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VIA CERTIFIED MAIL AND E-MAIL

May 31, 2024

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Dear Mses. Haaland, Williams, Lueders, and Martin and Mssers. Vilsack, Moore and Freeman,

RE: Sixty-Day Notice of Endangered Species Act Violations regarding (1) U.S. Fish and Wildlife Service's December 29, 2023, Biological Opinion for the Reinitiation for Ongoing Livestock Management on the Sacramento and Dry Canyon Allotments, and (2) U.S. Forest Service's reliance on this Biological Opinion on the Lincoln National Forest and independent violations of law.

The U.S. Secretary of the Interior ("Secretary"), U.S. Fish and Wildlife Service ("FWS"), the U.S. Secretary of Agriculture, and the U.S. Forest Service ("the Forest Service") are hereby notified by the Center for Biological Diversity ("Center") and Maricopa Audubon Society ("Maricopa Audubon") of our intention to file suit 60 days after the filing of this Notice for unremedied

violations of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544, its implementing regulations, 50 C.F.R. §§ 402.01-402.17, and the Administrative Procedure Act ("APA"), 5 U.S.C. § 706.

We file this Notice in connection with (1) FWS's December 29, 2023, Biological Opinion ("2023 Sacramento BiOp") authorizing the Forest Service to allow continued grazing in the Sacramento Allotment of the Lincoln National Forest; and (2) the Forest Service's independent violation in relying on these unlawful and arbitrary consultation documents and the Forest Service's violations of law in allowing continued grazing in the Sacramento Allotment.

In this Notice, the Center and Maricopa Audubon provide pertinent background information, and identify the legal violations that we intend to challenge in federal court should FWS and the Forest Service fail to correct these violations within sixty (60) days. Because time is of the essence in protecting the sole surviving, isolated, genetically distinct and besieged population of New Mexico Meadow Jumping Mouse ("NMMJM") in the Sacramento Mountains and on the Lincoln National Forest, and because NMMJM is endangered throughout its range, we are not willing to delay filing a lawsuit should the agencies fail to correct these ongoing legal violations; however, we will continue to be available to discuss these matters at your convenience.

LEGAL BACKGROUND

The ESA "represent[s] the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). Section 9 of the ESA prohibits any "person" from "taking" any member of an endangered or threatened species without authorization from the FWS. 16 U.S.C. § 1538(a).[1]

Pursuant to Section 7 of the ESA, before undertaking any action that may have direct or indirect effects on any listed species, an action agency must engage in consultation with the FWS in order to evaluate the impact of the proposed action. *See id.* § 1536(a). The purpose of consultation is to ensure that the action at issue "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated critical] habitat of such species." 16 U.S.C. § 1536(a)(2). As defined by the ESA's implementing regulations, an action will cause jeopardy to a listed species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. Destruction or adverse modification of critical habitat is defined as "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species." *Id.*

The evaluation of the effects of the proposed action on listed species during consultation must use "the best scientific . . . data available." 16 U.S.C. § 1536(a)(2). Moreover, after the initiation of consultation, the action agency is prohibited from making "any irreversible or irretrievable

[1] The term "take" is defined broadly to include "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." *Id.* § 1532(19). The FWS has further defined "harass" to include "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3. In addition, "harm" is defined to "include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." *Id.*

commitment[s] of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures." *Id.* § 1536(d).

Consultation under Section 7 may be "formal" or "informal" in nature. Informal consultation is "an optional process" consisting of all correspondence between the action agency and the FWS, which is designed to assist the action agency, rather than the FWS, in determining whether formal consultation is required. *See* 50 C.F.R. § 402.02. During an informal consultation, the action agency requests information from the FWS as to whether any listed species may be present in the action area. If listed species may be present, the action agency is required by Section 7(c) of the ESA to prepare and submit to the FWS a "biological assessment" that evaluates the potential effects of the action on listed species and critical habitat. 16 U.S.C. § 1536(c)(1). As part of the biological assessment, the action agency must make a finding as to whether the proposed action may affect listed species and submit the biological assessment to the FWS for review and potential concurrence with its finding. *Id.* If the action agency finds that the proposed action "may affect, but is not likely to adversely affect" any listed species or critical habitat and the FWS concurs with this finding, then the informal consultation process is terminated. 50 C.F.R. § 402.14(b).

If, on the other hand, the action agency finds that the proposed action "may affect" listed species or critical habitat, then the action agency must undertake formal consultation. 50 C.F.R. § 402.14; *see also* FWS, Endangered Species Consultation Handbook ("Consultation Handbook") at 3-13 (1998). The result of formal consultation is the preparation of a biological opinion ("BiOp") by the FWS, which provides the FWS's analysis of the best available scientific data on the pre-existing status of the species and how it would be affected by the proposed action on top of the species' baseline condition.[2]

A BiOp must include a description of the proposed action, a review of the status of the species and critical habitat, a discussion of the environmental baseline, and an analysis of the direct and indirect effects of the proposed action and the cumulative effects of reasonably certain future state, tribal, local, and private actions. *See* Consultation Handbook at 4-14 to 4-31. At the end of the formal consultation process, the FWS determines whether the proposed action—in addition to the pre-existing environmental baseline of the species—is likely to jeopardize the continued existence of a listed species or destroy or adversely modify any designated critical habitat. If the FWS determines that the proposed action is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat, but that the proposed action will nevertheless result in the incidental taking of listed species, then the FWS must provide the action agency with a written Incidental Take Statement ("ITS") specifying the "impact of such incidental taking on the species" and "any reasonable and prudent measures that the [FWS] considers necessary or appropriate to minimize such impact" and setting forth "the terms and conditions . . . that must be complied with by the [action] agency . . . to implement [those measures]." 16 U.S.C. § 1536(b)(4). If the FWS determines that the action will jeopardize a listed species or destroy or adversely modify designated critical habitat, then the FWS must offer the action agency reasonable and prudent alternatives to the proposed action that will avoid jeopardy to a listed species or adverse critical habitat modification, if such alternatives exist. *Id.* § 1536(b)(3)(A).

[2] When preparing a BiOp, the FWS must (1) "review all relevant information," (2) "evaluate the current status of the listed species," and (3) "evaluate the effects of the action and cumulative effects on the listed species," 50 C.F.R. § 402.14, using "the best scientific and commercial data available," 16 U.S.C. § 1536(a)(2).

FWS and the Forest Service, in arriving at these determinations, are required by law to use "the best scientific . . . data available."[3]

FWS and the Forest Service, in arriving at these determinations, must also provide the "benefit of the doubt" to endangered species. This core principle of the ESA is well established:

> "In formulating its biological opinion, the Service must provide the "benefit of the doubt" to the species concerned, H.R. Conf. Rep. No. 697, supra, at 12."[4]
>
> "…the general goals of the ESA have been interpreted such that the benefit of doubt must be given to the protection of endangered species."[5]
>
> "Congress clearly intended that the COE give "the highest of priorities" and the "benefit of the doubt" to preserving endangered species…*TVA v. Hill,* 437 U.S. at 174, 98 S.Ct. at 2292; H.R.Conf.Rep. No. 697, 96th Cong., 1st Sess. 12 (1979), *reprinted in* 1979 U.S.Code Cong. & Admin.News 2572, 2576 (conference committee's explanation of Pub.L.No. 96-159, 93 Stat. 1226, the 1979 amendments to the ESA)."[6]

Without an adequate BiOp and an ITS in place (or, in the context of informal consultation, absent a lawful concurrence in a "not likely to adversely affect" determination), any activities likely to result in incidental take of members of listed species are unlawful. *Id.* § 1538(a)(1)(B). Accordingly, anyone who undertakes such activities, or who authorizes such activities, *id.* § 1538(g), may be subject to criminal and civil federal enforcement actions, as well as civil actions by citizens for declaratory and injunctive relief, *see id.* § 1540. This includes action agencies, which must ensure their own compliance with the ESA; an action agency "cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species" merely by relying upon a BiOp, concurrence, or other consultation document issued by the FWS. *Pyramid Lake Paiute Tribe v. U.S. Dep't of Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990).

VIOLATIONS OF LAW

"**It's well settled that cattle and riparian areas do not mix**."[7]

> U.S. Department of Justice ("DOJ") Environment and Natural Resources Division Senior Trial Attorney Andrew A. Smith, February 1, 2024.

[3] 16 U.S.C. § 1536(a)(2).
[4] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.
[5] Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.
[6] *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).
[7] *New Mexico Cattle Growers' Association, et al. v. United States Forest Service, et al.*, Case 1:23-cv-00150-JB-GBW, Albuquerque, NM, February 1, 2024; Hearing Transcript, page 126.

DOJ Attorney Smith, who in addition to being a senior DOJ trial attorney, is also a published biologist.[8] DOJ Attorney Smith acknowledges the fact that cow grazing damages western riparian areas based on extensive documentation by FWS,[9] and based on the published scientific literature.[10]

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[8] Distinguishing Characteristics of Mount Graham Red Squirrel Midden Sites, Andrew A. Smith and R. William Mannan, J. Wildl. Manage. 58(3):437-445, 1994, https://biologicaldiversity.org/species/mammals/Mount_Graham_red_squirrel/pdfs/report-19910900-Identification-of-Distiguishing-Characteristics-Around-Middens-of-MGRS-MANNAN_ANDREW-SMITH%201.pdf.

[9] Apache Trout: recovery: https://www.govinfo.gov/link/fr/74/45649?link-type=pdf; Arizona Eryngo: listing & CH: https://www.govinfo.gov/link/fr/87/35431; Canelo Hills Ladies-Tresses: listing: https://www.govinfo.gov/link/fr/62/665?link-type=pdf; Chiricahua Leopard Frog: listing & CH: https://www.govinfo.gov/link/fr/77/16324?link-type=pdf; Desert Pupfish: listing & CH: https://www.govinfo.gov/link/fr/51/10842?link-type=pdf; Gila Chub: listing & CH: https://www.govinfo.gov/link/fr/70/66664?link-type=pdf; Gila Trout: listing: https://www.govinfo.gov/link/fr/71/40657?link-type=pdf ; recovery: https://ecos.fws.gov/docs/recovery_plan/Revised%20Recovery%20Plan%20for%20the%20Gila%20trout%20(2022)%20Signed.pdf; Loach Minnow, listing & CH: https://www.govinfo.gov/link/fr/51/39468?link-type=pdf ; https://www.govinfo.gov/link/fr/77/10810?link-type=pdf; Mexican Spotted Owl: recovery: https://ecos.fws.gov/docs/recovery_plan/MSO_Recovery_Plan_First_Revision_Dec2012.pdf; Narrow-headed Gartersnake/Northern Mexican Gartersnake: listing: https://www.govinfo.gov/content/pkg/FR-2014-07-08/pdf/2014-14615.pdf; Gila Topminnow: recovery: https://ecos.fws.gov/docs/recovery_plan/990305.pdf; New Mexico Meadow Jumping Mouse: listing: https://www.govinfo.gov/link/fr/79/33119?link-type=pdf; Huachuca Water Umbel: listing: https://www.govinfo.gov/link/fr/62/665?link-type=pdf ; CH: https://www.govinfo.gov/link/fr/64/37441?link-type=pdf; Sacramento Mountains Thistle: listing: https://www.govinfo.gov/link/fr/52/22933?link-type=pdf; Sacramento Prickly Poppy: listing: https://www.govinfo.gov/link/fr/54/35302?link-type=pdf; Sonora Tiger Salamander: listing: https://www.govinfo.gov/link/fr/62/665?link-type=pdf; Spikedace listing & CH: https://www.govinfo.gov/link/fr/51/23769?link-type=pdf ; https://www.govinfo.gov/link/fr/77/10810?link-type=pdf; Sonora Chub: listing & CH: https://www.govinfo.gov/link/fr/51/16042?link-type=pdf; Southwestern Willow Flycatcher: listing: https://www.govinfo.gov/link/fr/60/10695?link-type=pdf ; CH: https://www.govinfo.gov/link/fr/78/344?link-type=pdf ; recovery: https://ecos.fws.gov/docs/recovery_plan/southwestern%20willow%20flycatcher%20recovery%20plan%202002%20-%20complete.pdf; Yellow-billed Cuckoo: listing: https://www.govinfo.gov/link/fr/79/59991?link-type=pdf ; CH: https://www.govinfo.gov/link/fr/86/20798?link-type=pdf;

[10] Agouridis, C.T., Workman, S.R., Warner, R.C. and Jennings, G.D., 2005. Livestock grazing management impacts on stream water quality: a review 1. *JAWRA Journal of the American Water Resources Association*, *41*(3), pp.591-606.; Ames, C.R., 1977. in Riparian Management: Grazing'. In *Importance, Preservation and Management of Riparian Habitat: A Symposium, Tucson, Arizona, July 9, 1977* (Vol. 43, p. 49). Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station.; Amiri, F., Ariapour, A. and Fadai, S., 2008. Effects of livestock grazing on vegetation composition and soil moisture properties in grazed and non-grazed range site. *Journal of Biological Sciences*, *8*(8), pp.1289-1297.; Armour, C., Duff, D. and Elmore, W., 1994. The effects of livestock grazing on western riparian and stream ecosystem. *Fisheries*, *19*(9), pp. 9-12.; Bahre, C.J., 1991. *A legacy of change: historic human impact on vegetation in the Arizona borderlands*. University of Arizona Press.; Belsky, A.J., Matzke, A. and Uselman, S., 1999. Survey of livestock influences on stream and riparian ecosystems in the western United States. *Journal of Soil and water Conservation*, *54*(1), pp. 419-431.; Beschta, R. L., and J. B. Kauffman. 2000. Restoration of riparian ecosystems-taking a broader view. Pages 323–328 in P. J. Wigington, and R. L. Beschta (eds.), International conference on riparian ecology and management in multiple use watersheds. American Water Resources Association, Middleburg, Virginia, TS-00-2, 616 pp.; Beschta, R.L., Donahue, D.L., DellaSala, D.A., Rhodes, J.J., Karr, J.R., O'Brien, M.H., Fleischner, T.L. and Williams, C.D., 2013. Adapting to climate change on western public lands: addressing the ecological effects of domestic, wild, and feral ungulates. Environmental Management, 51(2), pp.474-491.; Bock, C.E., Bock, J.H. and Smith, H.M., 1993. Proposal for a system of federal livestock exclosures on public rangelands in the western United States. *Conservation Biology*, pp.731-733.; Brooks, M.L., 1995. Benefits of protective fencing to plant and rodent communities of the western Mojave Desert, California. *Environmental Management*, *19*, pp.65-74.; Carothers, S.W., 1977. Importance, preservation, and management of riparian habitats: an overview. In *Importance, preservation, and management of riparian habitats: a symposium. USDA Forest Service General Technical Report RM-43* (pp. 2-4).; Clary, W.P. and Kruse, W.H., 2004. Livestock grazing in riparian areas: environmental impacts, management practices and management implications. *Riparian areas of the southwestern United States: Hydrology, ecology, and management*, pp.237-258.; Colloff, M.J., Pullen, K.R. and Cunningham, S.A., 2010. Restoration of an ecosystem function to revegetation communities: the role of invertebrate macropores in enhancing soil water infiltration. *Restoration Ecology*, *18*, pp.65-72.; Crouch, G. L. 1978. Effects of protection from livestock grazing on a bottomland wildlife habitat in northeastern Colorado. Pages 118 –125 in Proceedings: Lowland River and Stream Habitat Symposium, 4 –5, October 1978, Greeley, CO.; Dobkin, D.S., Rich, A.C. and Pyle, W. 1998. Habitat and avifaunal recovery from livestock grazing in a riparian meadow system of the northwestern great basin. Conservation Biology 12: 209–221.; Donahue, D.L., 2006. Federal rangeland policy: perverting law and jeopardizing ecosystem services. J. Land Use and Envtl. L., 22, p. 299.; Donahue, Debra L., Livestock Production, Climate Change, and Human Health: Closing the Awareness Gap, Environmental Law Reporter, 45 ELR 11112, 12-2015, http://ssrn.com/abstract=2696741; citing: *See, e.g.*, Beschta et al., *supra* note 59, at 476-81; Ripple et al., *supra* note 2, at 2, 3.; Duff, D. 1979. Riparian habitat recovery on Big Creek, Rich County, UT—a summary of eight years of study. Pages 91–92 in O.B. Cope (ed.), Proceedings: forum on grazing and the riparian stream ecosystem. Trout Unlimited, Denver, Colorado.; Eldridge, D.J., Poore, A.G., Ruiz-Colmenero, M., Letnic, M. and Soliveres, S., 2016. Ecosystem structure, function, and composition in rangelands are negatively affected by livestock grazing. *Ecological Applications*, *26*(4), pp.1273-1283.; Eldridge, D.J. and Delgado-Baquerizo, M., 2017.

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Cow grazing on the Sacramento Allotment of the Lincoln National Forest is a perfect example "that cattle and riparian areas do not mix."

VIOLATIONS REGARDING THE NEW MEXICO MEADOW JUMPING MOUSE

In spite of being listed as endangered on June 10, 2014, based in good part on the fact that "habitat losses include grazing pressure (which removes the needed vegetation)…"[11]; and in spite of Critical Habitat being proposed on April 8, 2014[12] and being designated on March 16, 2016,[13] the Forest Service, the Lincoln National Forest and FWS have only been able to document continued NMMJM demise and continued failure to recover in cow grazing degraded Critical Habitat over the last decade on the Lincoln National Forest.

The importance of the protection of Critical Habitat—and in particular, *occupied* Critical Habitat—as being not only necessary for survival but that is essential for recovery cannot be overstated.[14]

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353 in T. E. Martin and O. M. Finch, (eds.), Ecology and management of neoptropical migratory birds. Oxford University Press, New York.; Sanders, K. D., and A. S. Voth. 1982. Ecological changes of grazed and ungrazed plant communities. in Managing Intermountain Rangelands-Improvement of Range and Wildlife Habitats. Symposia proceedings: 15–17, September 1981, Twin Falls, Idaho, and 22–24 June 1982, Elko, Nevada.; Samuelson, G.M. and Rood, S.B., 2011. Elevated sensitivity: riparian vegetation in upper mountain zones is especially vulnerable to livestock grazing. *Applied Vegetation Science*, *14*(4), pp.596-606.; Sarr, D., R. A. Knapp, J. Owens, T. Balser, and T. L Dudley. 1996. Ecosystem recovery from livestock grazing in the southern Sierra Nevada. Final report submitted to Aldo Leopold Wilderness Research Institute, Missoula, Montana, 61 pp.; Sarr, D.A., 2002. Riparian livestock exclosure research in the western United States: a critique and some recommendations. *Environmental management*, *30*, pp.516-526.; Schlesinger, W.H., Reynolds, J.F., Cunningham, G.L., Huenneke, L.F., Jarrell, W.M., Virginia, R.A. and Whitford, W.G., 1990. Biological feedbacks in global desertification. *Science*, *247*(4946), pp. 1043-1048.; Schulz, T. T., and Leininger, W. C. 1990. Differences in riparian vegetation structure between grazed areas and exclosures. Journal of Range Management, 43(4), 295-299.; Schulz, T. T., and W. C. Leininger. 1991. Nongame wildlife communities in grazed and ungrazed montane riparian sites. Great Basin Naturalist 51(3):286 –292.; Scott, M.L., Skagen, S.K. and Merigliano, M.F. 2003. Relating geomorphic change and grazing to avian communities in riparian forests. Conservation Biology 17: 284–296.; Silcock, J.L. and Fensham, R.J., 2013. Arid vegetation in disequilibrium with livestock grazing: evidence from long-term exclosures. Austral Ecology, 38(1), pp.57-65.; Skovlin, J.M., 2021. Impacts of grazing on wetlands and riparian habitat: A review of our knowledge. *Developing strategies for rangeland management*, pp.1001-1104.; Small, B.A., Frey, J.K. and Gard, C.C., 2016. Livestock grazing limits beaver restoration in northern New Mexico. *Restoration Ecology*, *24*(5), pp.646-655.; Springer, Dordrecht., Orodho, A.B., Trlica, M.J. and Bonham, C.D., 1990. Long-term heavy-grazing effects on soil and vegetation in the four corners region. *The Southwestern Naturalist*, pp.9-14.; Strand, M. and Merritt, R.W., 1999. Impacts of livestock grazing activities on stream insect communities and the riverine environment. *American Entomologist*, *45*(1), pp.13-29.; Stromberg, J.C., 1993. Fremont cottonwood-Goodding willow riparian forests: a review of their ecology, threats, and recovery potential. Journal of the Arizona-Nevada Academy of Science, pp.97-110.; Stromberg, J.C., Setaro, D.L., Gallo, E.L., Lohse, K.A. and Meixner, T., Riparian vegetation of ephemeral streams, *Journal of Arid Environments*, *138*, 2017, pages 27-37.; Szaro, R.C. and Pase, C.P. 1983. Short-term changes in a cottonwood–ash–willow association on a grazed and Samuelson, G.M. and Rood, S.B. Grazing of mountain riparian zones on a grazed and ungrazed portion of Little Ash Creek in central Arizona. Journal of Range Management 36: 382–384.; Taylor, D. M. 1986. Effects of cattle grazing on passerine birds nesting in riparian habitat. Journal of Range Management 39:254 –258.; Taylor, D. M., and C. D. Littlefield. 1986. Willow flycatcher and yellow warbler response to cattle grazing. American Birds 40:1169-1173.; Tewksbury, J.J., Black, A.E., Nur, N.A.D.A.V., Saab, V.A., Logan, B.D. and Dobkin, D.S., 2002. Effects of anthropogenic fragmentation and livestock grazing on western riparian bird communities. *Studies in Avian Biology*, *25*, pp.158-202.

[11] Endangered and Threatened Wildlife and Plants: Determination of Endangered Status fo rhte New Mexico Meaow Jumping Mouse Throughout Its Range, Final Rule, Department of Interior Fish and Wildlife Service, Federal Register, Vol. 79, Page 33119, June 10, 2014, https://www.govinfo.gov/link/fr/79/33119?link-type=pdf.

[12] Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse, Proposed rule, Federal Register, Vol. 79, Page 19307, April 8, 2014, https://www.govinfo.gov/link/fr/79/19307?link-type=pdf.

[13] Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse, Final rule, Federal Register, Vol. 81, Page 14264, March 16, 2016, https://www.govinfo.gov/content/pkg/FR-2016-03-16/pdf/2016-05912.pdf.

[14] Indeed, the Recovery Plan for the New Mexico Meadow Jumping Mouse states unequivocally that "[t]o have sufficient levels of resiliency, redundancy, and representation, occupied New Mexico meadow jumping mouse functionally connected habitat in each [Critical Habitat management unit] is necessary for recovery." U.S. FWS, Recovery Plan for New Mexico Meadow Jumping Mouse 18 (2023).

The Ninth Circuit Court of Appeals succinctly summarizes the purpose of Critical Habitat (***emphasis added***):

> ***"…the purpose of establishing "critical habitat" is for the government to carve out territory that is not only necessary for the species' survival but also essential for the species' recovery***."[15]

In "Lincoln National Forest Jumping Mouse Annual Report for 2017," Dr. Carol Chambers reports,

> "***Because we had so few detections of jumping mice on the LNF [Lincoln National Forest], we did not live-trap or radio collar animals to avoid risk to individuals***."[16]

In November 2020, the Lincoln National Forest found that "***the count of surviving [NMMJM] subpopulations is teetering against zero***."[17]

On May 19, 2023, the Lincoln National Forest observed,

> "**USFS personnel continued the track plate method in 2019, 2020, 2021, and 2022. The NMMJM was last detected in the action area in 2021**."[18]

The 2023 Sacramento BiOp even admits,

> "**Outside of permanent exclosures, the restoration of riparian areas is unlikely to occur as quickly as within exclosures because grazing will continue. With continued grazing in unprotected jumping mouse critical habitat, the Service does not expect these areas will provide suitable jumping mouse habitat because they are not likely to contain or produce many of the PCE [primary constituent elements of Critical Habitat] requirements due to livestock grazing**."[19]
>
> "**Use of designated jumping mouse critical habitat by livestock in riparian areas outside of permanent exclosures will continue to inhibit the attainment of PCEs I, II, and III, thereby preventing the development of suitable riparian habitat to support jumping mouse populations.** Specifically, grazing will reduce herbaceous riparian

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[15] 16 U.S.C. § 1533(f)(1); GIFFORD PINCHOT TASK FORCE, et al., v. UNITED STATES FISH & WILDLIFE SERVICE, No. 03-35279; U.S. Court of Appeals for the Ninth Circuit, *378 F.3d 1059*; *2004 U.S. App. LEXIS 16215*; *59 ERC (BNA) 1110*; *34 ELR 20068,* June 7, 2004, Argued and Submitted, Seattle, Washington, August 6, 2004, Filed.

[16] "Lincoln National Forest Jumping Mouse Annual Report for 2017," FS Agreement No.: 17-CR-11031000-003; Reporting Period: January – December 2017; Project Title: New Mexico meadow jumping mouse habitat and diet on the Lincoln National Forest; Carol L. Chambers, undated.

[17] "New Mexico meadow jumping mouse population and montane meadow status and analysis for strategic conservation of Critical Habitat on Lincoln National Forest including 2019 and 2020, November 2020; https://www.biologicaldiversity.org/species/mammals/pdfs/lnf-report-20201100-NMMJM-POPULATION-AND-MONTANE-MEADOW-STATUS-LNF.pdf.

[18] Re-initiation of Consultation on Sacramento and Dry Canyon Allotments Ongoing Livestock Management Activities, Biological Assessment, Lincoln National Forest, May 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-agua-chiquita-allotment-BIOLOGICAL-ASSESSMENT-20230801-AguaChiquita_BA_Final_20230801.pdf. ("2023 Agua Chiquita Biological Assessment")

[19] 2023 Sacramento BiOp, page 75.

> vegetation through consumption and trampling by livestock (PCE I and II). PCE III, which provides contiguous, connected habitat along streams and in riparian areas, will not be achieved in critical habitat accessible by livestock. This is because livestock use will continue to cause degradation of streambanks through hoof shear, soil compaction, trampling and overgrazing (Belsky *et al.* 1999), resulting in critical habitat fragmentation or loss."[20]

And in the 2023 Sacramento BiOp, FWS says,

> "The proposed action is not likely to destroy or adversely modify jumping mouse critical habitat because the current condition of the action area is already poor…"[21]

Flawed logic aside, this one central fact from the 2023 Sacramento BiOp cannot be ignored:

> "***the current condition of the action area is already poor***…"[22]

Nonetheless, in the 2023 Sacramento BiOp, the Forest Service and FWS still choose to leave 42% of NMMJM riparian Critical Habitat on the Sacramento Allotment without permanent exclosure protection:

> "…the amount of critical habitat that will not be protected with permanent exclosures on National Forest Lands in the action area (238 acres, 96 ha) is approximately 42% of the designated critical habitat within the action area."[23]

In addition, the Forest Service proposes to leave 74% of NMMJM riparian Critical Habitat on the adjoining Agua Chiquita Allotment without permanent exclosure protection.[24]

In other words, based on the 2023 Sacramento BiOp, and consistent with the June 2023 Agua Chiquita Allotment Biological Assessment, which will be undoubtedly similarly rubberstamped by FWS in the new Biological Opinion, **49% of the entire NMMJM riparian Critical Habitat in the Sacramento Mountains will not have permanent exclosure protection**.[25]

To make matters worse, the 42% of NMMJM riparian Critical Habitat on the Sacramento allotment will be inadequately protected by only limiting cow grazing to "[u]p to 35% utilization in upland and riparian areas of jumping mouse critical habitat outside of permanent exclosures on forage used by livestock based on a 3-year rolling average."[26]

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[20] Ibid., page 76.
[21] Ibid., page 84.
[22] Ibid.
[23] Ibid., page 76, (238 of the total 565 acres = 42%).
[24] Agua Chiquita Ongoing Livestock Management Activities Biological Assessment, Sacramento Ranger District Lincoln National Forest, June 2023, pages 17-18, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-agua-chiquita-allotment-BIOLOGICAL-ASSESSMENT-20230801-AguaChiquita_BA_Final_20230801.pdf.
[25] Total NMMJM Critical Habitat on the Agua Chiquita allotment equals 141.9 acres, with 105 acres of NMMJM Critical Habitat outside of permanent exclosures on the Agua Chiquita. Total NMMJM Critical Habitat on the Sacramento allotment equals 565 acres.
[26] The total acreage of NMMJM Critical Habitat on the Sacramento and Agua Chiquita allotments totals 706.9 acres, of which 141.9 (from Table 2, pages 17-18 of the 2023 Agua Chiquita Biological Assessment) are on the Agua Chiquita allotment and 567 acres (238 acres = 42% of 567) are on the Sacramento allotment. With 238 acres of NMMJM Critical Habitat outside of permanent exclosures on

And similarly, for the Agua Chiquita Allotment, 74% of NMMJM riparian Critical Habitat[27] will be inadequately protected by only limiting cow grazing to "[a]llowable [u]tilization levels [l]evels…[for] NMMJM Critical Habitat outside exclosures … [n]ot to exceed 35% utilization."[28]

Utilization only "measures the percentage of annual herbage production that has been removed" where "[t]argeting a planned utilization level or stubble height is one way to achieve short-term land management" according to NRCS' National Range and Pasture Handbook.[29]

Utilization is not relevant nor is it appropriate as a metric for use to protect an endangered species, not only because it is a short-term management tool, but logically fallacious. If you start out with less than 24" of streamside vegetation and then remove 35% of annual herbage production, you will never achieve the required goal of "tall (averaging 61 centimeters (24 inches)), dense riparian herbaceous vegetation"[30] within any functional time frame necessary for survival, much less the recovery of an endangered species.

Even the FWS official responsible for the production of the 2023 Sacramento BiOp, Dr. Shawn Sartorius, himself, acknowledges that,

> "**the range grazing measures are inadequate to measure needs for sensitive/listed wildlife**."[31]

Here, Dr. Sartorius and his colleagues are referring to the proposed use of a utilization metric by the Coronado National Forest to protect endangered Yellow-billed Cuckoo Critical Habitat with the strategy that "[f]orage utilization on the CNF is generally managed at a light to moderate intensity (30-45% of current year's growth)."[32]

Reliance on utilization as the metric to "protect" NMMJM is particularly disingenuous and arbitrary; especially when the 2023 Sacramento BiOp FWS admits that,

> "**the current condition of the action area is already poor**…";[33] that,
>
> "**[w]ith continued grazing in unprotected jumping mouse critical habitat, the Service does not expect these areas will provide suitable jumping mouse habitat** because they are not likely to contain or produce many of the PCE [primary constituent elements of Critical Habitat] requirements due to livestock grazing...";[34] and, that,

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the Sacramento allotment and with 105 acres of NMMJM Critical Habitat outside of permanent exclosures on the Agua Chiquita, 343 of a total of 706.9 acres of NMMJM Critical Habitat on the two allotments, or 48.5%, is outside of permanent exclosures.

[27] Agua Chiquita Ongoing Livestock Management Activities Biological Assessment, Sacramento Ranger District Lincoln National Forest, June 2023, pages 17-18, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-agua-chiquita-allotment-BIOLOGICAL-ASSESSMENT-20230801-AguaChiquita_BA_Final_20230801.pdf.

[28] Ibid., page 27.

[29] National Range and Pasture Handbook, Part 645, Subpart E – Inventory, Assessment, and Monitoring for Grazing Lands, NRCS, https://directives.sc.egov.usda.gov/48459.wba.

[30] Species Status Assessment Report for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), prepared by the U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 1ST Revision, January 30, 2020, page iii, https://ecos.fws.gov/ServCat/DownloadFile/211849.

[31] Email from FWS biologist Susan Sferra to FWS biologists Jeff Servoss and Julie McIntyre, RE: suggestion from Shawn [Sartorius] on grazing BO, July 5, 2019, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/coronado-20190927-BIOLOGICAL-ASSESSMENT-20190705-EMAIL-FROM-SFERRA-to-SERVOSS-re-GRAZING-STANDARDS-ARE-INADEQUATE-Mail--Servoss-Jeff--Outlook16.pdf.

[32] Biological Assessment for Coronado National Forest Livestock Grazing Program, February 2019, page 41, https://www.biologicaldiversity.org/programs/public_lands/grazing/pdfs/coronado-20190227-ba_cnf-grazing.pdf.

[33] 2023 Sacramento BiOp, page 84.

[34] Ibid., page 75.

> "**[u]se of designated jumping mouse critical habitat by livestock in riparian areas outside of permanent exclosures will continue to inhibit the attainment of PCEs I, II, and III, thereby preventing the development of suitable riparian habitat to support jumping mouse populations**. Specifically, grazing will reduce herbaceous riparian vegetation through consumption and trampling by livestock (PCE I and II). PCE III, which provides contiguous, connected habitat along streams and in riparian areas, will not be achieved in critical habitat accessible by livestock. This is because livestock use will continue to cause degradation of streambanks through hoof shear, soil compaction, trampling and overgrazing (Belsky *et al.* 1999), resulting in critical habitat fragmentation or loss."[35]

With the new 2023 Sacramento BiOp, the Forest Service and FWS propose to graze more cows for a shorter period of time within the riparian NMMJM Critical Habitat not protected by permanent fencing instead of removing the cows to assure recovery of the habitat.

But this scheme defies logic as even the diminished stocking rates from past livestock reduction regimes in 2022, from a level of 412 head of livestock in 2021,[36] to a level of 103 cows 2022,[37] to a level of 130 cows in 2023,[38] and to 150 cows in 2024,[39] have not resulted in recovery of NMMJM riparian Critical Habitat to the required streamside vegetation height essential to NMMJM survival much less recovery.

The 2023 Sacramento BiOp fails to note that while the stocking rate was reduced from a level of 412 head of livestock in 2021,[40] to a level of 103 cows in 2022,[41] the Forest Service has been increasing the stocking rate since to a level of 130 cows in 2023,[42] and to 150 cows in 2024.[43]

The Forest Service's rationale for increasing the Sacramento Allotment stocking rate is that they will be rotating pastures again in 2024,[44] as they did starting in 2023.[45]

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[35] Ibid., page 76.
[36] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2021, Sacramento Ranger District, March 4, 2021, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20210304.pdf.
[37] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2022, Sacramento Ranger District, March 10, 2022, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20220310-20220310_AOI-SGA.pdf.
[38] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.
[39] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2024, Sacramento Ranger District, February 29, 2024, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20240229%2020240229_FINAL_Sacramento_DryCanyon_Allotment-2024-AOI-Signed.pdf.
[40] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2021, Sacramento Ranger District, March 4, 2021, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20210304.pdf.
[41] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2022, Sacramento Ranger District, March 10, 2022, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20220310-20220310_AOI-SGA.pdf.
[42] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.
[43] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2024, Sacramento Ranger District, February 29, 2024, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20240229%2020240229_FINAL_Sacramento_DryCanyon_Allotment-2024-AOI-Signed.pdf.
[44] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2024, Sacramento Ranger District, February 29, 2024, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20240229%2020240229_FINAL_Sacramento_DryCanyon_Allotment-2024-AOI-Signed.pdf.
[45] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.

But this ignores the blatant failure of the rotational scheme documented in the January 2024, Compliance Monitoring for the April 20, 2021, Biological Opinion for Ongoing Livestock Management on the Sacramento and Dry Canyon Allotments ("2024 Compliance Monitoring").[46] Nor do the agencies off any meaningful explanation as to *how* this rotational scheme, which still allows significant grazing in NMMJM critical habitat, will actually achieve the minimum vegetation height necessary to sustain, much less recover, NMMHM populations.

The 2021 Sacramento BiOp requires that utilization in designated NMMJM riparian Critical Habitat not exceed 35%.[47]

However, in the 2024 Compliance Monitoring report, the Forest Service documents that at the end of the grazing season for the first rotation in the Sacramento South Pasture, the average % utilization was 69.9%.[48]

This obviously and blatantly violates the 2021 Sacramento BiOp's requirement that utilization in designated NMMJM riparian Critical Habitat not exceed 35%.[49]

And then to add insult to injury, the cows were rotated onto the Sacramento North Pasture/Atkinson in spite of the fact that the "**Pre-Grazing** … Percent utilization" was documented to have a "Average % Utilization" of 79.3%.[50]

In 2023, cow grazing should have never even been allowed onto the Sacramento North Pasture/Atkinson consistent with the Forest Service's legal and contractual obligations codified in the 2021 Sacramento BiOp.

Predictably, not only did the 2023 rotating pastures scheme not change FWS's 2023 Sacramento BiOp acknowledgement that "the current condition of the area is already poor…";[51] it also states that "[c]urrent grazing practices have not resulted in habitat improvement across the allotment, as evidenced by the continual exceedance in grazing criteria reported over the past few years (USFS 2016a, 2018, 2019, 2020a, 2021, 2022, 2023), outside of permanent wildlife exclosures,"[52]

No wonder designated NMMJM riparian Critical Habitat is not recovering on the Sacramento Allotment.

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[46] Compliance Monitoring for the April 2021 Biological Opinion on the Sacramento and Dry Allotments (Cons: #02ENNM00-2016-F0440-R002), Annual Report, Lincoln National Forest, January 2024, Table 8, page 17; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-20240100-ANNUAL-REPORT-2023MonitoringReport_Final.pdf.

[47] Biological Opinion for Ongoing Livestock Management on the Sacramento and Dry Canyon Allotments, Cons: # 02ENNM00-2016-F-0440-R002, FWS, April 20, 2021, page 16, Table 5, page 20, Table 7.; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-BIOLOGICAL-OPINION-20210420-Signed_20210420_FINAL_BO_2021_Reinitiation_Sacramento-Allotment_2016-F-0440-R002.pdf.

[48] Compliance Monitoring for the April 2021 Biological Opinion on the Sacramento and Dry Allotments (Cons: #02ENNM00-2016-F0440-R002), Annual Report, Lincoln National Forest, January 2024, Table 8, page 17; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-20240100-ANNUAL-REPORT-2023MonitoringReport_Final.pdf.

[49] Biological Opinion for Ongoing Livestock Management on the Sacramento and Dry Canyon Allotments, Cons: # 02ENNM00-2016-F-0440-R002, FWS, April 20, 2021, page 16, Table 5, page 20, Table 7.; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-BIOLOGICAL-OPINION-20210420-Signed_20210420_FINAL_BO_2021_Reinitiation_Sacramento-Allotment_2016-F-0440-R002.pdf.

[50] Compliance Monitoring for the April 2021 Biological Opinion on the Sacramento and Dry Allotments (Cons: #02ENNM00-2016-F0440-R002), Annual Report, Lincoln National Forest, January 2024, Table 7, page 16; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-20240100-ANNUAL-REPORT-2023MonitoringReport_Final.pdf.

[51] 2023 Sacramento BiOp, page 84.

[52] Ibid., page 58.

Again, predictably, grazing practices on the Sacramento Allotment are consistent with the classic, still applicable, findings in "ROOT-GROWTH STOPPAGE Resulting From Defoliation of Grass," by USDA Soil Conservation Service scientist Franklin Crider:

> "Removals during the growing season of half or more of the foliage of grasses – cool and warm-season species including bunch, rhizomatous, and stoloniferous types – causes root growth to stop for a time after each removal…
>
> …a single clipping that removed most of the foliage caused root growth to stop for periods ranging from 6 to 18 days. Stoppage occurred usually within 24 hours and continued until recover o the tip growth was well advanced. When these clippings were repeated periodically, as in a system of rotation grazing, root growth of all the grasses stopped for periods that ranged from 25 to 45 days during the growing season.
>
> The percentage of roots that stopped growth varied in proportion to the percentage of the foliage that was removed…
>
> Effects of such clippings repeated frequently – similar to continuous grazing – were much more severe. …
>
> Reduction of the foliage on the grasses affected root production adversely. …
>
> The drastic effects of the higher percentages of foliage removal in causing complete and prolonged root-growth stoppage, and correspondingly reduced root production, was reflected in poor development of the grass plants. …
>
> …close grazing or mowing during the growing season is at the expense of stand establishment and maintenance…"[53]

And now in defiance of logic, while the Forest Service has shortened the period of grazing on the allotment's summer pasture by one week in 2024, the Forest Service has increased the stocking rate from a level of 130 cows in 2023,[54] to 150 cows in 2024.[55]

Grazing of any area with more cows for a shorter period of time is no different than the grazing of fewer animals for a longer time period. The net result is the same, failure to achieve recovery once again.

The summary here is that the 2023 Sacramento BiOp acknowledges that "the current condition of the area is already poor…"[56] and states that "[c]urrent grazing practices have not resulted in habitat improvement across the allotment, as evidence by the continual exceedance in grazing criteria reported over the past few years (USFS 2016a, 2018, 2019, 2020a, 2021, 2022,

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[53] ROOT-GROWTH STOPPAGE Resulting From Defoliation of Grass, Franklin J. Crider, USDA Soil Conservation Service, Technical Bulletin No. 1102, February 1955.

[54] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.

[55] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2024, Sacramento Ranger District, February 29, 2024, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20240229%2020240229_FINAL_Sacramento_DryCanyon_Allotment-2024-AOI-Signed.pdf.

[56] 2023 Sacramento BiOp, page 84.

2023), outside of permanent wildlife exclosures,"[57] even after years of dramatically reduced levels of livestock.[58]

The management regime of fencing and monitoring in place since 2016 and again perpetuated by the new 2023 Sacramento BiOp has already failed to recover (or even protect) the species, as demonstrated by the facts that the NMMJM population is teetering on the brink of extirpation and critical habitat on the Allotment has failed to recover, despite reductions in stocking levels. Hence, such non-significant management regime changes do not offer more protection for an endangered species desperate for the recovery of its Critical Habitat much less for one at risk of extinction.

Only the assurance, per FWS, of "tall (averaging 61 centimeters (24 inches)), dense riparian herbaceous vegetation"[59] and, per the Forest Service, "requir[ing] perennial or seasonally perennial water and saturated soils that produce tall (24+ inch) herbaceous riparian plants, and intact adjacent uplands…"[60] protects NMMJM.

FWS's 2023 Sacramento BiOp fails to provide for this requirement for a minimum of 24 inches of dense riparian herbaceous vegetation and intact adjacent uplands.

And the Forest Service, as the action agency, fails to provide for this requirement on the ground.

Failing to provide for adequate protection for an endangered species is not just disingenuous and cynical, it is also illegal. Such an action violates the legally required standard to use "the best scientific . . . data available."[61]

Such an action also violates the legally required ESA standard to provide the "benefit of the doubt" to endangered species:

> "In formulating its biological opinion, the Service must provide the "benefit of the doubt" to the species concerned."[62]
>
> "…the general goals of the ESA have been interpreted such that the benefit of doubt must be given to the protection of endangered species."[63]

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[57] Ibid., page 58.
[58] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2021, Sacramento Ranger District, March 4, 2021, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20210304.pdf.; Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2022, Sacramento Ranger District, March 10, 2022, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20220310-20220310_AOI-SGA.pdf.; Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.
[59] Species Status Assessment Report for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), prepared by the U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 1ST Revision, January 30, 2020, page iii, https://ecos.fws.gov/ServCat/DownloadFile/211849.
[60] USDA Forest Service website, NM Meadow Jumping Mouse: Home Page, https://www.fs.usda.gov/detail/r3/home/?cid=stelprd3809040; accessed, MAY 22, 2021.
[61] 16 U.S.C. § 1536(a)(2).
[62] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.
[63] Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.

> "Congress clearly intended that the COE give "the highest of priorities" and the "benefit of the doubt" to preserving endangered species…[64]

It is also arbitrary and capricious, which violates the APA.[65]

Further, while requiring this use of the 35% utilization standard in "Term and Condition 2.7," the 2023 Sacramento BiOp additionally weakens protection as it only requires that "the Forest will implement the adaptive management actions[66] … [for] [u]p to 35% utilization in upland and riparian areas of jumping mouse critical habitat outside of permanent exclosures on foraged used by livestock based on a 3-year rolling average."[67]

This proposed management regime is not logical. It is contrary to the required use of the legally required standard to use "the best scientific . . . data available."[68] It is contrary to the requirement to provide the "benefit of the doubt" to endangered species.[69] And it is contrary to Dr. Sartorius' and his colleagues' recognition that,

> "**the range grazing measures are inadequate to measure needs for sensitive/listed wildlife**."[70]

It is also arbitrary and capricious, which violates the APA.[71]

This management regime also ignores the U.S. Department of Agriculture Rocky Mountain Research Station, Block and Moir's observations about adaptive management:

> "AM [Adaptive Management] is a kind of monitoring, an activity that land management agencies have done poorly for the most part, at least with respect to ground-based monitoring. Will they do better in the future? We doubt it unless costs, personnel, and future commitment are seriously addressed. Because ecosystem responses to management impacts can ripple into the distant future, monitoring programs that address only the near future (e.g. 10-20 years), are probably unreliable for making statements about resource conditions in the distant future. … Feedback loops between ecosystem response and adjustment of management actions are often broken, and therefore AM again fails. Successful ground-based monitoring must address these and other points that agencies commonly ignore. As part

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[64] *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).
[65] 5 U.S.C § 706(2)(A): "The reviewing court shall … hold unlawful and set aside agency action, findings, and conclusions found to be … arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."
[66] 2023 Sacramento BiOp, pages 92-93.
[67] Ibid., page 115.
[68] 16 U.S.C. § 1536(a)(2).
[69] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.; Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); and, U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.; and, *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).
[70] Email from FWS biologist Susan Sferra to FWS biologists Jeff Servoss and Julie McIntyre, RE: suggestion from Shawn [Sartorius] on grazing BO, July 5, 2019, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/coronado-20190927-BIOLOGICAL-ASSESSMENT-20190705-EMAIL-FROM-SFERRA-to-SERVOSS-re-GRAZING-STANDARDS-ARE-INADEQUATE-Mail--Servoss-Jeff--Outlook16.pdf.
[71] 5 U.S.C § 706(2)(A): "The reviewing court shall … hold unlawful and set aside agency action, findings, and conclusions found to be … arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."

> of the solution, publics distrustful of agency activities should be included in any monitoring program."[72]

In addition, with respect to NMMJM, FWS failed in its 2023 Sacramento BiOp to include a legally required environmental baseline analysis.

Here FWS's failure specifically involves excluding the nearby Agua Chiquita allotment, a federal activity, from its environmental baseline evaluation in the 2023 Sacramento BiOp. This violates the ESA, which requires consideration of the environmental baseline in any evaluation of an activity that will adversely affect an endangered species or its Critical Habitat.[73]

And then to make matters worse, the 2023 Sacramento BiOp uses an overly broad, non-attainable metric as a surrogate for the threshold which would result in the "taking"[74] of NMMJM.

For the threshold which would result in "taking" of NMMJM on the Sacramento allotment, the 2023 Sacramento BiOp's ITS uses "the number of livestock permitted in riparian and adjacent upland critical habitat outside of permanent exclosures as surrogates for determining when the authorized incidental take has been exceeded" where "[p]ermitted number of livestock do not exceed 412 head of livestock and up to 5 horses during the summer grazing season…"[75]

An ITS is supposed to set forth a "trigger" that, when reached, results in an unacceptable level of incidental take, requiring a re-initiation of consultation.

If a surrogate is used, as is the case here, FWS must "articulate a rational connection between the surrogate and the taking of the species."[76]

The 2023 Sacramento BiOp articulates no rational connection between the surrogate and the taking of NMMJM.

Using the exceedance of the livestock stocking number on the allotment of 412 head of livestock as the threshold for a "taking" is not logical. It is not relevant. It is not ever achievable. It is not protective. And it is not legal.

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[72] Adaptive management on public lands in the United States: commitment or rhetoric?, William H. Moir, and William M. Block, Rocky Mountain Research Station, Environmental Management, 28(2): 141-148, 2001, https://www.fs.usda.gov/research/treesearch/8431.

[73] 50 CFR § 402.2: "Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline."

[74] 16 U.S.C. § 1532(19): "The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

[75] 2023 Sacramento BiOp at 90.

[76] *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 531 (9th Cir. 2010).

It is not logical, relevant or achievable given the fact that the permitted number of livestock has not been at the level of 412 head of livestock since 2021,[77] with the level having been reduced to 103 cows in 2022,[78] raised to 130 cows in 2023,[79] and again now raised to 150 cows in 2024.[80]

This number of "412 head of livestock" is so high that it will never be reached again as the 2023 Sacramento BiOp acknowledges that "the current condition of the area is already poor…"[81] and states that "[c]urrent grazing practices have not resulted in habitat improvement across the allotment, as evidence by the continual exceedance in grazing criteria reported over the past few years (USFS 2016a, 2018, 2019, 2020a, 2021, 2022, 2023), outside of permanent wildlife exclosures."[82]

The 9th Circuit, in *Wild Fish Conservancy v. Salazar*, has already rejected similar use of a surrogate so broad and so unattainable that it can never be reached:

> "This court has rejected a surrogate trigger so … so broad … that it ''could not adequately trigger reinitiation of consultation." *Or. Natural Res. Council v. Allen,* 476 F.3d 1031, 1038 (9th Cir. 2007);[83] and,
>
> "…the Service has set a clear numerical cap, but a numerical cap is useful only insofar as the action agency is capable of quantifying take to determine when the trigger has been met. *See Or. Natural Res. Council,* 476 F.3d at 1039 (explaining that the incidental take statement must "set a clear standard for determining when the authorized level of take ha[s] been exceeded"); *Natural Res. Def. Council, Inc. v. Evans,* 279 F.Supp.2d 1129, 1187 (N.D.Cal.2003), cited with approval in *Or. Natural Res. Council,* 476 F.3d at 1038 ("It is arbitrary and capricious to set the trigger at one animal unless defendants can adequately detect the taking of a single animal."). Thus, the Service must either specify monitoring and reporting requirements with respect to the twenty-bull trout limit or, if appropriate, select a surrogate trigger that *can* be monitored. Therefore, we hold that the ITS failed to establish a meaningful trigger for renewed consultation after the take exceeded authorized levels."[84]

The 9th Circuit, in *Oregon Nat. Res. Council v. Allen*, also found that:

> "… [a] surrogate is permissible if no number may be practically obtained. The chosen surrogate, however, must be able to perform the functions of a numerical limitation. In particular, Incidental Take Statements "set forth a

[77] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2021, Sacramento Ranger District, March 4, 2021, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20210304.pdf.
[78] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2022, Sacramento Ranger District, March 10, 2022, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20220310-20220310_AOI-SGA.pdf.
[79] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.
[80] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2024, Sacramento Ranger District, February 29, 2024, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20240229%2020240229_FINAL_Sacramento_DryCanyon_Allotment-2024-AOI-Signed.pdf.
[81] 2023 Sacramento BiOp, page 84.
[82] Ibid., page 58.
[83] *Wild Fish Conservancy v. Salazar*, 628 F.3d 513 (9th Cir. 2010), https://casetext.com/case/wild-fish-conservancy-v-salazar.
[84] Ibid.

> 'trigger' that, when reached, results in an unacceptable level of incidental take … requiring the parties to reinitiate consultation." *Ariz. Cattle Growers' Ass'n*, 273 F.3d at 1249."[85]; and,
>
> "[t]he Incidental Take Statement … could never trigger the reinitiation of consultation because, by definition, the permissible take level is coextensive with the scope of the project."[86]

After years of dramatically reduced levels of livestock,[87] where "the current condition of the area is already poor"[88] due to mismanagement, and where "[c]urrent grazing practices have not resulted in habitat improvement across the allotment…outside of permanent wildlife exclosures,"[89] a "taking" trigger where the "[p]ermitted number of livestock do not exceed 412 head of livestock and up to 5 horses during the summer grazing season…"[90] is illogical and unlawful.

Consequently, the 2023 Sacramento BiOp is arbitrary and capricious, and contrary to law, as it fails to establish a meaningful trigger that clearly establishes when a "taking" occurs, consequently rendering impossible any reinitiation of consultation.

To add another fatal flaw to this consultation process, FWS concludes its jeopardy analysis with an illogical statement and an outright misrepresentation.

FWS concludes, "[t]he proposed action is not likely to destroy or adversely modify jumping mouse critical habitat because the current condition of the action area is already poor…"[91]

Such logic not only ignores why the condition of the habitat is "poor," i.e., the Forest Service's own mismanagement, as abetted in prior consultations with FWS, it obviously assumes that no more harm, no more obstruction of the recovery of Critical Habitat can occur to habitat in poor condition. This is obviously not true. Such reasoning defies logic and also ignores that, under Section 7 of the ESA, where an agency is not permitted to *further* worsen jeopardy to an endangered species or allot the *further* degradation of already impaired critical habitat.

Of course habitat in poor condition can be degraded further. And given the historically aggressive noncompliance of the Sacramento Allotment permittee, it is near certain that the inadequately protected NMMJM riparian Critical Habitat outside of the permanent exclosures will be further degraded.

The ESA was enacted not merely to forestall the extinction of species, but also to allow a species to recover to the point where it may be delisted. *See* 16 U.S.C. § 1532(3) (defining

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[85] *Oregon Nat. Res. Council v. Allen*, United States Court of Appeals, Ninth Circuit 476 F.3d 1031 (9th Cir. 2007), No. 05-35830, February 16, 2007, https://caselaw.findlaw.com/court/us-9th-circuit/1005655.html.
[86] Ibid.
[87] Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2021, Sacramento Ranger District, March 4, 2021, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20210304.pdf.; Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2022, Sacramento Ranger District, March 10, 2022, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20220310-20220310_AOI-SGA.pdf.; Annual Operating Instructions, Sacramento & Dry Canyon Allotments – GY 2023, Sacramento Ranger District, April 28, 2023, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/lnf-sacramento-allotment-AOI-20230428-Amended-20230428_Sacramento_DryCanyon_Allotment-2023-Amended-AOI.pdf.
[88] 2023 Sacramento BiOp, page 84.
[89] Ibid., page 58.
[90] Ibid., page 90.
[91] Ibid., page 84.

"conservation" as all methods that can be employed to "bring any endangered species or threatened species to the point at which the measures provided pursuant to this [Act] are no longer necessary"); *Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or.*, 515 U.S. 687, 699 (1995) (noting that Congress' intent in enacting the statute "was to halt and reverse the trend toward species extinction, whatever the cost"). Thus, Congress "by its own language, viewed conservation [i.e., recovery] and survival as distinct, though complementary goals." *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004).

Section 7(a)(2) of the ESA imposes on all federal agencies a substantive duty to "insure" their actions are not "likely to jeopardize the continued existence of" any listed species. 16 U.S.C. § 1536(a)(2). "To 'jeopardize'—the action the ESA prohibits—means to 'expose to loss or injury' or to 'imperil.'" *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 930 (9th Cir. 2008). Thus, agencies may not take any action that "imperil[s]" or risks the "loss" of listed species. Yet, a species may be "imperil[ed]" long before its survival is compromised; for instance, "a species may often cling to survival even when recovery is far out of reach," *id.* at 931. To give effect to both the statute's plain language and Congressional purpose, the duty to "insure" against jeopardy, therefore, requires an examination of an action's impacts on a species' recovery, separate from its survival. *Cf. Gifford*, 378 F.3d at 1070-71 (finding that the ESA requires FWS to consider impacts to both survival and recovery in its adverse modification determination).

Numerous courts have rejected Biological Opinions that failed to meaningfully evaluate and explain why a proposed action will not impair a species' recovery. *See, e.g.*, *Wild Fish Conservancy v. Salazar*, 628 F.3d 527, 513 (9th Cir. 2010) (finding jeopardy analysis inadequate in part because it did not identify the recovery "tipping point" and whether that threshold would be crossed by the proposed action); *Nat'l Wildlife Fed'n*, 524 F.3d at 936 (finding jeopardy analysis unlawful for failing to address recovery of the listed species or the in-river survival levels necessary to support recovery); *S. Yuba River Citizens League v. Nat'l Marine Fisheries Serv.*, 723 F. Supp. 2d 1247, 1266-67, 1275 (E.D. Cal. 2010) (finding jeopardy analysis inadequate because it did not "discuss (through some method) the magnitude of the stressors' impact, the populations' ability to tolerate this impact, and the reason why any decline will not reduce the overall likelihood of survival *or recovery*" (emphasis added)); *Pac. Coast Fed'n of Fishermen's Ass'ns v. Gutierrez*, 606 F. Supp. 2d 1122, 1171 (E.D. Cal. 2008) (finding recovery analysis inadequate because "NMFS conclusory [sic] mentions but does not analyze the effects of Project actions on the recovery of the springrun Chinook species"); *Nat. Res. Def. Council v. Rodgers*, 381 F. Supp. 2d 1212, 1233-34 (E.D. Cal. 2005) (finding recovery analysis arbitrary that generically discussed recovery but failed to analyze impacts to the species' critical habitat).

The statute, regulations, and caselaw make clear that to satisfy its mandatory duty to ensure against jeopardy, FWS must demonstrate that the effects of a proposed action will not impair the species' chances of recovery. Whether an action pushes a species across the jeopardy threshold depends on both the magnitude of the species' pre-existing status and the action's additional impacts. *Nat'l Wildlife Fed'n*, 524 F.3d at 936 (holding that consulting agencies must consider whether harm from a proposed action, when added to baseline conditions, threatens to "tip[]" listed species "too far into danger," thereby "reduc[ing] the odds of success for future recovery planning"). Thus, for the jeopardy analysis to be meaningful, FWS must first determine whether the species' survival and recovery are already compromised before it can conclude that the species can withstand additional harm—i.e., FWS must first determine the current status of the species in relation to "independent or baseline harms." *See id.* at 929-31. Only if FWS concludes that the species' baseline condition does

not threaten its survival and recovery may the agency proceed to determine whether the additional effects of the proposed action will result in jeopardy. *Id.*

Absent an objective metric for determining the point at which recovery (or survival) is compromised, the duty to insure against jeopardy becomes a meaningless exercise. Accordingly, to satisfy its obligations under the ESA, FWS "must logically know the rough survival and recovery needs (i.e., 'tipping points')" to determine whether the action will cause the species to reach that tipping point and cross the threshold into jeopardy. *Nat'l Wildlife Fed'n*, 524 F.3d at 936. Indeed, unless FWS "knows roughly at what point survival and recovery will be placed at risk," it is impossible for FWS to "conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded." *Id.* at 936. Even projects with seemingly minor impacts may jeopardize a species whose baseline status is severely degraded. A tipping point analysis thus prevents "a 'death by a thousand pinpricks' by determining if an agency action with a small overall effect will push a species across the line to eventual extinction, or past a point from which recovery is impossible." *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 441 F. Supp. 3d 843, 857 (D. Ariz. 2020); *see also Oceana v. Pritzker*, 75 F. Supp. 3d 469, 491 (D.D.C. 2014) (where "baseline conditions are already dire, then even a small additional impact due to [the proposed action] may require a jeopardy determination").

The 2023 Sacramento BiOp provides no tipping point.

Additionally, FWS then reaches the following arbitrary, disingenuous and unlawful conclusion:

> "[a]fter reviewing the current status of the jumping mouse, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the endangered New Mexico meadow jumping mouse because there are 8 other more robust and secure populations within the jumping mouse range."[92]

In reality, there are no "robust and secure" NMMJM populations.

Indeed, FWS itself observes in its January 30, 2020, NMMJM Species Status Assessment that **NMMJM is currently only found in eight isolated and widely separated areas throughout the Southwest, none of which are likely viable without major management changes**:

> "Nearly all of the current populations are isolated and widely separated, and all of these populations are likely within patches of suitable habitat too small to support resilient populations of the jumping mouse. Therefore, ***the New Mexico meadow jumping mouse likely does not currently have the number and distribution of resilient populations needed to provide the levels of redundancy and representation (genetic and ecological diversity) for the subspecies to demonstrate high viability***."[93] (Emphasis added.)

[92] Ibid., page 84.
[93] Species Status Assessment Report for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), Prepared by the U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 1st Revision, January 30, 2020, page iv,

FWS also observes that the survival of each and every surviving population is critical for NMMJM recovery (***emphasis added***):

> "***The New Mexico meadow jumping mouse needs to have multiple resilient populations distributed throughout different drainages within the eight geographic management areas to have high viability***."[94] …
>
> "***Conservation of the subspecies requires the restoration of habitat within each of the eight geographic management areas*** to provide areas for local populations to expand and become established."[95]

FWS has even specifically recognized the critical nature and importance of NMMJM protection, survival, and recovery in the Sacramento Mountains (***emphasis added***):

> "***We found that the conservation of the subspecies requires increasing the number and distribution of populations of the jumping mouse to allow for the restoration of new populations and expansion of current populations into areas that were historically occupied within the Jemez Mountains, Sacramento Mountains, and the middle Rio Grande***."[96]

And to make FWS's 2023 Sacramento BiOp lie even more disingenuous, since the January 30, 2020, FWS NMMJM Species Status Assessment, NMMJM has continued to suffer demise outside of the Lincoln National Forest.

NMMJM designated Critical Habitat on the western Apache-Sitgreaves National Forest in the Black River Watershed has been overrun and continues to be extensively damaged by feral horses still invading the watershed from the adjoining White Mountain Apache Tribal lands.[97]

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https://ecos.fws.gov/ServCat/DownloadFile/211849.; Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse; Final Rule; Federal Register, Volume 81, Number 51, March 16, 2016, https://www.fws.gov/sites/default/files/federal_register_document/2016-05912.pdf, page 14296.

[94] Species Status Assessment Report for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), Prepared by the U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 1st Revision, January 30, 2020, page iii.

[95] Ibid., page iv.

[96] Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the New Mexico Meadow Jumping Mouse; Final Rule; Federal Register, Volume 81, Number 51, March 16, 2016, page 14296.

[97] Email, From: Robin Silver, To: USDA Secretary Tom Vilsack, USFS Chief Randy Moore, USFS Regional Forester Michiko Martin, Acting USFS Regional Forester Elaine Kohrman, USFS Regional Range and Wildlife Manager Robert Trujillo, Apache-Sitgreaves Forest Supervisor Judith Palmer, Apache-Sitgreaves Deputy Forest Supervisor Ericka Luna, Subject: FERAL HORSES CONTINUE DESTRUCTION OF WHITE MOUNTAINS MEADOWS AND STREAMS CAUSING LOCAL EXTINCTION, July 21, 2022, https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/a-s-20220721-email-to-USDA_FS-re-FERAL-HORSES-CONTINUE-DESTRUCTION-OF-WHITE-MOUNTAINS-MEADOWS-AND-STREAMS-CAUSING-LOCAL-EXTINCTION.pdf.; Email, From: Robin Silver, To: Tom Vilsack; Randy Moore (randy.moore@usda.gov); Martin, Michiko -FS, ALBUQUERQUE, NM; Palmer, Judith -FS, SPRINGERVILLE, AZ; Luna, Ericka - FS; Fink, Ralph -FS; Kohrman, Elaine B -FS; Trujillo, Robert - FS; Madrid, Anthony -FS; Martha Williams; Lueders, Amy L; Whitlaw, Heather, Subject: FERAL HORSES ON THE APACHE NATIONAL FOREST CONTINUE DESTROYING ENDANGERED SPECIES CRITICAL HABITAT, November 27, 2022, https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/a-s-20221127-EMAIL-COMPLAINT-TO-USFS-OFFICIALS-re-FERAL-HORSES-ON-THE-APACHE-NATIONAL-FOREST-CONTINUE-DESTROYING-ENDANGERED-SPECIES-CRITICAL-HABITAT.pdf.; Email, From: Robin Silver, To: Tom Vilsack (AgSec@usda.gov); Randy Moore (randy.moore@usda.gov); Chris French (chris.french@usda.gov); Michiko Martin (michiko.martin@usda.gov); Robert G. Trujillo PhD (robert.trujillo@usda.gov); Anthony Madrid (anthony.madrid@usda.gov); Robert Lever (robert.lever@usda.gov); Deb Haaland (exsec@ios.doi.gov); Katherine P. Kelly (Kate_Kelly@ios.doi.gov); Martha Williams (martha_williams@fws.gov); Amy Lueders (RDLueders@fws.gov); Heather Whitlaw (Heather_Whitlaw@fws.gov), Subject: FERAL HORSES STILL DESTROYING ENDANGERED NMMJM CRITICAL HABITAT ON APACHE NATIONAL FOREST IN ARIZONA, July 5, 2023, https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/a-s-20230705-FERAL-HORSES-STILL-DESTROYING-

In addition, NMMJM Critical Habitat at the Bosque del Apache is showing significant decline where "[t]he current extent of estimated habitat at the Refuge is well below the size recommended by the Species Status Assessment for the jumping mouse to ensure the continuation of the species at a location"[98] and where "[t]his restricted habitat indicates that this population is vulnerable to extirpation."[99]

Summary of Violations With Respect to the NMMJM

As explained above, the 2023 Sacramento BiOp—and the Forest Service's reliance on the BiOp—violate Sections 7 and 9 of the ESA in many distinct ways. In addition, the Forest Service and FWS's conclusions in the BiOp violate the ESA and the APA in the following respects.

First, the FWS's conclusions in the 2023 Sacramento BiOp that the proposed action would not jeopardize the jumping mouse's survival or recovery prospects, and would not destroy or adversely modify its critical habitat, were grounded in a highly skewed characterization of the proposed action that relied heavily on the purported benefits that may eventually accrue if the Forest Service implements certain adaptive management actions, which may not occur for three more grazing seasons at the earliest. Indeed, the BiOp proposes to use the three-year *average* utilization across critical habitat, which effectively masks the importance of key habitat areas (e.g., habitat adjacent to unoccupied habitat). Only if the average utilization is exceeded will the Forest Service even *consider* reducing stocking levels. Notably, the Forest Service is not *required* to reduce stocking levels when utilization standards are exceeded, but must only implement yet-to-be-described "adaptive management actions."[100] Nowhere in the 2023 Sacramento BiOp did the FWS analyze, as it must, whether the proposed action will jeopardize the species' survival or recovery prospects, or destroy or adversely modify its critical habitat, in the three grazing seasons (or more) in which there will be merely a continuation of the status quo in grazing management in this allotment. Given the FWS's acknowledgment of the dire status of the species in the Allotment, it is especially glaring that the FWS failed to candidly confront the fact that the proposed action includes at least three grazing seasons upfront—before any purported benefits may accrue—that could, and likely will, extirpate the small extant population of jumping mice in the Sacramento Allotment. Indeed, in light of years of extensive and repeated incursions into exclosures in this allotment, coupled with years of repeated failures by the Forest Service to comply with the grazing utilization standards required by the 2016, 2018, and 2021 Sacramento BiOps both within and outside exclosures, the failure even to acknowledge this crucial aspect of the proposed action and to analyze its effects for jeopardy and adverse modification purposes is flagrant. Accordingly, the 2023 Sacramento BiOp and the Forest Service's reliance upon it violate the agencies' procedural and substantive obligations under ESA Section 7(a)(2), including the requirements to ensure against jeopardy and the destruction or adverse

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ENDANGERED-NMMJM-CRITICAL-HABITAT-ON-APACHE-NATIONAL-FOREST-IN-ARIZONA.pdf.; Email, From: Robin Silver, To: Robert Lever (robert.lever@usda.gov); Anthony Madrid (anthony.madrid@usda.gov); Robert G. Trujillo PhD (robert.trujillo@usda.gov); Michiko Martin (michiko.martin@usda.gov), Subject: HORSES STILL IN ENDANGERED NMMJM CH IN BOGGY CREEK APACHE-SITGREAVES NF AND NOW COWS ARE THERE ALSO, August 11, 2023, https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/a-s-20230811-HORSES-STILL-IN-ENDANGERED-NMMJM-CH-IN-BOGGY-CREEK-APACHE-SITGREAVES-NF.pdf.

[98] Tracking Spatial and Temporal Habitat Changes for an Endangered Rodent, Sarah Lehnen, 2021, https://eros.usgs.gov/doi-remote-sensing-activities/2021/fws/tracking-spatial-and-temporal-habitat-changes-endangered-rodent.

[99] Camera-Based Monitoring of the New Mexico Meadow Jumping Mouse at Bosque del Apache National Wildlife Refuge, Sarah Lehnen, August 2018, https://biologicaldiversity.org/species/mammals/New-Mexico-meadow-jumping-mouse/pdfs/report-20180800-Camera-Based-Monitoring-of-the-New-Mexico-Meadow-Jumping-Mouse-at-Bosque-del-Apache-National-Wildlife-Refuge-LEHNEN.pdf.

[100] 2023 Sacramento BiOp at 116-18.

modification of critical habitat, as well as the duty to rely upon the best available scientific evidence of the foreseeable impacts of the proposed action. *See* 16 U.S.C. § 1536(a)(2).

Second, the 2023 Sacramento BiOp and its findings of no jeopardy and no destruction or adverse modification of critical habitat are based in part on the unwarranted assumption that the Forest Service will ensure that specified grazing utilization standards are met within and outside of exclosures in the Sacramento Allotment. But the FWS failed to explain how the FWS (or the public) can realistically expect the Forest Service to ensure compliance with grazing utilization standards in this allotment when extensive evidence from prior grazing seasons establishes a uniform pattern of non-compliance with these standards both within and outside of exclosures, as the FWS itself extensively documented in the 2023 Sacramento BiOp.[101] In the absence of any explanation by the Forest Service or the FWS as to how the Forest Service will be significantly modifying its management actions and behavior from the status quo—and faced with the FWS's own evidence of the Forest Service's repeated violations of the same grazing utilization standards that are part of the proposed action—FWS's conclusions regarding jeopardy and destruction or adverse modification of critical habitat while relying on this obviously inaccurate assumption is arbitrary, capricious, and unlawful under Section 7(a)(2) of the ESA. *See* 16 U.S.C. § 1536(a)(2).

Third, FWS's conclusion that the proposed action would not jeopardize the NMMJM's survival or recovery prospects and would not destroy or adversely modify its critical habitat violates the legally required standard to use "the best scientific . . . data available."[102] For example, FWS has long maintained that the use of a 35% forage utilization standard within jumping mouse critical habitat located outside exclosures, is "detrimental to sustaining functional jumping mouse habitat and populations outside of exclosures because grazing to this use level reduces the availability of forage, increases risk of predation by removing vegetative cover, alters riparian habitat conditions through streambank trampling, soil compaction, and modification of vegetative communities, and alters microclimates from moist habitats to mesic or xeric habitats."[103] However, once again, the agencies determined that the use of the 35% utilization standard and the same conservation measures that have repeatedly failed to achieve habitat recovery will not adversely affect the NMMJM's survival or recovery, or adversely modify its critical habitat. This illogical conclusion is inconsistent with the extensive evidence from prior grazing seasons that the use of the 35% utilization standard has entirely *failed* to achieve the necessary habitat conditions to support NMMJM survival, much less recovery.

Relatedly, the FWS violated its obligations under the ESA (as did the Forest Service in relying on the 2023 Sacramento BiOp) by failing to explain how the use of a 35% grazing utilization standard outside of exclosures—which equates to approximately 4 inches of vegetation height, far below the 24 inches required for NMMJM habitat—can avoid jeopardy and/or destruction or adverse modification of critical habitat. The failure to reconcile—or even address—these inconsistent findings violates Section 7 of the ESA, its implementing regulations, and is arbitrary and capricious. Compounding these errors, the BiOp only requires that the Forest Service "implement [unidentified] adaptive management actions" once the utilization standard is exceeded in critical habitat outside exclosures "based on a 3-year rolling average."[104] Not only does this blanket requirement that all critical habitat adhere to a standard that FWS has previously determined to be "detrimental" to

[101] 2023 Sacramento BiOp at 53 ("Stubble height data from 2016-2023 also showed that many key areas did not meet the minimum stubble height requirements. Similarly, during 2016-2023, many key areas within the summer pasture units exceeded forage/range guidelines").
[102] 16 U.S.C. § 1536(a)(2).
[103] 2021 Sacramento Allotment BiOp at 71.
[104] Ibid., page 115.

NMMJM populations and habitat fail to account for the relative importance of certain areas of critical habitat (e.g., areas adjacent to occupied habitat), it also amounts to a "wait and see" approach, whereby the Forest Service can allow utilization to exceed the 35% threshold in certain areas or even in certain years without violating the BiOp's terms. At no point does the BiOp examine the interim effects of this delay on NMMJM recovery, survival, or critical habitat. This is not surprising, as any delay in implementing defined and *effective* protections for severely degraded habitat supporting a population that is teetering on the brink of extirpation is contrary to the extensive evidence before the agencies regarding the dire status of this population and the species as a whole. Accordingly, the 2023 Sacramento BiOp cannot reconciled with the agencies' duties to use "the best scientific . . . data available,"[105] and to provide the "benefit of the doubt" to endangered species.[106]

Additionally, FWS's conclusion that the proposed action would not jeopardize the NMMJM's survival or recovery prospects fails to account for the crucial fact that "recent morphological tests convey the potential that the Sacramento Mountains population of jumping mice may be morphologically distinct and significantly different than other jumping mice populations," and in fact, "may be a separate subspecies."[107] The BiOp further acknowledges that the "uniqueness of the Sacramento Mountains jumping mouse population may inhibit future reintroduction or translocation efforts using individuals from other jumping mouse populations and mixing of individuals between populations should likely be avoided."[108] Yet, FWS never grapples with the importance of *this* subpopulation to the NMMJM's survival or recovery prospects. Nor does the agency address the impacts of the likely loss of this subpopulation to the species' survival or recovery.

Fourth, the FWS's no jeopardy conclusion is arbitrary because it acknowledges both that "the proposed action may lead to the extirpation of the jumping mouse population in critical habitat unit 4B (Upper Rio Peñasco) and 4D (Wills Canyon), and potentially throughout the entire critical habitat unit 4 (geographic unit Sacramento Mountains) if the proposed actions and associated conservation measures are not implemented fully by the Forest [Service]," and that "the loss of the jumping mouse population on the Sacramento Mountains . . . *would inhibit natural recovery of the species based on the current recovery plan criteria*."[109] Yet, despite extensive evidence that continued livestock grazing has resulted in a precipitous decline of the NMMJM population in the Sacramento Mountains—to the point of near-extirpation *before* the proposed action—the FWS makes no attempt to quantify the probability that the proposed action, based on past evidence, will result in the loss of this population and, by the FWS's own measure, "inhibit natural recovery of the species" and therefore cause jeopardy.[110]

Nor is there any attempt by the FWS to reconcile its no jeopardy conclusion (which, by definition, includes the conclusion that the proposed action will not impair the NMMJM's recovery) with the recovery criteria set forth in the agency's own NMMJM recovery plan, which explains that "[t]o recover the [NMMJM], occupied [areas] within each of the" species' geographic units "*must*

[105] 16 U.S.C. § 1536(a)(2).
[106] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.; Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); and, U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.; and, *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).
[107] *Id.* at 23.
[108] *Id.*
[109] 2023 Sacramento BiOp at 85 (emphasis added).
[110] *Id.*

possess healthy, resilient populations."[111] Even before the proposed action, the Sacramento Mountains NMMJM population *cannot* be fairly characterized as healthy or resilient, due in large part to continued livestock grazing in occupied and unoccupied NMMJM habitat in the Sacramento Allotment. Thus, the NMMJM's recovery is *already* severely impaired—according to the FWS's own definition of NMMJM recovery in its recovery plan—and yet the FWS has authorized additional harm to this population through the proposed action, without explaining how the action will only further degrade a population (and likely extirpate it) in a manner that is fundamentally at odds with the FWS's own understanding of the species' recovery needs. In this manner as well, the FWS failed to identify the recovery "tipping point" and apply that to the NMMJM by identifying its pre-action condition and considering whether, either before or including the proposed action, the NMMJM crosses the jeopardy threshold thus requiring the FWS to reach a jeopardy (rather than a no jeopardy) conclusion.

Fifth, with respect to NMMJM, FWS failed in its 2023 Sacramento BiOp to include a legally adequate environmental baseline analysis. For example, FWS excluded from its environmental baseline evaluation grazing activities on the nearby Agua Chiquita allotment, a federal activity. Grazing activities on the Aqua Chiquita Allotment affect critical habitat within the same geographic area and could impact the population's ability to recover and recolonize critical habitat. This failure violates the ESA, which requires consideration of the environmental baseline in any evaluation of an activity that will adversely affect an endangered species or its Critical Habitat.[112]

Relatedly, the FWS's no jeopardy conclusion is arbitrary, capricious, and unlawful, as is the Forest Service's reliance on it to comply with its own substantive obligation to avoid jeopardizing a listed species. Further, the no jeopardy conclusion is fatally flawed for several other reasons as well. For example, the 2023 Sacramento BiOp fails to even consider (let alone determine) whether the baseline condition of the jumping mouse across its range, in this management unit, and/or in the Lincoln National Forest is currently jeopardized, prior to the implementation of the proposed action that will only appreciably worsen its condition at every scale.

Likewise, the 2023 Sacramento BiOp fails to determine the tipping point or dividing line at which the jumping mouse—whether at the range-wide, management unit, or Lincoln National Forest scale—cannot withstand any additional take without resulting in (or causing additional) jeopardy to the species, as required by the ESA, particularly given the fact that this subpopulation is genetically unique. Indeed, perhaps most glaring is the lack of any analysis in the 2023 Sacramento BiOp evaluating the likelihood that either or both of the small, isolated extant populations of jumping mice in the Sacramento Allotment will be extirpated during the course of the proposed action, and in particular before any purported benefits may begin to accrue to the species after at least three more seasons of livestock grazing. Indeed, had the FWS confronted this question as it was required to do, it would have been impossible to explain how extirpating either or both of these populations does not appreciably diminish the species' recovery efforts, especially in light of the FWS's own findings in its 2020 SSA that the jumping mouse is "particularly vulnerable to extinction," *id.* at 117—"from

[111] FWS, NMMJM Recovery Plan (Jan. 2023) at 10, https://ecos.fws.gov/docs/recovery_plan/Final%20Recovery%20Plan%20NM%20Meadow%20Jumping%20Mouse%20January%202023.pdf (emphasis added).

[112] 50 CFR § 402.2: "Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline."

both random and nonrandom catastrophic natural or human-caused events," *id.* at 121—and thus that "*the subspecies' overall viability is low*, given the ongoing and likely future losses of habitat in conjunction with the small and isolated nature of currently-known populations," because "the status of the subspecies has been reduced to the point where *individual populations are vulnerable to extirpation*." *Id.* at 118-19 (emphases added). In the absence of these legally required analyses—or any attempt to explain how the proposed action does not result in jeopardy in light of the FWS's own recent findings about the species' substantial extinction risk—the 2023 Sacramento BiOp and no jeopardy conclusion (and the Forest Service's reliance on it) fundamentally violates the Section 7(a)(2) prohibition against jeopardy, as well as the FWS's obligations to analyze the environmental baseline and the effects of the proposed action when added to baseline conditions, and the FWS's duty to rely upon the best available scientific evidence in assessing whether an action will result in jeopardy. *See* 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.14(g).

Sixth, for the reasons stated above, the FWS's conclusion that the proposed action will not destroy or adversely modify jumping mouse critical habitat is arbitrary, capricious, and unlawful, as is the Forest Service's reliance on it to comply with its own substantive adverse modification obligation. This conclusion is fatally flawed for several other reasons as well. For example, while documenting the severe harm caused by livestock to jumping mouse critical habitat in recent years (which will continue for at least three more years), the FWS rejected the possibility that the proposed action will destroy or adversely modify critical habitat based on a simplistic calculation that the unfenced portion of critical habitat comprises only 2% of "the total amount of designated critical habitat for the species range wide."[113] But this overly simplistic calculation fails to address important questions including: (1) whether the occupied status of this critical habitat by one of the few remaining populations of the jumping mouse elevates the importance of this habitat over unoccupied portions of critical habitat; (2) whether this critical habitat has elevated importance for the separate reason that if these two small extant populations are lost, jumping mice will be completely extirpated from the Lincoln National Forest; and (3) whether the extensive degradation of this important, occupied critical habitat will have disproportionately significant impacts on the species' critical habitat at the unit or subunit scale. In fact, the FWS's facile mathematical calculation avoids conducting the necessary analysis, and in the process masks the significance of localized (but highly consequential) effects of the proposed action by only considering the larger scale of the whole critical habitat designation to the exclusion of the significant effects occurring at the smaller scale of this single allotment, in the Lincoln National Forest, and/or in this critical habitat subunit or unit. Such an outcome is completely at odds with Section 7(a)(2) of the ESA and its implementing regulations, and the FWS's critical habitat conclusion (and the Forest Service's reliance on it) is illegal, arbitrary, and capricious for these reasons as well.

Relatedly, to the extent that the FWS's failure to seriously consider the localized impacts to jumping mouse critical habitat in the Sacramento Allotment merely due to its small size relative to the overall critical habitat designation (much of which is comprised of unoccupied habitat) is based on an application of the FWS's new regulations promulgated in 2019, the relevant provision violates the ESA both facially and as applied to this action. *See* 50 C.F.R. § 402.02 (2019) (defining destruction or adverse modification as "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species" (emphasis added)); 84 Fed. Reg. 44,976, 44,983-85 (Aug. 27, 2019) (discussing the addition of "as a whole" to the definition). Simply put, the additional requirement that destruction or adverse modification be analyzed only relative to the whole critical habitat designation can, as here, mask extremely

[113] 2023 Sacramento BiOp at 76; *see also id.* at 84 (same).

significant localized impacts in the most important of occupied habitat simply because in relative terms the critical habitat size is "small" compared to the overall designation, which may include significant amounts of unoccupied habitat. Hence, although the FWS has itself previously stated that "the size or proportion of the affected area is not determinative; impacts to a smaller area may in some cases result in a determination of destruction or adverse modification, while impacts to a large geographic area will not always result in such a finding,'' 84 Fed. Reg. at 44,983, the FWS did not even attempt in the 2023 Sacramento BiOp to analyze and determine whether the inevitable impacts to the affected critical habitat, which supports the last two small extant populations of jumping mice in the Lincoln National Forest, would constitute destruction or adverse modification, despite their small size relative to the overall critical habitat designation. The failure to conduct this analysis is especially egregious in light of the FWS's own finding in prior BiOps that these areas "are extremely important and are a crucial part in the survival and recovery of the jumping mouse."[114] Accordingly, for these reasons as well, the conclusion that the proposed action will not destroy or adversely modify critical habitat—including the FWS's reliance on and application of its new critical habitat regulation—is arbitrary, capricious, and violates the ESA and its implementing regulations.

Seventh, to make matters worse, the 2023 Sacramento BiOp uses arbitrary metrics as surrogates for the NMMJM take threshold.[115] An ITS must set forth a "trigger" that, when reached, results in an unacceptable level of incidental take, requiring a re-initiation of consultation.[116] The BiOp establishes two reinitiation triggers for the proposed action: (1) where "[p]ermitted numbers of livestock . . . exceed 412 head of livestock . . . during the summer grazing season" or "330 head of livestock . . . during the winter grazing season"; and (2) where more than "20% of *all* designated critical habitat within permanent exclosures—i.e., approximately 65 acres of the 327 acres within exclosures—"is temporarily (less than 1 year) altered by unauthorized livestock use (i.e., incursions) . . . each year."[117] These triggers violate the ESA and the APA. Perhaps most egregiously, the ITS is arbitrary because its triggers for reinitiation are not tied to the amount of habitat destroyed or altered. If a surrogate is used, as is the case here, FWS must "articulate a rational connection between the surrogate and the taking of the species."[118] The 2023 Sacramento BiOp articulates no rational connection between the surrogate and the taking of NMMJM. In fact, the reinitiation triggers do not turn on the NMMJM's actual habitat requirements (i.e., dense vegetation at least 24 inches high) *at all*. Instead, they are tied to a stocking level that and an exclosure use level that is meaningless to NMMJM persistence and conservation. At no point does the ITS establish a minimum vegetation height for critical habitat within or outside of exclosures. Because the triggers do not actually establish whether take—i.e., the destruction or degradation of suitable NMMJM habitat to render it non-functional or minimally functional—has occurred, FWS failed to "articulate a rational connection between the surrogate and the taking of the species."[119] Likewise, there is no explanation as to why the FWS chose a 20% alteration threshold for all designated critical habitat as a basis for reinitiation of consultation (as opposed to a more conservative, protective standard such as 5% or 10%), let alone any explanation for the selection of this 20% alteration as tied to the specific life cycle or recovery needs of the NMMJM.

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[114] 2021 Sacramento BiOp at 70.
[115] 16 U.S.C. § 1532(19): "The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."
[116] *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv.*, 273 F.3d 1229, 1249 (9th Cir. 2001).
[117] 2023 Sacramento BiOp at 90.
[118] *Wild Fish Conservancy v. Salazar*, 628 F.3d 513 (9th Cir. 2010).
[119] *Wild Fish Conservancy*, 628 F.3d at 531.

Eighth, because new consultation is required to address the serious deficiencies in the 2023 Sacramento BiOp (including a failure to ensure against jeopardy and destruction or adverse modification of critical habitat), Section 7(d) imposes an obligation on the Forest Service to avoid "mak[ing] any irreversible or irretrievable commitment of resources" until such consultation is lawfully completed. Accordingly, the Forest Service's current grazing authorization for the Sacramento Allotment—which is based on a fatally flawed BiOp—violates Section 7(d) of the ESA and must be immediately suspended until a lawful consultation is completed. *See* 16 U.S.C. § 1536(d).

Ninth, because the 2023 Sacramento BiOp is severely deficient in several respects and fails to candidly assess or lawfully authorize the foreseeable effects of the proposed action, the Forest Service is in ongoing violation of Section 9 of the ESA by authorizing activities that—as was the case under similar conditions pursuant to the 2016, 2018, and 2021 Sacramento BiOp—are taking jumping mice in myriad ways and destroying and adversely affecting jumping mouse critical habitat in the Sacramento Allotment. Because the Forest Service lacks legally adequate authorization from the FWS to take jumping mice or harm its critical habitat in light of the highly deficient nature of the 2023 Sacramento BiOp, the Forest Service's actions are in ongoing—and significant—violation of the Section 9. *See* 16 U.S.C. § 1538(a)(1)(B).

VIOLATIONS REGARDING THE MEXICAN SPOTTED OWL

Similarly, as with NMMJM, the Forest Service/FWS officials treat Mexican Spotted Owl ("MSO") just as unprofessionally and without respect for and compliance with the protective laws and legal precedents intended to protect endangered species and their designated Critical Habitat.

There are 52 MSO Primary Activity Center ("PACs") on the Sacramento allotment. There are 22 PACs on the Agua Chiquita allotment.

Both allotments' ranchers treat any restrictions within MSO Critical Habitat with the same aggressive distain as they do with those in NMMJM Critical Habitat, even if the restrictions are inappropriately inadequate.

The 2023 Sacramento BiOp documents this behavior by the Sacramento Allotment permittee:

> "Forage utilization levels in meadow habitat has been exceeded regularly since 2001 (USFS 2007a, 2010f, 2012b, 2013b, 2015, 2018, 2019, 2020, 2021, 2022, 2023b). Specifically, from 1991 through 2006, forage utilization in most key areas on the summer range averaged between 70-81% (Service 2016b). In 1994 and 1995, forage use levels in the Alamo Pasture were observed to be between 50 and 70 percent (Service, 2016b). Many key areas did not meet or maintain leaf length, herbaceous ground cover height or utilization guidelines (Service 2016b). During 2005, 2006, 2007, and 2010 forage use on key areas exceeded the forage/range guidelines needed for MSO and its prey base (Service, 2016b). Stubble height monitoring indicated utilization for the 2011-2015 grazing years averaging greater than 50% in key areas of the allotment with a downward trend (Service 2016b). During 2016-2022 many key areas within the

> summer pastures exceeded use levels needed by MSO and its prey base (USFS 2016b, 2017, 2018, 2019, 2020a, 2021, 2022, 2023)."[120]

Similarly on the Agua Chiquita allotment, even though less information is available owing to the Forest Service/FWS historical refusal to formally consult on the allotment, the 2023 Agua Chiquita Biological Assessment does observe:

> "…in small meadow areas in MSO CH or PACs, stubble heights were low (well under 4 inches in each of four seasons sampled). Heights were below 2 inches in all areas in the first sampling periods and remained below 3 inches at most site-sample period combinations from the mid-monsoon to post grazing periods."[121]

This abusive behavior is consistent with what we have observed in NMMJM Critical Habitat on the Agua Chiquita allotment over the years.[122]

The importance of forest meadow habitat for MSO recovery has been well established.

Excerpts from the 1995 Recovery Plan regarding the importance of forest meadows to Mexican Spotted Owl follow:

> "…meadow and shrub habitats vital to the owl's prey."[123]
>
> "Key grazing areas are primarily riparian areas, meadows, and oak types."[124]
>
> "In summary, the two studies indicate that the owl's food resources are quite variable among vegetation communities and through time. Arranging the four vegetation communities examined in these two studies in descending amount of summer prey biomass indicates that meadows> mixed-conifer forest> ponderosa pine-pinyon-juniper-oak woodlands > ponderosa pine-Gambel oak forest." …[125]
>
> "In the Sacramento Mountains, the greatest prey biomass is found in high-elevation meadows occurring along riparian corridors."[126]
>
> "Arranging the four vegetation communities according to summer prey biomass indicates that meadows > mixed-conifer forest > ponderosa pine-pinyon-juniper-oak woodlands > ponderosa pine-Gambel oak forest. …

[120] 2023 Sacramento BiOp, page 62.
[121] 2023 Agua Chiquita Biological Assessment, page 34.
[122] Sixty-Day Notice of Endangered Species Act Violations, Lincoln National Forest, September 13, 2019, https://www.biologicaldiversity.org/species/mammals/pdfs/lnf-NOI-20190913-NMMJM-REININITIATION-FINAL.pdf.; Sixty-Day Notice of Endangered Species Act Violations, Lincoln National Forest, June 4, 2021, https://www.biologicaldiversity.org/species/mammals/pdfs/lnf-NOI-20210604-NMMJM-REININITIATION-FINAL.pdf.
[123] Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), FWS, December 1995, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/RECOVERY-PLAN-Mexican-Spotted-Owl-199512-PRINT.pdf, Volume I/ Part II, page 74.
[124] Ibid., page 96.
[125] Ibid., Volume II Chapter 5, page 28.
[126] Ibid., page 44.

> Rearranging the same communities according to winter prey biomass indicates that meadows > ponderosa pine-pinyon-juniper-oak woodlands > ponderosa pine-Gambel oak forest > mixed conifer forest."[127]

Excerpts from the revised 2012 Recovery Plan regarding the importance of forest meadows to Mexican Spotted Owl follow:

> "Given the relationships among key habitat variables and common prey abundance, shorter term management also should include fostering good to excellent conditions in key grazing areas (e.g., montane meadows) to ensure adequate vole populations near and within owl foraging areas.[128]

> "…in order to provide for recovery of the spotted owl and adequate protection of its habitat, livestock management within the owl habitat should be designed with the following objectives: 1) to maintain or enhance prey availability; 2) to maintain potential for beneficial surface fires while inhibiting potential for destructive stand-replacing fire; and 3) to promote natural and healthy riparian, meadow, and upland plant communities including their functional processes.[129]

Nonetheless, in the Sacramento Mountains, the Forest Service and FWS consider 4-in stubble height and 35% forage utilization suitable for protection of Mexican Spotted Owls and their prey base in forest meadow habitat. This is not appropriate.

A 4-in stubble height and 35% forage utilization are not appropriate for MSO Critical Habitat in the Sacramento Mountains based on the facts that (1) FWS scientists, including Dr. Shawn Sartorius, New Mexico FWS State Director and signer of the 2023 Sacramento BiOp, acknowledge that the Forest Service Range Program cow grazing promotion metrics such as utilization and stubble height do not protect endangered species;[130] that (2) the prey base and its resulting influence on fecundity success for owls in the Sacramento Mountains is different than for owls elsewhere;[131] and, that (3) the use of these cow grazing promotion metrics to "protect" Mexican Spotted Owl violates the ESA mandate that "each agency shall use the best scientific … data available."[132]

Examples from the 1995 Mexican Spotted Owl Recovery Plan, still representing "the best scientific … data available," but inappropriately omitted from the 2023 Sacramento BiOp follow:

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[127] Ibid., Volume II/Chapter 5 page 44.
[128] Mexican Spotted Owl Recovery Plan, First Revision (*Strix occidentalis lucida*); Southwest Region U.S. Fish and Wildlife Service; Albuquerque, New Mexico; September 2012, page 212, https://ecos.fws.gov/docs/recovery_plan/MSO_Recovery_Plan_First_Revision_Dec2012.pdf.
[129] Ibid., page 289.
[130] Email from FWS biologist Susan Sferra to FWS biologists Jeff Servoss and Julie McIntyre, RE: suggestion from Shawn [Sartorius] on grazing BO, July 5, 2019, https://biologicaldiversity.org/programs/public_lands/grazing/pdfs/coronado-20190927-BIOLOGICAL-ASSESSMENT-20190705-EMAIL-FROM-SFERRA-to-SERVOSS-re-GRAZING-STANDARDS-ARE-INADEQUATE-Mail--Servoss-Jeff--Outlook16.pdf.
[131] Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), FWS, December 1995, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/RECOVERY-PLAN-Mexican-Spotted-Owl-199512-PRINT.pdf, Chapter 5: Mexican Spotted Owl Prey Ecology, James P. Ward, Jr., and William M. Block, Tables 5.1, 5.2, 5.3, 5.4, 5.5, and 5.6, .pdf pages 303-308.
[132] Endangered Species Act, 16 U.S.C. § 1536(a)(2).

> "The Team was unable to link consumption of specific prey and successful reproduction by the Mexican spotted owl, with two possible exceptions. First, **fecundity of spotted owls occupying the Sacramento Mountains (Basin and Range - East RU) appeared to be associated with trends in abundance of peromyscid mice** (Ward and Block 1995) …"[133]
>
> "No strong rangewide relationships appeared in our analyses of the owl's diet and reproduction. The relationship was positive and nearly significant when comparing the prevalence of the three most common prey (peromyscid mice, woodrats, and voles) in the diet and owl reproduction, implying that multiple species influence the owl's fitness. However, **this generalization may not apply to owls in the Sacramento Mountains where the owl's reproduction appears most influenced by deer mouse abundance**. …"[134]
>
> **In the Sacramento Mountains, the greatest prey biomass is found in high-elevation meadows occurring along riparian corridors. Common prey species occupying these meadows are long-tailed voles, Mexican voles, and deer mice**. …"[135]

Examples from the 2012 Mexican Spotted Owl Recovery Plan, also still representing "the best scientific … data available," but inappropriately omitted from the 2023 Sacramento BiOp follow:

> "***Grazing*.—**Heavy grazing intensity by domestic livestock and wild ungulates, repeated over successive seasons, can create a short to moderately long disturbance to vegetation that provides cover and food to the owl's prey, and it can influence both tree regeneration and dynamics and composition of understory vegetation in forests occupied by owls. Based on distribution of prey species and regional variation in the owl's diet (e.g., Ward and Block 1995), portions of the owl's range that are most susceptible to disturbance from heavy grazing include regions where Mexican spotted owls commonly consume voles, hunt near the edges of montane meadows allocated as key grazing areas, or where domestic livestock and wild ungulates are found grazing on forested slopes or in riparian habitats within canyons used by Mexican spotted owls. Only one study has specifically addressed effects of grazing by domestic livestock on Mexican spotted owls. This study examined small mammal abundance and diversity in adjacent grazed and ungrazed transects in two owl territories in the canyonlands of southern Utah. Both woodrat abundance and overall small mammal species diversity were greater in ungrazed than in grazed transects (Willey and Willey 2010). There also is circumstantial evidence that grazing may affect prey abundance and thus indirectly affect owls. The primary evidence here comes from 1) studies on impacts of livestock on

[133] Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), FWS, December 1995, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/RECOVERY-PLAN-Mexican-Spotted-Owl-199512-PRINT.pdf, page 28.
[134] Ibid., page 43.
[135] Ibid., page 44.

plant communities and the features of those communities that influence prey populations (described below under Prey Habitat), and 2) the influence of abundance of various prey species or groups of species on the owl's feeding habits and reproduction (described below under Diet and Prey Selection, and Effects of Prey on Vital Rates). For example, species such as voles (and, to a lesser extent, woodrats) that are highly dependent on herbaceous plants for cover, food, and water are found in much lower abundance where drought combines with successive seasons of heavy grazing intensity, without opportunity for plant development and recovery from grazing events. These species can provide important contributions to owl diets in some regions and years (Ganey 1992, Ward and Block 1995, Seamans and Gutiérrez 1999, Ward 2001, Ganey et al. 2011). Current evidence suggests that small mammal biomass (including voles and mice) influences Mexican spotted owl reproductive output (Ward 2001). Hence, grazing can negatively influence owl abundance indirectly by decreasing populations of key prey species."[136]

"Ward and Block (1995) retrospectively examined the link between abundance or consumption of specific prey and successful reproduction by Mexican spotted owls in the Sacramento Mountains, New Mexico (BRE EMU). They were not able to demonstrate strong relationships, but **fecundity of Mexican spotted owls in this region appeared to be most associated with trends in abundance of Peromyscid mice during the time period studied** (Ward and Block 1995)."[137]

"Ward (2001) expanded on the work in the Sacramento Mountains summarized in Ward and Block (1995), incorporating data from additional years. In this study, five species of rodents (deer mouse [*P. maniculatis*], brush mouse [*P. boylii*], Mogollon vole [*M. mogollonensis*], longtailed vole [*M. longicaudus*], and Mexican woodrat [*N. mexicana*]) provided from 53 to 77% of the diet by frequency and from 41 to 66% of the diet by biomass over a six-year period (1991 to 1996). **Mean number of Mexican spotted owl young produced annually over this period was most strongly correlated with the combined available biomass of mice and voles. More intriguing was that consumption of woodrats was proportionally lower in the Sacramento Mountains owl population than in seven other populations of spotted owls that were studied**, and temporal variability in owl reproduction was inversely related to the proportion of woodrats in the diet across these eight populations (Ward 2001: Fig. 4.7)."[138]

"Given the relationships among key habitat variables and common prey abundance, shorter term management also should include fostering good to

[136] Mexican Spotted Owl Recovery Plan, First Revision (*Strix occidentalis lucida*); Southwest Region U.S. Fish and Wildlife Service; Albuquerque, New Mexico; September 2012, pages 206-7, https://ecos.fws.gov/docs/recovery_plan/MSO_Recovery_Plan_First_Revision_Dec2012.pdf.
[137] Ibid., page 211.
[138] Ibid., page 211.

> excellent conditions in key grazing areas (e.g., montane meadows) to ensure adequate vole populations near and within owl foraging areas."[139]
>
> "In Ward's (2001) study in the Sacramento Mountains of southern New Mexico, Mexican spotted owls appeared to prefer Mexican woodrats, but the amount of woodrats consumed was not correlated with owl reproduction. Rather, **owl reproductive output across six years of study was correlated with the combined biomass of two species of Peromyscid mice and two species of voles in approximated home ranges of the owl**. Ward (2001) suggested that woodrats may be selected for by Mexican spotted owls because they provide a consistent staple for survival, and individual owls must survive before they can reproduce. Reproduction in this population, however, occurred when mice and voles were more abundant." … [140]
>
> "Mexican spotted owls in the Sacramento Mountains, New Mexico, consumed the lowest proportion of woodrat biomass and showed the highest variation in young produced over time (Ward 2001: Fig. 4.7)."[141]

Nonetheless, instead of protecting voles and deer mice for owls in the Sacramento Mountains, the Forest Service and FWS chose to continue non-applicable utilization and stubble height metrics that fail to protect voles and deer mice.

On June 28, 2021, I personally wrote to FWS New Mexico State Director Shawn Sartorius, in an email, "Subject: PLEASE CALL ROBIN SILVER ASAP re MISMATCH BETWEEN STUBBLE HEIGHT FOR COWS AND THE GRASS-FORB HEIGHT USED BY DOMINANT MSO PREY SPECIES":

> "Shawn. I have been looking at the habitat characteristics of Sacramento Mountains' primary MSO food sources, deer mice, long-tailed voles and Mexican voles. The 2012 Recovery Plan is pretty worthless except for generic gibberish. But the 1995 Recovery Plan is very helpful particularly in the summary Tables 5.12 (deer mice), 5.14 (long-tailed voles) and 5.15 (Mexican voles) from the CHAPTER *5:* Mexican Spotted Owl Prey Ecology, Ward and Block, pages 34, 36 and 37 respectively. These summary Tables find in the Sacramento Mountains "**Used…Grassforb height" habitat in meadows for deer mice, long-tailed voles and Mexican voles at (cm 19.8) [7.8 inches], (cm 21.3) [8.4 inches] and (cm 25.1) [9.9 inches] respectively**.
>
> Your April 20, 2021, Sacramento Allotment BO states: "Amount of Incidental Take…A minimum of 4-inches of stubble height shall be retained within designated critical habitat and Mexican spotted owl PACs, as determined by stubble height monitoring within established monitoring areas in PACs. [PAGE 110]

[139] Ibid., page 212.
[140] Ibid., page 226.
[141] Ibid., page 226.

> What am I missing here? While I have not found the minimum height of cover needed for a deer mouse, Mexican vole or long tailed vole to survive in a Sacramento Mountain forest meadow, the "used" habitat grass-forb height where the MSO prey species are captured is well above your BO's requirement of 4 inches of stubble height.
>
> Please call [redacted] ASAP to discuss as I would bet that the LNF [Lincoln National Forest] evaluators in the field currently are looking only for the BO's 4 inch stubble height in the meadow key areas to justify the continued grazing as opposed to looking for grass-forb height used by MSO dominant prey species per Ward and Block. …"[142]

On July 3, 2021, I personally wrote to FWS New Mexico State Director Shawn Sartorius, in an email, "Subject: inappropriate MSO numbers game in the 2021 Sacramento Allotment BO is stuck in my craw":

> "Please note from the 1995 Recovery Plan:
>
> "Other areas likely to be important population centers include the sky islands of southeastern Arizona and the Sacramento Mountains of central New Mexico" Vol 1 part 2 Page 26 and page 12 vol 2 chapt 1
>
> "The Team was unable to link consumption of specific prey and successful reproduction by the Mexican spotted owl, with two possible exceptions. First, fecundity of spotted owls occupying the Sacramento Mountains (Basin and Range - East RU) appeared to be associated with trends in abundance of peromyscid mice (Ward and Block 1995)." Vol 1 part 2" Pages 28 - 29
>
> And from the 2012 Recovery Plan:
>
> "Knowledge of genetic structure of threatened populations can aid in conserving and recovering those populations. Barrowclough et al. (2006) investigated genetic structuring in Mexican spotted owl populations. Genetic diversity was high in most populations sampled, with approximately 17 and 7.5% of observed genetic variation distributed among populations and physiographic regions, respectively. Their data suggested substantial gene flow among populations sampled in the Mogollon Rim – Upper Gila Mountains (UGM) region of central Arizona and New Mexico, with more restricted gene flow among other populations. The relatively dense population in the Sacramento Mountains showed evidence of isolation from other populations. Barrowclough et al. (2006) concluded that viability of the Sacramento Mountains population depends largely on internal population dynamics, suggesting that managers should maintain

[142] Email, To: Shawn Sartorius, From: Robin Silver, Subject: PLEASE CALL ROBIN SILVER ASAP re MISMATCH BETWEEN STUBBLE HEIGHT FOR COWS AND THE GRASS-FORB HEIGHT USED BY DOMINANT MSO PREY SPECIES, June 28, 2021, https://biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/lnf-mso-20210628-silver-to-USFWS-re-MISMATCH-BETWEEN-STUBBLE-HEIGHT-FOR-COWS-AND-MSO-PREY-SPECIES.pdf.

> sufficient habitat to support a viable population in this range." Pages 161-162
>
> "Although temporarily asynchronous reproduction and survival may occur among some subpopulations, interstitial distances and dispersal ability may limit the beneficial traits of metapopulation function such as the numerical rescue effect. This may be the case for the concentrated population of Mexican spotted owls in the Sacramento Mountains of New Mexico (Barrowclough et al. 2006). Consequently, subpopulations that are large enough to produce surplus individuals (i.e., acting as a source population) in some years, but isolated enough that external recruitment is rare, will require more conservation attention to maintaining internal recruitment and viability…" Page 247" [143]

On July 4, 2021, I personally wrote to FWS New Mexico State Director Shawn Sartorius, in an email, "Subject: INADEQUACY OF THE 4" STUBBLE REQUIREMENT TO PROTECT MSO PREY IN THE SACRAMENTOS / THE RANGE CON'S 4" STUBBLE REQUIREMENT CON GAME":

> "On page 84 of the April 20, 2021, Sacramento Allotment Biological Opinion, you say, "When forage utilization of 35 percent is met on the summer range, the Service believes there will be adequate herbaceous habitat for prey species. This forage utilization level should provide for herbaceous vegetation with a minimum stubble height of 4 inches, which is required by many spotted owl prey species."
>
> Your summary statement is not footnoted. And I cannot find anything in the literature that supports your statement for the primary MSO prey species in the Sacramento Mountains.
>
> I can only find two references to what can be construed as adequate cover for MSO prey in the Sacramentos.
>
> First is Ward and Block's Chapter 5: Mexican Spotted Owl Prey Ecology from the MSO 1995 Recovery Plan that I summarized in my email to you on 6/28 (attached here for your convenience). As far as I can tell, Ward and Block (1995) is still the best available science regarding cover for the primary MSO prey species in the Sacramentos.
>
> The second is the attached paper from Frey, "Preliminary Investigation of the Relationship Between Montane Meadow Stubble Height and Small Mammal Communities on the Carson National Forest."[144]

[143] Email, To: Shawn Sartorius, From: Robin Silver, Subject: inappropriate MSO numbers game in the 2021 Sacramento Allotment BO is stuck in my craw; July 3, 2021, https://biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/lnf-mso-20210703-silver-to-USFWS-re-INAPPROPRIATE-MSO-NUMBERS-GAME-IN-2021-SACRAMENTO-ALLOTMENT-BO.pdf.

[144] Preliminary Investigation of the Relationship Between Montane Meadow Stubble Height and Small Mammal Communities on Carson National Forest, New Mexico, A Final Report Submitted by: Jennifer K. Frey, PhD, December 31, 2003, Preliminary Investigation of Small Mammal Communities in Grazed and Ungrazed Montane Meadows in the Carson National Forest, New Mexico (biologicaldiversity.org).

To summarize from Frey,

> "Two species of vole were captured at the Ojo Sarco meadow [the meadow with the highest stubble height]; no voles were captured at the other two meadows."
>
> "**The high richness, diversity and abundance of small mammals at the Ojo Sarco meadow was likely due to the influence of tall, dense graminoid vegetation on vole occurrence and abundance**.
>
> • **Voles generally do not occur in the absence of adequate stubble height**.
>
> • Voles are particularly important to overall ecosystem structure and function, especially as prey to vertebrate predators."
>
> "The average stubble height on the Ojo Sarco meadow (15.8 inches) was 3 to over 4 times higher than found in the other two meadows (3.7 inches at Amole and 5.1 inches at U.S. Hill). The Amole meadow had the lowest stubble height."
>
> "**The meadow with the highest stubble height (Ojo Sarco) had the highest abundance, richness, and diversity of small mammals. This was primarily attributable to the occurrence of two species of voles that were not found in the two meadows with low stubble height**. In general, voles of the genus Microtus are associated with mesic or wet habitats dominated by graminoid vegetation. Graminoid vegetation serves both as the primary cover and as the major food source for most vole species. Most voles feed primarily on the vegetative portion of grasses and sedges. They are some of the most prolific mammals and their biomass may exceed all other animals in certain grassland habitats.
>
> In New Mexico, the meadow vole (M. pennsylvanicus) is typically associated with grass-sedge hydrosere communities at permanent water, primarily in the mid-elevations of the Sangre de Cristo Mountains in northern New Mexico (Findley et al. 1975). In contrast, the long-tailed vole (M. longicaudus) has a more broad geographic and ecologic distribution in New Mexico. This species occupies relatively mesic, but not necessarily wet, sites within meadows and forests in the higher mixed conifer and boreal forest zones throughout New Mexico (Findley et al. 1975). It seems to reach its greatest densities in riparian habitats although it can also be found in meadows and forest (personal observation)."
>
> "M. longicaudus was found in the upland portion of the meadow in tall, dense grasses where the soil was not wet. This unusual finding demonstrates that M. longicaudus can occupy drier sites if adequate grass cover is available; shrubby and forested habitats are not required.

This is important because it indicates that voles can occupy a broader spectrum of meadow habitats providing adequate cover exists."

"Voles are active on the surface where they construct distinct runways through the base of the vegetation. Runways with greater vegetation and detritus cover provide greater protection from predators (especially avian predators). Protection from predation contributes to higher numbers of voles in dense vegetation (Getz 1985). Most species display a positive response to vegetation cover; population densities are usually higher in sites with greater cover (e.g., Birney et al. 1976, Eadie 1953). Due to the importance of vegetative cover, vole populations are highly susceptible to livestock grazing and may disappear from areas with even moderate grazing (Fagerstone and Ramey 1996). It is likely that the low stubble height at the U.S. Hill and Amole sites is the reason no voles occur in those meadows. In addition to the escape cover provided by greater stubble height, increased vegetation contributes to a greater soil moisture, which has direct and synergistic benefits for vole populations. **If stubble height were decreased at the Ojo Sarco meadow to levels found at the U.S. Hill and Amole sites, it is probable that both species of voles could be extirpated**. M. longicaudus would likely be the first species impacted since the drier upland sites would likely lose herbaceous cover first. Although many studies have demonstrated a negative impact of livestock grazing on vole populations, there is little information on specific cover requirements for various species. It has been suggested that voles may require higher threshold levels of cover to support resident populations and still higher threshold levels to support population increases (Birney et al. 1976). Data on cover requirements for each species of vole are crucial to for understanding the relationship between cover and each species and to better manage livestock."

"Summary and Recommendations

1) **The meadow with the greatest stubble height had the highest abundance, richness, and diversity of small mammals; the meadow with the least stubble height had the lowest while the heavily grazed meadow had the least abundance, richness, and diversity of small mammals**

2) Tall, dense herbaceous cover on the Ojo Sarco meadow allowed for the occurrence of two species of vole; no voles occurred on the U.S. Hill or Amole meadows due to the absence of adequate herbaceous cover.

3) A significant decrease in herbaceous cover at the Ojo Sarco site would likely result in the extirpation of local vole populations.

4) Long-tailed voles are able to occur in upland meadow sites with adequate grass cover. …"

> On the other side of the ledger, regarding the source of the "4 [inch]" stubble" mantra, I can find nothing that isn't primarily focused on the needs of a cow - nothing deriving from the "4 [inch]" stubble" mantra that is focused on the protection of the needs of T&E species or their prey base. …
>
> Most of the USDA FS "Utilization Standards and Guidelines" papers cite to report 19890500 Managing Grazing of Riparian Areas in the Intermountain Region CLARY_WEBSTER which only says, "Kauffman and others (1983) report observations by F. C. Hall that a shift to shrub use does not generally occur (except in the case of highly palatable shrubs) if 4 inches of herbaceous stubble remains.""[145]

None of our concerns were addressed in the 2023 Sacramento BiOp. All were ignored completely even though they represent "the best scientific … data available."[146]

And, ultimately, FWS's 2023 Sacramento BiOp subsequently allows only that ""[h]erbaceous ground cover height will be maintained to a minimum of four (4) inches (in), on average, every three out of 5 years, in identified spotted owl monitoring plots within PACs [Mexican Spotted Owl primary activity centers].[147]

Such inappropriately weak protection for Mexican Spotted Owl in the Sacramento Mountains violates the ESA requirement that "each agency shall use the best scientific … data available."[148] This also violates the ESA mandate that FWS "implement" its own formal recovery plans for species.[149]

And, for context, regarding failure to afford increased protection to an endangered species being consistently abused by a chronically abusive permittee, this weak protection is put into place in spite of findings in the 2023 Annual Report for the April 2021, Biological Opinion:

> **"To comply with the BO, utilization levels are to be at or below 35 percent in all MSO designated critical habitat. Overall utilization across the summer range had an average of 72.9 percent utilization.** Average utilization results in key areas are displayed in the tables below. Utilization estimates ranged from 19 to 90.8 percent utilization across both pastures. Only one of the 19 sites had utilization below 35 percent at the end of the season."[150] [Emphasis provided in original document.]

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[145] Email, To: Shawn Sartorius, From: Robin Silver, Subject: INADEQUACY OF THE 4" STUBBLE REQUIREMENT TO PROTECT MSO PREY IN THE SACRAMENTOS / THE RANGE CON'S 4" STUBBLE REQUIREMENT CON GAME, July 4, 2021, https://biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/lnf-mso-20210704-silver-to-USFWS-re-INADEQUACY-OF-THE-4-INCH-STUBBLE-REQUIREMENT_RANGE-CONS-CON-GAME.pdf.
[146] Endangered Species Act, 16 U.S.C. § 1536(a)(2).
[147] 2023 Sacramento BiOp, page 22.
[148] Endangered Species Act, 16 U.S.C. § 1536(a)(2).
[149] Ibid., 16 U.S.C. § 1533(f)(1).
[150] Compliance Monitoring for the April 2021 Biological Opinion on the Sacramento and Dry Allotments (Cons: #02ENNM00-2016-F0440-R002), Annual Report, Lincoln National Forest, January 2024, Pages 15-16.; https://www.biologicaldiversity.org/programs/public_lands/forests/pdfs/lnf-sacramento-allotment-20240100-ANNUAL-REPORT-2023MonitoringReport_Final.pdf

In addition, also similar to the Forest Service/FWS treatment of NMMJM, FWS failed in its 2023 Sacramento BiOp to include any environmental baseline analysis for Mexican Spotted Owl.

This violates the ESA which requires consideration of the environmental baseline in any evaluation of an activity that will adversely affect an endangered species or its Critical Habitat.[151]

For Mexican Spotted Owl, (1) this not only ignores the nearby Agua Chiquita allotment, a federal activity, in its environmental baseline evaluation, but also ignores the fact that the Mexican Spotted Owl remains inadequately protected locally within the footprint of the South Sacramento Restoration Project which includes both the Sacramento and Agua Chiquita allotments; and, (2) also ignores the fact that Mexican Spotted Owl remains inadequately protected regionally.

Regionally, approximately 427 PACs, or 40% of all known PACs, are currently inadequately covered by the final Biological Opinions for at least eight restoration projects, Pinaleno Ecological, Bill Williams, 4FRI1, West Escudilla, Luna, Southwest Jemez, Puerco, and Burro Restoration Projects.

These Restoration Projects are not adequately or legally protective, individually or regionally, because of three legal and scientific deficiencies.

First, the Jeopardy Analysis for the 2023 Sacramento BiOp, as well as now for the Region's restoration projects' Biological Opinions, are not legal because they fail to include a Jeopardy Analysis which must consider the projects' impact on Recovery which is dependent upon non-existent range-wide habitat monitoring.[152]

No range-wide habitat monitoring has taken place since 2020.[153]

Secondly, the duration of post project treatment monitoring is either too short or has not been assigned a time period for at least eight of the restoration projects. These projects include the

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[151] 50 CFR § 402.2: "Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline."

[152] Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 931 (9th Cir. 2008).; *Ctr. for Biological Diversity v. Rumsfeld, 198 F. Supp. 2d 1139, 1153-54 (D. Ariz. 2002).*; Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), FWS, December 1995, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/RECOVERY-PLAN-Mexican-Spotted-Owl-199512-PRINT.pdf, page VII: "Success of the Recovery Plan hinges on the commitment and coordination among the Mexican government, U.S. Federal and state land-management organizations, sovereign Indian nations, and the private sector to ensure that the proposed population and habitat monitoring are implemented.; In addition, recently, the Court in WildEarth Guardians v. FWS also recognized this fact: Order, *WildEarth Guardians, Plaintiff, v. United States Fish and Wildlife Service and United States Forest Service, Defendants*, Case No. 4:13-cv-151-RCC, September 19, 2019.: "…The jeopardy analysis must consider both survival and recovery. *Nat'l Wildlife Fed'n*, 524 F.3d at 931; 50 C.F.R. § 402.02. [page 20] … Stand-alone Forest Plan measures protecting habitat do not reasonably address recovery because even if *all* national forest land was preserved for the MSO, it will never provide enough information about population trends to allow for delisting nor an accurate [page 21] assessment of whether the population range-wide is recovering. Therefore, it cannot be a basis for a no jeopardy determination. [pages 21-22] … Finally, FWS argues that the range-wide monitoring is for delisting—not for the jeopardy analysis. However, the two are interconnected because jeopardy must consider recovery, recovery must be geared towards eventual delisting, and delisting is dependent upon range-wide monitoring. … The BiOps [of the Forest Plans] simply do not provide a route to recovery or a way to accurately assess it. The no-jeopardy determination is unsupported, arbitrary, and capricious because the finding failed to account for recovery of the MSO." [page 24.]

[153] Mexican Spotted Owl Habitat Map, web accessed April 23, 2024, https://www.fs.usda.gov/detailfull/r3/plants-animals/wildlife?cid=FSEPRD890979&width=full.

Pinaleno Ecosystem, Bill Williams, 4FRI1, West Escudilla, Luna, Southwest Jemez, Puerco, and Burro restoration projects.

In support of a substantive post project treatment time period, the 1995 MSO Recovery Plan states,

> "Several biological reasons lead us to select a time span of 10-15 years for monitoring. … In summary, **we believe 10 years is a reasonable time span for monitoring because more than half of the adult population has turned over**. Further, we expect that the population would have been subjected to adequate environmental variation during this 10-year period." … [154]

Our July 7, 2020, MSO Leadership Forum Workgroup Understanding recognized that "[m]onitoring in PACs post treatment needs to be clearly stated as five years post treatment."[155]

In spite of this promise, however, the Forest Service and FWS have failed to confirm that post treatment monitoring for the restoration projects will be required for five years post treatment.

Without post treatment project monitoring of adequate duration for the ongoing and planned federal actions, the effects of the manipulation of Mexican Spotted Owl habitat cannot be known. Consequently, no new legally defensible evaluation of the environmental baseline, and no new legally defensible jeopardy analysis can be done.

Thirdly, post treatment project monitoring fails to include enough PACs for the results of post treatment project monitoring to be statistically significant. And no acceptable alternative has been presented by the Forest Service and FWS.

The issue of not monitoring enough PACs to achieve statistical significance is not new.

In resolving our objection to the 2015 4FRI1 FEIS and draft Record of Decision, that the Forest Service and FWS were providing for the post treatment monitoring of too few PACs to provide for statistical significance, on April 10, 2015, the Forest Service acknowledged,

> "There is mutual recognition of the need to evaluate the impacts of vegetation treatments on Mexican Spotted Owl (MSO) and its habitat at a broad scale. There is also a mutual understanding that the desired evaluation is beyond the scope of a single project such as the Four Forest Restoration Initiative. We have agreed to convene a working group that will design such a study. … The group will review the best available science and develop a

[154] Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*), FWS, December 1995, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/RECOVERY-PLAN-Mexican-Spotted-Owl-199512-PRINT.pdf, page 78.

[155] MSO Leadership Forum Workgroup, June 17 & 26, 2020 Workshop Notes, July 7, 2020, https://www.biologicaldiversity.org/species/birds/Mexican_spotted_owl/pdfs/20200707-MSO-Leadership-Forum-June-2020-Workshop-Notes.pdf.

> consistent monitoring approach across multiple administrative units, expanding upon existing monitoring efforts where appropriate."[156]

But "a consistent monitoring approach across multiple administrative units" has never been established by the Forest Service and FWS.

Providing for a robust monitoring program is especially important given that the restoration projects include widespread plans for the use of mechanical thinning when the best available owl science finds that:

> "Existing studies on the effects of fuels reduction treatments on spotted owls universally suggest negative effects from these treatments.";[157]
>
> "[F]orest restoration and thinning activities also may threaten owls and their existing habitat, and thus may qualify as an emerging threat.";[158] and,
>
> "No empirical studies have evaluated these [the effects of forest thinning and restoration] management activities on the Mexican spotted owl."[159]

In fact, contrary to the legal requirement that "each agency shall use the best scientific … data available,"[160] the Forest Service and FWS have failed to implement established post treatment monitoring methods that monitor the essential elements necessary for the evaluation of habitat treatments. These essential elements include long term survival, occupancy, and reproductive success.

In the Rim Country and South Sacramento restoration projects, the Forest Service and FWS propose to monitor GPS tagged owls in a program that includes no data on owl fitness, longevity, persistence, or reproductive success. The GPS program will only provide owl locations for a small number of owls over a period of a few months. The proposed GPS program uses overstory structure as a proxy for forest structure without measuring the relevant attributes of understory prey habitat.

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[156] Correspondence, from: Calvin N. Joyner, Regional Forester; to Mr. Jay Lininger, Center for Biological Diversity; RE: Response to the objections filed on the Four Forest Restoration Initiative (4FRI) Final Environmental Impact Statement (FElS) and Draft Record of Decision (DROD) released by the Forest Supervisors of the Coconino and Kaibab National Forests, Earl Stewart and Mike Williams, respectively; April 10, 2015.; OBJECTION_RESOLUTION_CORRESPONDENCE_USFS.pdf (biologicaldiversity.org), page 17.

[157] Conflicting Perspectives on Spotted Owls, Wildlife, and Forest Restoration, Joseph L. Ganey, Ho Yi Wan, Samuel A. Cushman, and Christina D. Vojta; Fire Ecology, 2017.; page 11.; citing, Meiman, S., R. Anthony, E. Glenn, T. Bayless, A. Ellingson, M.C. Hansen, and C. Smith. 2003. Effects of commercial thinning on home-range and habitat-use patterns of a male northern spotted owl: a case study. Wildlife Society Bulletin 31: 1254-1262.; Seamans, M.E., and R.J. Gutiérrez. 2007. Habitat selection in a changing environment: the relationship between habitat alteration and spotted owl territory occupancy and breeding dispersal. Condor 109: 566-576. doi: 10.1650/8352.1.; Stephens, S.L., S.W. Bigelow, R.D. Burnett, B.M. Collins, C.V. Gallagher, J. Keane, D.A. Kelt, M.P. North, L.J. Roberts, P.A. Stine, and D.H. Van Vuren. 2014*a*. California spotted owl, songbird, and small mammal responses to landscape fuel treatments. BioScience 64: 893-906. doi: 10.1093/biosci/biu137.; Tempel, D.J., R.J. Gutiérrez, S.A. Whitmore, M.J. Reetz, R.E. Stoelting, W.J. Berigan, M.E. Seamans, and M.Z. Peery. 2014. Effects of forest management on California spotted owls: implications for reducing wildfire risk in fire-prone forests. Ecological Applications 24: 2089-2106. doi: 10.1890/13-2192.1.; and Tempel, D.J., R.J. Gutiérrez, J.J. Battles, D.L. Fry, Y. Su, Q. Guo, M.J. Reetz, S.A. Whitmore, G.M. Jones, B.M. Collins, S.L. Stephens, M. Kelly, W.J. Berigan, and M.Z. Peery. 2015. Evaluating short- and long-term impacts of fuels treatments and simulated wildfire on an old-forest species. Ecosphere 6: 261. doi: 10.1890/ES15-00234.1.

[158] Managing emerging threats to spotted owls. *The Journal of Wildlife Management,* Ho Yi Wan, H., Joseph L. Ganey, Christina D. Vojta, and Samuel A. Cushman; 2018.; page 8.

[159] Ibid.

[160] Endangered Species Act, 16 U.S.C. § 1536(a)(2).

Without adequate monitoring of an adequate number of PACs for the results of post treatment project monitoring to be biologically significant, the effects of the manipulation of Mexican Spotted Owl habitat cannot be known. Consequently, no new legally defensible evaluation of the environmental baseline, and no new legally defensible jeopardy analysis can be done.

As we explained for NMMJM, similarly, these FWS and the Forest Service actions for Mexican Spotted Owl violate the legally required standard to use "the best scientific . . . data available,"[161] and, are contrary to the requirement to provide the "benefit of the doubt" to endangered species.[162]

Summary of Violations With Respect to the Mexican Spotted Owl

As explained above, the 2023 Sacramento BiOp—and the Forest Service's reliance on the BiOp—violate Sections 7 and 9 of the ESA in many distinct ways. In addition, the Forest Service and FWS's conclusions in the BiOp violate the ESA and the APA in the following respects.

First, FWS's conclusions with respect to the Mexican spotted owl fail to use the "the best scientific . . . data available."[163] For example, FWS determined that "the ecological condition of the range within some range key areas located within spotted owl critical habitat is poor," which in turn, could lead to "reduced forage availability, increased foraging time and distances, and a reduction in body condition which may limit reproduction potential or an owls ability to survive during periods of adverse conditions."[164] Although FWS characterizes the proposed action's requirements of 4-inch minimum vegetation height and 35% utilizations standard for owl critical habitat areas as "conservative," at no point does FWS connect these measurements/standards to the owl's prey habitat. To the contrary, as explained above, the best available science indicates that even a "conservative" use standard as defined by FWS and the Forest Service (i.e., 4-inch minimum cover height and 35% forage utilization) are woefully insufficient to support owl prey populations.

Relatedly, the 2023 Sacramento BiOp only requires that the Forest Service maintain the 4-inch cover height for 3 out of 5 years.[165] As a practical matter, this means that if the PACs suffer intense grazing for the first two years, there still will be no violation of the BiOp's terms, notwithstanding the potentially devastating impacts to owl prey availability that may occur in the interim. The delay in implementing full protection for severely degraded habitat is not explained. Nor can it be reconciled with the agencies' duties to use "the best scientific . . . data available,"[166] and to provide the "benefit of the doubt" to endangered species.[167]

Second, the 2023 Sacramento BiOp's reinitiation triggers for the Mexican spotted owl violate the ESA and APA. The BiOp establishes two reinitiation triggers for the proposed action: (1) where

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[161] 16 U.S.C. § 1536(a)(2).
[162] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.; Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); and, U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.; and, *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).
[163] 16 U.S.C. § 1536(a)(2).
[164] 2023 Sacramento BiOp at 77.
[165] *Id.* at 118-20.
[166] 16 U.S.C. § 1536(a)(2).
[167] Federal Register, Vol. 51, No. 106, Tuesday, June 3, 1986, Rules and Regulations, p. 19952.; Southwest Center For Biological Diversity, et al, vs. Bruce Babbitt, et al, Central Arizona Water Conservation District, et al, vs. Bruce Babbitt, et al, CIV. NO. 97-0474 PHX-DAE, CIV. NO. 97-1479 PHX-DAE (Consolidated); and, U.S. District Court for the District of Arizona, Judge David Alan Ezra, September 30, 1999.; and, *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).

"[p]ermitted numbers of livestock . . . exceed 412 head of livestock . . . during the summer grazing season" or "330 head of livestock . . . during the winter grazing season"; and (2) where "vegetation within meadows that occur within [affected] PACs" fail to "maintain at least 4-in of stubble height (residual vegetation) on forage species used by livestock (i.e., key species) in 3 out of 5 years."[168] These triggers violate the ESA and the APA. Perhaps most egregiously, the ITS is arbitrary because its triggers for reinitiation are not tied to the amount of habitat destroyed or altered. If a surrogate is used, as is the case here, FWS must "articulate a rational connection between the surrogate and the taking of the species."[169] The 2023 Sacramento BiOp articulates no rational connection between the surrogates and the taking of the Mexican spotted owl. At no point does the ITS establish that either the identified stocking levels, or a cover heigh of 4-inches is sufficient to maintain owl prey habitat. Accordingly, the ITS fails to actually establish whether take—i.e., the harm due to "significant habitat alterations of Mexican spotted owl prey habitat"[170]—has occurred. FWS failed to "articulate a rational connection between the surrogate and the taking of the species."[171]

Third, because new consultation is required to address the serious deficiencies in the 2023 Sacramento BiOp, Section 7(d) imposes an obligation on the Forest Service to avoid "mak[ing] any irreversible or irretrievable commitment of resources" until such consultation is lawfully completed. Accordingly, the Forest Service's current grazing authorization for the Sacramento Allotment—which is based on a fatally flawed BiOp—violates Section 7(d) of the ESA and must be immediately suspended until a lawful consultation is completed. *See* 16 U.S.C. § 1536(d).

CONCLUSION

Regarding riparian habitat, Region 3 the Forest Service's August 24, 2018, Southwestern Region Riparian and Aquatic Ecosystem Strategy says:

> "Rivers and streambeds are conduits for life. In no other ecosystem can we as an agency have a greater impact in '*Caring for the land and serving people*.'[[172]] Protection and enhancement of riparian and enhancement of riparian and aquatic areas is paramount in providing habitat and sustainable water for dependent fish, wildlife, plant species, and human communities alike. …"[173]
>
> "The overarching goal of this strategy is to ensure that the ecological integrity of riparian and aquatic habitats is maintained and/or restored. …"[174]

But the Regional Forest Service homage to the value of riparian habitat quoted above is purely empty rhetoric and once again only exists on paper and not in practice.

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[168] 2023 Sacramento BiOp at 94.
[169] *Wild Fish Conservancy v. Salazar*, 628 F.3d 513 (9th Cir. 2010)
[170] 2023 Sacramento BiOp at 93.
[171] *Wild Fish Conservancy*, 628 F.3d at 531.
[172] "What We Believe … The phrase, "Caring for the Land and Serving People," captures the Forest Service mission."; https://www.fs.usda.gov/about-agency/what-we-believe ; web accessed, January 28, 2020.
[173] USDA Forest Service Southwestern Region Riparian and Aquatic Ecosystem Strategy, August 24, 2018, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd602126.pdf.; page 1.
[174] Ibid., page 2.

Again, another species will likely be exterminated locally from the Sacramento Mountains, just as the Forest Service promotes and facilitates similar local extinctions throughout the Southwest on the Apache-Sitgreaves,[175] Coconino,[176] Gila,[177] Prescott,[178] and Tonto[179] National Forests.

And again, FWS rubber stamps the Forest Service's extinction-promoting and facilitating actions.

In this Notice, we challenge the 2023 Sacramento BiOp itself, we challenge the Forest Service's reliance on the 2023 Sacramento BiOp, and we challenge the Forest Service's independent violations of the ESA for the reasons set forth previously.

To summarize, the primary violations of law that we challenge in this Notice include, but are not limited to:

1. failure to obey the ESA's requirement to use "the best scientific . . . data available"[180] for both NMMJM and Mexican Spotted Owl;
2. failure to obey the ESA requirement in Section 7(a)(2) to "insure" against jeopardy and adverse modification of Critical Habitat, which includes not foreclosing a listed species' recovery, *i.e.,* the "use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided [in the ESA] are no longer necessary"[181] for both NMMJM and Mexican Spotted Owl;
3. failure to "implement" recovery plans in violation of ESA, Section 4(f)(1);
4. failure to provide for an ITS for either the NMMJM or the Mexican spotted owl that sets forth a rational "trigger" that, when reached, results in a level of incidental take requiring a re-initiation of consultation,[182] and where the BiOp fails to "articulate a rational connection between the surrogate and the taking of the species";[183]
5. failure to include a legally defensible environmental baseline analysis for both NMMJM and Mexican Spotted Owl;
6. failure to provide a legally defensible effects analysis for Mexican Spotted Owl; and,

[175] Sixty-Day Notice of Endangered Species Act Violations, Apache-Sitgreaves National Forest, CBD, June 27, 2019, http://forestpolicypub.com/wp-content/uploads/2019/07/000007_Center-for-Bio-Div-re-ESA-re-Jumping-Mouse_Region-3.pdf.; Sixty-day Notice of Endangered Species Act Violations, Upper Gila River Watershed, CBD, July 17, 2019, https://www.biologicaldiversity.org/programs/public_lands/grazing/pdfs/Upper-Gila-USFS-grazing-allotments-NOI-2019_07_17.pdf.
[176] Sixty-Day Notice of Endangered Species Act Violations, Verde River Drainage, CBD, March 16, 2020, https://www.biologicaldiversity.org/programs/public_lands/rivers/pdfs/NOI-20200316-Verde-River.pdf.;
[177] Sixty-day Notice of Endangered Species Act Violations, Upper Gila River Watershed, CBD, July 17, 2019, https://www.biologicaldiversity.org/programs/public_lands/grazing/pdfs/Upper-Gila-USFS-grazing-allotments-NOI-2019_07_17.pdf.
[178] Sixty-Day Notice of Endangered Species Act Violations, Verde River Drainage, CBD, March 16, 2020, https://www.biologicaldiversity.org/programs/public_lands/rivers/pdfs/NOI-20200316-Verde-River.pdf.;
[179] Sixty-Day Notice of Endangered Species Act Violations, Tonto National Forest, CBD, November 9, 2022, https://www.biologicaldiversity.org/programs/public_lands/grazing/pdfs/tonto-NOI-20221109.pdf.
[180] 16 U.S.C. § 1536(a)(2).
[181] 16 U.S.C. § 1536(a)(1).
[182] *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv.*, 273 F.3d 1229, 1249 (9th Cir. 2001).
[183] *Wild Fish Conservancy v. Salazar*, 628 F.3d 513 (9th Cir. 2010)

7. failure to meet the APA requirement that the Forest Service's and FWS's actions, findings, and conclusions are not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[184]

Further, since reinitiation of consultation is obviously required here, and since the Critical Habitat for both NMMJM and Mexican Spotted Owl have both been consistently damaged and are still being damaged by mismanaged cow grazing, consistent with Section 7(d) of the ESA, we expect that,

> "[a]fter initiation of consultation required under subsection (a)(2), the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2)."[185]

For these reasons, as well as all of the reasons articulated above, the Forest Service and the FWS are in ongoing violation of the ESA. These violations cannot be cured absent completion of formal consultation that comes to grips with the full spectrum of foreseeable effects resulting from the proposed action, which culminates with a BiOp that is based on the best available science, and that imposes serious and meaningful terms, conditions, and measures that will actually avoid jeopardy, as well as the destruction or adverse modification of critical habitat. Until such consultation can be completed, the agencies are in ongoing violation of the ESA absent immediate suspension of the Forest Service's grazing authorization that relies on the fatally flawed 2023 Sacramento BiOp and removal from the allotment of the livestock that are continuing to take this species.

The Center and Maricopa Audubon look forward to hearing from you in response to this Notice. While we would welcome the opportunity to discuss this matter by conference call, we will not delay the filing of a lawsuit if the agencies fail to take appropriate corrective actions.

If you have further questions, please contact Robin Silver, M.D., Center for Biological Diversity, P.O. Box 1178, Flagstaff, AZ 86002, by mail; by phone: (602) 799-3275, or by Email: rsilver@biologicaldiversity.org.

Sincerely,

Robin Silver, M.D.
Co-Founder and Board Member
Center for Biological Diversity

ATTACHMENT: 2021 Sacramento Allotment BiOp

cc: New Mexico Game and Fish Department Director Michael Sloane (via email: Michael.Sloane@state.nm.us)

[184] 5 U.S.C. § 706(2)(A): "The reviewing court shall … hold unlawful and set aside agency action, findings, and conclusions found to be … arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."
[185] 16 U.S.C. § 1536(7)(d).