Action), New Mexico Meadow Jumping Mouse

The draft EA states “mortality is unlikely from work with the exception of working in late July through the middle of August.” This contradicts what the Forest Service proposed under the section, 2.3.1.2. Project Design Features which states proposes “no ground disturbing work will take place June 1st through September 30th. The Forest Service is required under the Endangered Species Act (ESA) to ensure that any activity will not jeopardize the continued survival and recovery of the listed species. Defenders demands the Forest Service postpone construction activities in late July through the middle of August due to the high probability NMMJM are nesting and young are present. At a minimum, survey the area before starting work.

3.10. Cumulative Effects. Past Present and Reasonably Foreseeable Future Actions.

Two projects listed in the draft EA are of concern to Defenders – High Altitude Mountain Environment Training Strategy (HAMETS) Helicopter Operations Project and Otero County Electric Cooperative Power Line Improvement.

The NMMJM is closely associated with riparian ecosystems. To protect and improve the riparian habitat the NMMJM relies upon, activities such as grazing, camping and recreational vehicle use should be excluded from the stream, on and along the streambanks, recreational vehicles should be routed to pre-existing roads and trails. Highly degraded areas can be treated and recovered using proven restoration and management techniques such as planting native seedlings.⁹ Preventing cattle grazing in riparian zones through exclusion fencing can allow riparian vegetation to rapidly increase in robustness and cover, and shift to a more natural community composition.¹⁰

The Lincoln National Forest must provide for conservation of listed species in its forest plan implementation. The Endangered Species Act (ESA) mandates under § 7(a)(1) that federal agencies carry out programs that further the recovery of endangered and threatened species in consultation with the appropriate consulting agencies, in this case the U.S. Fish and Wildlife Service.

⁹ Stromberg, J.C. (1993), "Frémont Cottonwood-Goosdodg Willow Riparian Forests: A Review of Their Ecology, Threats, and Recovery Potential", Journal of the Arizona-Nevada Academy of Science, 27: 97–110

¹⁰ Sarr, D.A. (2002), "Riparian livestock exclosure research in the western United States: A critique and some recommendations", Environmental Management, 30 (4): 516–526, doi:10.1007/s00267-002-2608-8

In conclusion, Defenders believes in the inherent values of wildlife and their habitats. We envision diverse wildlife populations in North America are secure and thriving, sustained by a network of healthy lands and waters. The Forest Service NMMJM Habitat Improvement Projects Proposal Draft EA upholds these values. Through understanding the benefits of a healthy riparian ecosystem to protecting the habitat the NMMJM relies upon (riparian habitat) to collaboration with permit holders and the public - all will contribute to saving the NMMJM from extinction. Thank you again for the opportunity to comment on the draft EA.

Sincerely,



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