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December 11, 2025

To: Beth Davis
PSICC Land Management Planner and Plan Revision Team Leader
Pike-San Isabel National Forests & Cimarron and Comanche National Grasslands
1127 Sherman Street, Suite 300
Denver, CO 80203
SM.FS.CCNGRevision@usda.gov
Submitted electronically via email

RE: Comments on the Draft Assessment for the Cimarron and Comanche National Grasslands (Project ID: 66622)

Dear Ms. Davis and the Cimarron-Comanche National Grasslands Plan Revision Team,

On behalf of Defenders of Wildlife and our over 2,000,000 members and supporters, thank you for the opportunity to provide comments on the Cimarron and Comanche National Grasslands Draft Assessment as part of the land management plan revision process.

Defenders of Wildlife ("Defenders") is dedicated to the protection of all native animals and plants in their natural communities. The Great Plains, where the plan area occurs, is one of the most threatened and least protected habitats in North America. We have a long history of conservation advocacy and engagement in this region, including collaboration with agencies, partners and residents, promoting wildlife coexistence, and supporting the science-based management of imperiled species and conservation of their habitats. Defenders has been substantively involved in black-footed ferret conservation for more than 50 years. We are a key non-profit partner on the U.S. Fish and Wildlife Service's Black-Footed Ferret Recovery Plan, a member of the U.S. Fish and Wildlife Service Black-Footed Ferret Recovery Implementation Team, and a member of the Prairie Dog Coalition. Over the past several decades, Defenders has engaged in cooperative management projects directed toward prairie dog conservation for black-footed ferret recovery throughout the west, including in Colorado, Kansas, Montana, South Dakota and Wyoming. We have also produced a number of publications regarding prairie dog habitat suitability for black-footed ferrets.

Please include this letter in the administrative record for the land management plan revision for the Cimarron and Comanche National Grasslands.

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Introduction

Native grasslands are the most threatened terrestrial ecosystem on earth, and conserving the remaining fragments is vital for diversity of both plant and animal species.[1] This plan revision represents an important opportunity to update the strategic direction guiding the stewardship of more than 550,000 acres of public grasslands in southeast Colorado and southwest Kansas. These grasslands encompass diverse landscapes, including shortgrass prairie, sand- sage prairie, juniper savannas, plains rivers, streams, and playas—providing habitat for wildlife such as black-tailed prairie dog and lesser prairie chicken. The Purgatoire River that runs through the Comanche National Grassland supports a stronghold of at-risk freshwater fishes, including Suckermouth Minnow (endangered in Colorado), Flathead Chub (threatened in Kansas, State Special Concern in Colorado), and Plains Minnow (endangered in Kansas and candidate in Colorado).[2]

These national grasslands provide a wide range of values to the public—supporting biodiversity, pollination for surrounding agriculture, clean water, carbon storage, watchable wildlife, cultural and social traditions, outdoor recreation, and local economies. The revised plan must ensure that these multiple values are preserved and enhanced, in accordance with the National Forest Management Act (NFMA), Bankhead-Jones Farm Tenant Act, and the Endangered Species Act (ESA), among other guiding laws and policies.

In this letter, Defenders offers comments on the following sections of the Draft Assessment for the Cimarron and Comanche National Grasslands Revised Land Management Plan[3] (hereafter, "Draft Assessment"):

I. The Assessment Process
II. Ecosystem Drivers and Stressors
III. Terrestrial Ecosystems
IV. Aquatic, Wetland, and Riparian Ecosystems
V. Watersheds
VI. At-Risk Species and Other Highlighted Species
VII. Forest Management
VIII. Rangeland Management
IX. National Forest System Roads, Trails, and Infrastructure
X. Designated Areas

Given that the existing land management plan is from 1984, we appreciate the agency's acknowledgment of the need to incorporate current scientific understanding, updated legal mandates, and evolving ecological, social, and economic conditions into a modernized planning framework. Defenders supports a collaborative, science-based planning process consistent with the 2012 Planning Rule. Overall, our comments are intended to help strengthen

[1] E.g., Scholtz, R., & Twidwell, D. (2022). The last continuous grasslands on Earth: Identification and conservation importance. *Conservation Science and Practice*, *4*(3), https://doi.org/10.1111/csp2.626.

[2] U.S. Forest Service, Cimarron and Comanche National Grasslands Wild and Scenic Rivers Eligibility Study Report (May 2025) at pg. 13.

[3] U.S. Forest Service, Draft Assessment, Cimarron and Comanche National Grasslands Revised Land Management Plan. Baca, Las Animas, And Otero Counties, Colorado Morton and Stevens Counties, Kansas (June 2025) (hereafter, "Draft Assessment").

the revised land management plan to better protect the long-term ecological health and resilience of the Cimarron and Comanche National Grasslands and the wildlife and communities that depend on them. Please keep us informed about any opportunities to further engage in the process.

I. The Assessment Process

Best Available Scientific Information (BASI)

Indigenous Knowledge

The 2012 Planning Rule requires the use of the "best available scientific information" (BASI) to inform planning and plan decisions.[4] The Forest Service Handbook (FSH) identifies Indigenous Knowledge and data and information from Tribal and Indigenous participation as appropriate sources of BASI.[5] Consistent with these directives, we advocate for the inclusion of Indigenous Knowledge as BASI, and for meaningful consultation with Tribes on a government-to-government basis. Throughout our comments, when referring to BASI, we intend for it to be receptive to and inclusive of Indigenous Knowledge.

State Wildlife Action Plans

Both Colorado and Kansas are nearing completion or have completed revisions of their State Wildlife Action Plans (SWAPs).[6] The SWAPs represent the BASI about fish and wildlife, provide a proactive planning tool, and reflect collaborative partner engagement. While the Draft Assessment claims to be informed by "the 2024 State Wildlife Action Plan (Colorado)"[7], the species evaluations all reference the Colorado SWAP from 2015 and the Kansas SWAP from 2022.[8] The final assessment and species evaluations must be updated to reflect information from most recent SWAPs once available. For SCC, this should include evaluating any additional species identified as Species of Greatest Conservation Need in the new SWAPs.

Absence and misrepresentation of BASI

As described in the Draft Assessment, BASI can come from a variety of sources, but must be "accurate, reliable, and relevant to the issues being considered."[9] Unfortunately, this requirement has not been realized. An overarching concern with the Draft Assessment is the absence of supporting BASI for many claims, and in some cases misrepresentation of cited sources. The Draft Assessment is overly qualitative. It makes vague references to monitoring data, natural range of variation (NRV) modeling, Range Analysis Platform (RAP) data, but does not show any of the data. We provide many examples of this systematic issue throughout our comments. The final assessment must transparently represent BASI, including making those documents that were used to inform the planning process publicly available (e.g., NRV report, Range Analysis Platform Trends data, ecosystem integrity workshop documentation and worksheets, wilderness inventory, etc.).

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[4] 36 CFR § 219.3

[5] FSH 1909.12 Zero Code (1909.12-2024-1) at pgs. 1, 11, and 29.

[6] Colorado Parks and Wildlife (CPW), State Wildlife Action Plan (SWAP), available from: https://engagecpw.org/state-wildlife-action-plan (last visited Oct. 20, 2025); Kanas Department of Wildlife and Parks (KPW), Kansas State Wildlife Action Plan, available from: https://ksoutdoors.gov/Services/Kansas-SWAP (last visited Oct. 20, 2025).

[7] Draft Assessment, pg. 11. Note that there is no 2024 SWAP for Colorado—the 2025 revision is currently awaiting final approval by the U.S. Fish and Wildlife Service.

[8] Draft Assessment, Appendix C, pgs. 16, 17, 57, 60, 64, 65, 73, 99, 115, 204, 605, 612.

[9] Draft Assessment, pg. 8.

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II. Ecosystem Drivers and Stressors

The Draft Assessment includes a vague category of "herbivory" that lumps both "wild (wildlife) and domestic (permitted livestock) disturbance processes" and claims these combined activities "can act as either a driver or a stressor."[10] The definition of "stressors" in the context of land management planning regulations is "factors that may directly or indirectly degrade or impair ecosystem composition, structure, or ecological process in a manner that may impair its ecological integrity, such as an invasive species, loss of connectivity, or the disruption of a natural disturbance regime."[11] Given that stressors are supposed to be identified relative to a *natural disturbance regime,* it is inappropriate to lump native herbivores with domestic livestock grazing. The former have millennia worth of evolutionary history in the ecosystem, while the latter are a novel disturbance imposed upon the ecosystem for human benefit.[12] For accuracy, the statement that "Grasslands have evolved with herbivory"[13] should be revised to: "Grasslands have evolved with native herbivores."[14] The final assessment must not conflate endogenous and exogenous disturbance factors, as this is inconsistent with BASI on disturbance ecology[15] and the concept of "stressors" in the 2012 Planning Rule.[16]

Bison

Historically, Plains bison (*Bison bison*) was the dominant grazer throughout the Great Plains, affecting vegetation communities through grazing, physical disturbance, nutrient cycling, and seed dispersal.[17] These activities contributed to grassland heterogeneity that supported many prairie-obligate species (e.g., grassland songbirds). The "terrestrial ecosystems" section of the Draft Assessment recognizes the local extirpation of bison and decline of prairie dogs has "changed the vegetation ecology of the area"[18] and "led to significant long-term changes in species composition in this ecosystem."[19] Several evaluations for species of conservation concern (SCC) identify extirpation of bison as ongoing habitat threat.[20] The NRV report for the grasslands also apparently discusses the loss of bison,[21] although unfortunately this report was not made publicly available.[22] Despite their importance as a keystone species due to their significant impact on grassland ecosystems, influencing plant diversity, soil health, and the overall ecological balance, bison are notably absent from the "ecosystem drivers and stressors" section. The final

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[10] Draft Assessment, pg. 18.
[11] 36 CFR 219.19; *Also see* FSH 1909.12 Zero Code at pg. 18.
[12] *See*, e.g., Fahnestock, J. T., & Detling, J. K. (2002). Bison-prairie dog-plant interactions in a North American mixed-grass prairie. *Oecologia*, *132*(1), 86-95 https://doi.org/10.1007/s00442-002-0930-8; Sierra–Corona, R., et al. (2015). Black-tailed prairie dogs, cattle, and the conservation of North America's arid grasslands. *PLoS One*, *10*(3), https://doi.org/10.1371/journal.pone.0118602.
[13] Draft Assessment, pg. 18.
[14] *See,* e.g., Truett, J. C., et al. (2001). Managing bison to restore biodiversity. *Great Plains Research: A Journal of Natural and Social Sciences*. 541: 123-144 https://digitalcommons.unl.edu/greatplainsresearch/541/.
[15] McIntyre, S., & Hobbs, R. (1999). A framework for conceptualizing human effects on landscapes and its relevance to management and research models. *Conservation biology*, *13*(6), 1282-1292 https://doi.org/10.1046/j.1523-1739.1999.97509.x; available from: https://conbio.onlinelibrary.wiley.com/doi/epdf/10.1046/j.1523-1739.1999.97509.x; Larson, D. L. (2003). Native weeds and exotic plants: relationships to disturbance in mixed-grass prairie. *Plant Ecology*, *169*(2), 317-333 https://doi.org/10.1023/A:1026046810307.
[16] 36 CFR 219.19
[17] Kohl. M.T., et al. (2013). Bison versus cattle: are they ecologically synonymous? *Rangeland Ecology and Management*. Society for Range Management. 66(6):721-731 https://doi.org/10.2111/REM-D-12-00113.1.
[18] Draft Assessment, pg. 24.
[19] *Id*., pg. 27.
[20] *Id.* Appendix C, pgs. 3, 9, 32, 71, 94, 121, 123.
[21] *Id.*, pg. 27.
[22] *See* similar comment on this issue in: Center for Biological Diversity et al. (Sept. 25, 2025) comments on this Draft Assessment. Available from: https://cara.fs2c.usda.gov/Public/DownloadCommentFile?LetterId=892057&IsLetter=False We incorporate by reference the Center for Biological Diversity's comments and all references therein.

assessment should explicitly identify bison as a keystone species[23] and an ecosystem driver. The final assessment should also provide relevant information on the recent regulatory changes for bison in the State of Colorado, recognizing that the Colorado Parks and Wildlife Commission recently gave bison a dual legal classification as both livestock and wildlife.[24]

Bison grazing does not act in isolation but has interactive effects with other native herbivores, disturbance from wildfire, intentional fires lit by Indigenous peoples, and ground disturbance by burrowing mammals.[25] Plants and animals of the mixed-grass prairie co-evolved with bison and other herbivores for thousands of years. Bison grazing patterns contributed to grassland plant productivity and nutritional value in addition to the variable soil conditions and precipitation patterns in the region, as well as by the occasional lightning- and human-lit prairie fires.[26] Bison grazing has been shown to increase rates of nutrient cycling,[27] modify plant species composition[28] and increase the nutritive value of grasses.[29] Following the reduction of the bison herds, bison were replaced by domestic cattle, and a significant shift occurred, resulting in overgrazing and then rotational grazing regimes.[30] The final assessment should expand upon the disruption of the historical disturbance regime and these interactive effects.

The Draft Assessment fails to recognize BASI demonstrating important differences in the grazing habits and impacts of bison and domestic cattle.[31] Compared to cattle, bison are evolutionarily adapted to the grasslands. Individual bison herds cover much more ground and have much larger grazing patches than cattle.[32] Bison and cattle exhibit significant behavioral differences.[33] Cattle spend a higher proportion of time grazing than bison and move at slower rate than bison, which increases heterogeneous grazing at a pasture scale.[34] The final assessment must acknowledge BASI on the ecological differences between bison and cattle, and separate out the "herbivory" section rather than lumping all grazers indiscriminately.

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[23] *See* Truett, J. C., et al. (2001), *supra.*

[24] Duncan, T. (2025, Nov. 13). *Parks and Wildlife Commission approves dual classification for bison*. https://cpw.state.co.us/news/11132025/parks-and-wildlife-commission-approves-dual-classification-bison (last visited Dec. 11, 2025).

[25] *See*, e.g., Miller Hesed, C.D. and Yocum, H.M. (April 2023). Grassland management priorities for the North Central Region. (Report). Open-File Rep. 2023-1037. Reston, VA: U.S. Department of the Interior, Geological Survey (USGS). 53 p. https://doi.org/10.3133/ofr20231037 at pgs. 13, 28 30,

[26] Freese, C., et al. (2018). American Prairie Reserve Bison Grazing Proposal - Scientific Basis and References. American Prairie Reserve: 65.

[27] Day, T. A., & Detling, J. K. (1990). Grassland Patch Dynamics and Herbivore Grazing Preference Following Urine Deposition. *Ecology*, 71(1), 180–188. https://doi.org/10.2307/1940258

[28] Coppock, D. L., and J.K. Detling. (1986). Alteration of bison and black-tailed prairie dog grazing interaction by prescribed burning. *Journal of Wildlife Management* 50(3): 452-455 https://doi.org/10.2307/3801103.

[29] Coppock, D.L., et al. (1983). Plant-herbivore interactions in a North American mixed-grass prairie. *Oecologia* 56, 10–15. https://doi.org/10.1007/BF00378211

[30] Kohl, M. 2012. *Bison Conservation in the Northern Great Plains*. Wildlife Biology, University of Montana, M.S. Thesis, May 2012.

[31] Geremia, C., Hamilton, E. W., & Merkle, J. A. (2025). Yellowstone's free-moving large bison herds provide a glimpse of their past ecosystem function. *Science*, *389*(6763), 904-908 https://doi.org/10.1126/science.adu0703; Ratajczak, Z., et al. (2022). Reintroducing bison results in long-running and resilient increases in grassland diversity. *Proceedings of the National Academy of Sciences*, *119*(36), e2210433119 https://doi.org/10.1073/pnas.2210433119.

[32] Plumb, G.E., and J.L. Dodd. (1993). Foraging ecology of bison and cattle on mixed prairie: implications for natural area management. *Ecological Applications* 3:631-643 https://doi.org/10.2307/1942096; Kohl. M.T., et al. (2013), *supra.*

[33] Kohl. M.T., et al. (2013), *supra.*

[34] *Id.*

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Black-Tailed Prairie Dog

The black-tailed prairie dog (*Cynomys ludovicianus*) once occupied extensive areas throughout the Great Plains, serving an important role in ecosystem structure and function. Prairie dogs are a keystone species, influencing the landscape through their burrowing activities and providing habitat for other species they provide.[35] Over 200 vertebrate species have been observed on prairie dog colonies; of these, at least nine species depend heavily on prairie dogs for their survival and many others benefiting from their existence.[36] For example, a high diversity of bird species has been attributed to the heterogeneous plant cover and species composition resulting from prairie dog presence.[37]

The Draft Assessment problematically portrays prairie dogs as a stressor in addition to their role as a driver. For example, the summary of drivers and stressors claims, "Prairie dog grazing can create niches for native plant colonization, although in some instances it may favor invasive species."[38] No BASI is referenced to substantiate this claim that prairie dogs may favor colonization by invasives. Ironically, while the Draft Assessment repeatedly suggests that prairie dogs may promote invasive species,[39] the "Infrastructure" section ignores the vast body of scientific literature demonstrating roads are conduits for spread of exotic plants.[40] In fact, prairie dogs have been shown to help actively exclude exotic plants and mitigate their spread beyond roadsides.[41] In alignment with BASI, the final assessment should consistently recognize prairie dogs as an ecosystem driver that contribute to ecosystem integrity of the grasslands (e.g., by increasing groundwater recharge, lowering risk of desertification, reducing soil compaction, etc.).[42]

The "terrestrial ecosystem" section problematically posits that livestock grazing is beneficial to the ecosystem while characterizing prairie dogs as detrimental:

> "Managed herbivory (permitted grazing management) that appropriately adjusts timing, intensity, frequency and duration of *grazing can increase ecological integrity* by reducing biomass, which aids in the transfer of nutrients to the soil. Heavy, continuous, season-long herbivory, as is found in *prairie dog towns*, can result in increases in annual grasses and forbs, nonpalatable perennial grass species, bare ground, erosion, and nonnative species, which *can compromise integrity*."[43]

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[35] Kotliar, N. B. et al. (1999). A critical review of assumptions about the prairie dog as a keystone species. *Environmental management*, *24*(2), 177-192 https://doi.org/10.1007/s002679900225.

[36] *Id.*

[37] Augustine, D. J., & Baker, B. W. (2013). Associations of grassland bird communities with black-tailed prairie dogs in the North American Great Plains. *Conservation Biology*, *27*(2), 324-334 https://doi.org/10.1111/cobi.12013; Dreelin, R. A., et al. (2025). Keystone effects of prairie dogs (*Cynomys* spp.) on grassland birds: Current knowledge and future directions. *Conservation Science and Practice*, *7*(4), e70004 https://doi.org/10.1111/csp2.70004.

[38] Draft Assessment, pg. 5.

[39] *Id.*, pgs. 5, 23.

[40] *See*, e.g., Gelbard, J. L., & Belnap, J. (2003). Roads as conduits for exotic plant invasions in a semiarid landscape. *Conservation Biology*, *17*(2), 420-432 https://doi.org/10.1046/j.1523-1739.2003.01408.x; Larson, D. L. (2003), *supra.*

[41] Larson, D. L. (2003), *supra.*

[42] *See*, e.g., Martınez-Estevez L, et al. (2013). Prairie Dog Decline Reduces the Supply of Ecosystem Services and Leads to Desertification of Semiarid Grasslands. *PLoS ONE* 8(10): e75229. https://doi.org/10.1371/journal.pone.0075229

[43] Draft Assessment, pg. 23.

This paragraph lacks rational connection with the BASI on prairie dog ecology, which recognizes prairie dogs as a keystone species that maintain grasslands and function as ecosystem engineers.[44] Rather than portray prairie dogs and grazing as oppositional, the final assessment should recognize opportunities for coexistence. The final assessment must also accurately represent the BASI on the respective roles of grazing, prairie dogs, and roads on propagation of invasive species.[45]

Recent research by the U.S. Department of Agriculture suggests that, with conservation-focused management, prairie dogs and cattle can coexist with only minor effects of cattle production.[46] Prairie dog colonies are known to expand during drought conditions, driven by a search for scarce forage. However, studies indicate that drought stress generally leads to a decrease in active-burrow or overall population density.[47] The revised plan should include management approaches to effectively balance prairie dog conservation with livestock production under drought conditions.[48]

Beaver

A historic ecosystem driver absent from the "ecosystem drivers and stressors" section is the American Beaver (*Castor canadensis*). Instead, beaver are recognized as a keystone species in the ambiguous "other highlighted species" section. This section correctly describes that beaver, along with black-tailed prairie dog, "play a fundamental role in altering the landscape in the plan area to support native wildlife."[49] We agree with this characterization, which affirms that beaver warrant identification as an ecosystem driver. Prior to European settlement, beaver were found in nearly all aquatic habitats throughout North America that supported adequate water and food resources.[50] Beaver are well known for their disturbance effects in aquatic, riparian and wetland ecosystems. Beaver dam building and feeding activities affect plant and wildlife diversity,[51] invertebrate richness[52] and fish community diversity.[53] We highlight that the Revised Assessment for the Lolo National Forest includes beaver as an ecosystem driver with

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[44] Duchardt, C. J., et al. (2025). A disturbance triangle: The interactive role of prairie dogs with fire and ungulate grazing in the Great Plains. *BioScience*, *75*(10), 881-891 https://doi.org/10.1093/biosci/biaf125; Kotliar, N. B. et al. (1999), *supra*; Weltzin, J. F. et al. (1997). Small-mammal regulation of vegetation structure in a temperate savanna. *Ecology*, *78*(3), 751-763 https://doi.org/10.1890/0012-9658(1997)078[0751:SMROVS]2.0.CO;2; Wiens, J. A. (2009). Landscape ecology as a foundation for sustainable conservation. *Landscape Ecology*, *24*(8), 1053-1065 https://doi.org/10.1007/s10980-008-9284-x

[45] Gelbard, J. L., & Harrison, S. (2003). Roadless habitats as refuges for native grasslands: interactions with soil, aspect, and grazing. *Ecological applications*, *13*(2), 404-415 https://doi.org/10.1890/1051-0761(2003)013[0404:RHARFN]2.0.CO;2.

[46] Augustine, D. J., & Derner, J. D. (2021). Long-term effects of black-tailed prairie dogs on livestock grazing distribution and mass gain. *The Journal of Wildlife Management*, *85*(7), 1332-1343 https://doi.org/10.1002/jwmg.22103.

[47] Bruggeman, J. Licht, D. 2020. Drought-mediated changes in black-tailed prairie dog colonies in the Northern Great Plains. *Journal of Mammalogy*, 101 https://doi.org/10.1093/jmammal/gyaa070.

[48] Augustine, D. J., et al. (2024). Does drought intensify the effects of black-tailed prairie dogs on livestock production and net revenue in semiarid rangelands? *Rangeland Ecology & Management* https://doi.org/10.1016/j.rama.2024.04.011; *also see* interpretive summary at: https://www.ars.usda.gov/research/publications/publication/?seqNo115=410459 (last visited Nov. 6, 2025).

[49] Draft Assessment, pg. 68.

[50] Naiman, R. J. et al. (1988). Alteration of North American streams by beaver. *BioScience*, *38*(11), 753-762 https://doi.org/10.2307/1310784.

[51] Schlosser, I. J. (1995). Dispersal, boundary processes, and trophic-level interactions in streams adjacent to beaver ponds. *Ecology*, *76*(3), 908-925 https://doi.org/10.2307/1939356; Johnston, C. A., & Naiman, R. J. (1990). Aquatic patch creation in relation to beaver population trends. *Ecology*, *71*(4), 1617-1621. https://doi.org/10.2307/1938297.

[52] Bush, B.M., Wissinger, S.A. (2016). Invertebrates in Beaver-Created Wetlands and Ponds. In: Batzer, D., Boix, D. (eds) Invertebrates in Freshwater Wetlands. Springer, Cham. https://doi.org/10.1007/978-3-319-24978-0_12.

[53] Naiman, R. J. et al. (1988), *supra.*

informative modeling of the historic "beaver influence area."[54] Outside of montane landscapes, work has also been done to evaluate beaver habitat suitability in grasslands.[55] Colorado Parks and Wildlife recently released its *Draft Beaver Conservation and Management Strategy*.[56] This BASI should be incorporated into the final assessment while recognizing beaver as an ecosystem driver.

Climate Change

We appreciate the Draft Assessment's inclusion of "Current and Projected Climatic Conditions" as a stressor in the plan area. The 2012 Planning Rule requires plans to consider climate change as a system stressor[57], in development of the plan monitoring program[58] and in considering the connectivity requirements of species.[59] As described in the *Citizen's Guide to National Forest Planning*, "Forest protection and management represent an important opportunity to reduce the impacts of future climate change."[60] The final assessment, "need for change," and revised plan must meet the substantive requirements of the 2012 Planning Rule to "consider climate change as a major stressor that must be addressed and monitored, and to plan for a future where forests are resilient to future changes."[61] Climate adaptation strategies for at-risk species and other resources impacted climate-driven stressors should be developed and incorporated into the revised plan.[62]

Invasive Species

The Draft Assessment appropriately recognizes invasive species as an ecosystem driver and stressor; however, this discussion is strictly qualitative. The final assessment should quantify the spatial distribution of invasive plants in the plan area, the trends, and the effects of agency efforts to reduce the spread and extent. Due to their pronounced influence on reducing ecosystem integrity, we recommend invasive species be considered for focal species in the revised plan (see section VI).

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[54] U.S. Forest Service, Revised Assessment Lolo National Forest Land Management Plan (September 2023), pgs. 42-47.

[55] Robel, R. J., et al. (1993). Relationship between habitat suitability index values and ground counts of beaver colonies in Kansas. *Wildlife Society Bulletin (1973-2006)*, *21*(4), 415-421; Gibson, P. P., & Olden, J. D. (2014). Ecology, management, and conservation implications of North American beaver (*Castor canadensis*) in dryland streams. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *24*(3), 391-409 https://doi.org/10.1002/aqc.2432; Grudzinski, B. P. et al. (2022). A global review of beaver dam impacts: Stream conservation implications across biomes. *Global ecology and conservation*, *37*, https://doi.org/10.1016/j.gecco.2022.e02163; Norman, L. M. et al. (2022). Natural infrastructure in dryland streams (NIDS) can establish regenerative wetland sinks that reverse desertification and strengthen climate resilience. *Science of the Total Environment*, *849*, https://doi.org/10.1016/j.scitotenv.2022.157738.

[56] Livingston, J. (2025, Nov. 17) CPW seeks public input on its Draft Beaver Conservation and Management Strategy through December 17 https://cpw.state.co.us/news/11172025/cpw-seeks-public-input-its-draft-beaver-conservation-and-management-strategy-through (last visited Dec. 11, 2025); also see Colorado Parks and Wildlife (CPW) (2025) Colorado Beaver Conservation and Management Strategy Draft for Public Comment - November 2025. Available from: https://engagecpw.org/beaver-conservation-and-management-strategy (last visited Dec. 11, 2025).

[57] 36 CFR § 219.7

[58] 36 CFR § 219.12

[59] 36 CFR 219.19 definition of connectivity: "Connectivity. Ecological conditions that exist at several spatial and temporal scales that provide landscape linkages that permit the exchange of flow, sediments, and nutrients; the daily and seasonal movements of animals within home ranges; the dispersal and genetic interchange between populations; and the long-distance range shifts of species, such as in response to climate change."

[60] U.S. Forest Service, *A Citizen's Guide to Forest Planning*, Prepared by the Federal Advisory Committee on Implementation of the 2012 Land Management Planning Rule (June 2016) at pg. 36.

[61] *Id*., pg. 36.

[62] *See*, e.g. University of Colorado Bolder, North Central Climate Adaptation Science Center, "A Decision Support Tool for Prairie Dog and Cattle Coexistence in a Changing Climate." Available from: https://nccasc.colorado.edu/project/decision-support-tool-prairie-dog-and-cattle-coexistence-changing-climate (last visited October 23, 2025).

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The assessment acknowledges that "Livestock grazing can create change in plant composition"[63] and that "Cheatgrass (*Bromus tectorum*) has increased in the plan area and represents a major change in the grassland ecosystem relative to historic conditions."[64] However, the Draft Assessment makes no definitive connection between the two. Instead, it implicates fire as the sole mechanism for invasive spread in the plan area: "Reduced role of recurrent fire in these ecosystems it is thought to be responsible for ecologically adverse shifts in the structure, composition, and diversity of these grasslands, leading specifically to the rise of ruderal species and invasion by less fire-tolerant species (Brockway et al 2007)."[65] The cited study by Brockway et al.[66] does not support lack of fire as the sole cause invasive species expansion. Rather, it states:

> "…during the past 125 years, the frequency and extent of grassland fire has dramatically declined as a result of the systematic heavy grazing by large herds of domestic cattle and sheep which reduced the available levels of fine fuel and organized fire suppression efforts that succeeded in altering the natural fire regime."[67]

By ignoring the role of livestock grazing, the Draft Assessment blatantly misrepresents BASI.

We agree that restoring fire is one important part of improving grassland integrity and may help reduce cheatgrass.[68] However, the revised plan must accurately address the mechanisms underlying ecosystem departure. As described in a recent review paper, "Grazing reduces site resistance to cheatgrass independent of fire."[69] Livestock grazing in Colorado can "tip the balance toward cheatgrass in pinyon-juniper woodlands"[70] and make these woodlands more fire-prone. Although this same review paper[71] is cited in the Draft Assessment, its results are presented selectively and thus arbitrarily. The final assessment must accurately address BASI by identifying grazing as a contributor to annual invasive spread.

III. Terrestrial Ecosystems

The summary ratings of terrestrial ecosystem integrity in the Draft Assessment are a fundamental piece of the assessment but are unclearly presented.[72] What is the difference between the "ecological integrity rating" and the "integrity rating"?[73] Currently, it is unclear what informs these different ratings and therefore they appear arbitrary. The assessment merely states "Ecological integrity workshops conducted with unit staff provided observational information on the status and trends of these ecosystems. A summary of ecological integrity by ecosystem is found

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[63] Draft Assessment, pg. 66.
[64] *Id.*
[65] *Id.*
[66] Note this is cited as Brockway et al. 2007 in the Draft Assessment, but the literature cited only references a study by Brockway et al. 2002 (Draft Assessment, pg. 110). We believe Brockway et al. 2002 to be the correct citation, and Brockway et al. 2007 is a typo.
[67] Pg. 135, Brockway, D. G. et al. (2002). Restoring fire as an ecological process in shortgrass prairie ecosystems: initial effects of prescribed burning during the dormant and growing seasons. *Journal of Environmental Management*, *65*(2), 135-152 https://doi.org/10.1006/jema.2002.0540.
[68] Molvar, E.M., et al. (2024). *Cheatgrass invasions: History, causes, consequences, and solutions*. Hailey, ID: Western Watersheds, pg. 25.
[69] *Id.*, Pg. 46.
[70] *Id.*, Pg. 45.
[71] Molvar, E.M., et al. (2024), *supra.*
[72] Draft Assessment, Table 3, pg. 23.
[73] *Id.*

in table 3."[74] There are many references to "non-published Forest Service document" worksheets, technical reports, and ecosystem integrity workshops[75] that appear to have informed these ratings. However, this information is entirely unavailable to the public. The final assessment must clearly describe what informs the rankings of ecological integrity and the difference between the two integrity rating schemes presented in Table 3. The final assessment ratings for terrestrial ecosystems must also take into account the Grasslands' 2005 Roads Analysis Report[76] (discussed further in section IX).

Shortgrass Prairie

This section relies on satellite remote sensing imagery from the mid-1980s to assert an increase in tree cover in the shortgrass prairie ecosystem. It cites a synthesis paper about pinon–juniper dynamics across the western U.S., but this study explicitly warns against drawing conclusions of long-term trends from relatively recent imagery:

> "An important management question is whether any particular woodland on the landscape today has long been occupied by trees—either as persistent woodland or savanna or wooded shrubland—or represents a former grassland or shrubland that has been converted to woodland via tree expansion during the past 150 yr. A variety of methods is available for answering this question, although each method has inherent limitations. Aerial-based and ground-based repeat photography is a powerful tool if available, but we lack historic photo coverage for much of the West."[77]

This cited paper rebuts the short-term analysis approach used in the Draft Assessment. Strangely, the NRV report,[78] conducted specifically for this plan area but not provided publicly, is not referenced once in describing the "status and trends" of this ecosystem. The important management question raised by Romme et al.[79] about the historical representation of woodlands remains unaddressed in the Draft Assessment and must be remedied in the final version.

The BASI[80] referenced in the SCC evaluations[81] examines change in piñon-juniper woodland cover since Euro-American settlement and paints a much more nuanced picture of both expansion and contraction. A baseline of pre-Euro-American settlement is important to consider because "Initial logging and woodcutting in the mid to late 1800s in piñon-juniper ecosystems may have reduced woodland density and extent, whereas fire suppression and grazing beginning in the 20th century may have contributed to the densification and expansion of piñon-juniper ecosystems."[82] As such, the assessment cannot draw meaningfully conclusions from aerial imagery from the mid-1980s and should better align with the content of the SCC evaluations. To inform the final assessment, the planning team should conduct a thorough search for historic photos and land classification maps from 19th century public land surveys.

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[74] Draft Assessment, pg. 21.
[75] Draft Assessment, pg. 149-150.
[76] U.S. Forest Service (2005). Cimarron and Comanche National Grasslands Plan Revision Roads Analysis Report. Pueblo, CO.
[77] Romme, W. H., et al. (2009). Historical and modern disturbance regimes, stand structures, and landscape dynamics in pinon–juniper vegetation of the western United States. *Rangeland Ecology & Management*, *62*(3), 203-222 https://doi.org/10.2111/08-188R1.1.
[78] Provencher L, et al. (2025). *Grassland natural range of variation. Final Report for the Cimarron-Comanche National Grasslands to the USFS Mountain Service Planning Group*. The Nature Conservancy, Reno, Nevada.
[79] Romme, W. H., et al. (2009), *supra,* at pg. 214.
[80] Amme, N., et al. (2020). Change in piñon-juniper woodland cover since Euro-American settlement: Expansion versus contraction associated with soil properties. Rangeland Ecology & Management 73(6): 847-855. https://doi.org/10.1016/j.rama.2020.07.001
[81] Draft Assessment, Appendix C, pgs. 12, 56, 64.
[82] Amme, N., et al. (2020), *supra*.

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Sandsage Prairie

The Draft Assessment identifies an increase in annual grasses, forbs, and shrubs, and suggests problematic solutions without grappling with the root causes. It concludes:

> "While prescribed fire could reduce impacts associated with fire suppression, implementation of prescribed fire in the plan area requires careful consideration since this ecosystem is highly fragmented due to the patchwork of land ownership throughout the plan area. Since fire cannot always be used, *practices such as brush management may be necessary to help keep the community in balance* (NRCS 2023)."[83]

The referenced ecological site description by the Natural Resources Conservation Service (NRCS)[84] indicates brush management may be necessary where continued heavy grazing pressure and lack of fire contributes to an increase in woody shrubs. It states that "Careful grazing management will have to accompany any sort of brush management efforts."[85] The Draft Assessment misrepresents the BASI, as it fails to acknowledge that improperly managed livestock grazing—not just fire exclusion—can contribute to the increase in sand sagebrush.[86] The final assessment must accurately represent the BASI when describing the causal and interactive mechanisms underlying the vegetative structural changes in this ecosystem.

Canyonlands

Like the section discussed above on prairie, the "status and trends" of the canyonlands also hinges heavily on tree cover expansion over the last 35 years. We reiterate that long-term trends cannot be drawn from recent imagery and must consider BASI on piñon-juniper historical stand structure, composition, and disturbance regimes. As the Colorado Forest Restoration Institute describes:

> "Vegetation treatments often are justified in part by asserting that a particular treatment (e.g., tree thinning or prescribed burning) will contribute to restoration of historical conditions, i.e., those that prevailed before the changes wrought by Euro-American settlers. However, in the absence of site-specific information about historical disturbance regimes and landscape dynamics, there is danger that well-meaning 'restoration' efforts actually may move piñon-juniper ecosystems farther from their historical condition."[87]

Rather than relying on near-term RAP data, the final assessment must draw from the NRV report. The definition of NRV in the planning regulations explicitly identifies the need for a "pre-European influenced reference period."[88] This concept has been fundamentally misapplied in the Draft Assessment and must be corrected.

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[83] Draft Assessment, pg. 28 (emphasis added).
[84] USDA Natural Resources Conservation Service (NRCS). 2023. Ecological site R077AY011TX Sand Hills 16-22" PZ (website). U.S. Department of Agriculture, Natural Resources Conservation Service, Ecosystem Dynamics Interpretive Tool (EDIT), Last Modified September 11, 2023. https://edit.jornada.nmsu.edu/catalogs/esd/077A/R077AY011TX
[85] *Id.*, pg. 13.
[86] *Id.*
[87] Romme, W.H. et al. (2008) Historical and Modern Disturbance Regimes, Stand Structures, and Landscape Dynamics in Piñon-Juniper Vegetation of the Western U.S. Colorado Forest Restoration Institute, Colorado State University, Fort Collins, CO (www.cfri.colostate.edu), pg. 1. Available from: https://cfri.colostate.edu/wp-content/uploads/sites/22/2018/03/Romme_DisturbanceRegimes_Report.pdf
[88] FSH 1909.12 Zero Code, pg. 14: "Natural range of variation (NRV). The variation of ecological characteristics and processes over

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IV. Aquatic, Wetland, and Riparian Ecosystems

As in the terrestrial ecosystems, the summary ratings of integrity are confusing, with separate ratings presented for "Ecological Integrity" and "Integrity Rating."[89] It is unclear what accounts for the differences between the two. The final assessment must clearly describe what informs the rankings of ecological integrity, and the difference between the two integrity rating schemes. The final assessment ratings for terrestrial ecosystems must also take into account the Grasslands' 2005 Roads Analysis Report[90] (discussed further in section IX).

Playa Lakes

The Draft Assessment notes several times that past "activities"[91] have degraded playas but does not describe what these activities are, nor what the nine recent playa restoration efforts[92] have entailed. The Draft Assessment claims that "Restoration efforts are contributing to a slight upward trend in integrity [of playa health] (USFS 2024f)." The supporting reference for this[93] and many other claims in the Draft Assessment are internal technical reports that have not been made publicly available. The final assessment should disclose all the relevant information from these technical reports, including what activities have contributed to playa degradation and what restoration efforts have entailed.

Riparian Areas, Non-Playa Wetlands and Groundwater Dependent Ecosystems

We appreciate the Draft Assessment's acknowledgement of the importance of native riparian vegetation for ecosystem integrity: "Native riparian species such as cottonwood and willow have been displaced by invasive tamarisk along much of the stream habitat…. Specifically, the loss of cottonwoods has led to the reduced availability of large woody debris, and increased streambank instability."[94] Given the relative scarcity and vulnerability of plains cottonwoods to invasive tamarisk in the plan area, we find it alarming that the agency has sold firewood permits for cottonwood.[95] It is apparent from the Draft Assessment that a pronounced "need for change" in the plan area is for riparian restoration. As one element of that, the revised plan should prohibit harvest, including fuelwood, of native species in riparian management zones.

Lakes, Ponds, and Reservoirs

When discussing the water quality of lakes and ponds, the Draft Assessment states that "Where livestock are allowed to

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scales of time and space that are appropriate for a given management application. In contrast to the generality of historical ecology, the NRV concept focuses on a distilled subset of past ecological knowledge developed for use by resource managers; it represents an explicit effort to incorporate a past perspective into management and conservation decisions (adapted from Weins, J.A. et al., 2012). *The pre-European influenced reference period considered should be sufficiently long, often several centuries, to include the full range of variation produced by dominant natural disturbance regimes such as fire and flooding and should also include short-term variation and cycles in climate*. The NRV is a tool for assessing the ecological integrity and does not necessarily constitute a management target or desired condition. The NRV can help identify key structural, functional, compositional, and connectivity characteristics, for which plan components may be important for either maintenance or restoration of such ecological conditions." (emphasis added)

[89] Draft Assessment, Table 8, pg. 33.

[90] U.S. Forest Service (2005). Cimarron and Comanche National Grasslands Plan Revision Roads Analysis Report. Pueblo, CO.

[91] Draft Assessment, pg. 36.

[92] *Id*., pg. 36.

[93] U.S. Forest Service. 2024f. Worksheet for playa lakes ecosystems technical reports: Cimarron and Comanche National Grassland. Washington, DC. 19 p.

[94] Draft Assessment, pg. 42.

[95] *Id.*, pg. 78.

congregate around water sources, shoreline trampling leads to increased sedimentation rates"[96] and that livestock are impacting water quality of these lentic water bodies.[97] The final assessment must provide more detailed information on how allotments overlap with or are adjacent to lakes and ponds, and what, if any infrastructure and livestock permit/lease requirements are in place to limit these impacts.

Streams and Rivers

It is apparent from this and other sections of the Draft Assessment that the plan area requires aquatic and riparian restoration, and we request this need be explicitly identified in the "Need for Change." The revised plan should provide management direction for ecological restoration consistent with scientifically accepted best practices, such as those published by the Society for Ecological Restoration.[98]

V. Watersheds

Priority Watersheds for Restoration

We support use of the Watershed Condition Framework (WCF)[99] as a tool to comply with the requirements of the 2012 Planning Rule[100] and strategically direct watershed restoration efforts at the landscape and watershed scales. However, the Draft Assessment relies on WCF reports from 2010, which do not reflect BASI and cannot meaningfully guide restoration moving forward. The Draft Assessment acknowledges this but does not commit to updating the WCF early-on in the planning process. On the one hand, it states that "The Watershed Condition Classification ratings remain static unless there are updates that need to be recorded to reflect changed conditions on the ground."[101] Then it goes on to identify changed conditions on the ground—for example, "It should be noted that these ratings were developed in 2010 and more recent data suggest that water quality and water quantity indicator ratings (See water resource section) may be rated lower at present date"[102] and that "…more recent evidence related to water quality, groundwater depletion and invasive species suggests that watershed conditions have changed since 2010."[103] We agree that watershed changes have occurred since 2010 and that therefore the WCF must be updated in the final assessment to reflect BASI, as required by the 2012 Planning Rule.[104]

Moreover, the 2010 ratings are highly implausible even for the time in which they were made. The plan area has 83 rated watersheds, of which 72 are rated as "functioning properly", 11 are rated "functioning at risk," and *zero* are rated as "impaired."[105] Under the WCF, impaired watersheds have "some physical, hydrological, or biological threshold [that] has been exceeded."[106] Further on, the Draft Assessment describes how the reach of the Cimarron River through the Cimarron National Grasslands now only flows ephemerally, despite its historic perennial flow.[107] Notwithstanding this profound hydrological change, three of the four Cimarron River watersheds are rated as

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[96] *Id.*, pg. 40.
[97] *Id.*, pg. 39.
[98] Gann G.D., et al (2019) International principles and standards for the practice of ecological restoration. Second edition. Restoration Ecology 27:S1-S46 https://doi.org/10.1111/rec.13035
[99] 16 U.S.C. § 6543; U.S. Forest Serv., Watershed Condition Framework 3–4 (2011)
[100] 36 CFR § 219.7: "Every plan must: (i) Identify watershed(s) that are a priority for maintenance or restoration."
[101] Draft Assessment, pg. 46.
[102] Draft Assessment, pg. 43.
[103] *Id.*, pg. 46.
[104] 36 CFR § 219.14
[105] Draft Assessment, pg. 46.
[106] U.S. Forest Service, Watershed Condition Framework 3–4 (2011), pg. 4.
[107] Draft Assessment, pg. 55.

"properly functioning,"[108] with water quantity condition ratings of "good."[109] The WCF for the grasslands must be revised to reflect BASI that flows in the Cimarron River have significantly declined to the point of causing extirpation of several species of native fish.[110] The final assessment must accurately reflect this impaired baseline to help guide restoration priorities in the revised plan.

In addition to WCF priority watersheds, we support the inclusion of a conservation watershed network in the revised plan, where management emphasizes habitat conservation and restoration to support native fish and other aquatic species.[111] Conservation Watersheds serve a distinct planning function from WCF priority watersheds. While the WCF priority watersheds function as tactical and near-term designations to guide the implementation of agency work priorities in the near-term, Conservation Watersheds are more strategic and long-term designations. Conservation Watersheds help to provide conditions that maintain or restore habitat for aquatic species in highly dynamic environments over the duration of a land management plan.[112] To date, Conservation Watersheds have been useful elements of forest plans in portions of Regions 1, 4, 5, and 6, and we would like to see this application expanded to Region 2. The grasslands are a particularly relevant area to invoke Conservation Watersheds because of the exceptional habitat value afforded by certain watersheds and their importance for species viability. For example, the Purgatoire River fish assemblage in Piñon Canyon is composed of ~99.9% native taxa, a freshwater rarity of worldwide significance.[113] A study by scientists at Colorado State University concludes that "Conservation of the Purgatoire River basin should be a priority for ecologists and managers alike given its value as a study system and as habitat for rare fishes."[114] Several watersheds in the plan area serve as strongholds for at-risk aquatic species (e.g., Suckermouth Minnow, Flathead Chub, Smooth Softshell Turtle). The Purgatoire River in the plan area also serves as an important area for the recovery of a recently re-introduced population of Plains Minnow—a species that has been extirpated from the state of Colorado.[115] Inclusion of Conservation Watersheds in the revised plan can contribute to a connected network of aquatic habitats important for the long-term persistence of at-risk species.

Linkages Between Ecosystems

We appreciate the inclusion of this section on ecosystem linkages, while noting that it provides no substantive information about the state of connectivity in the plan area to inform the "need for change" and revised plan. This section must be bolstered in the final assessment to meaningfully characterize the existing connectivity conditions in the plan area.[116] We highlight the informative, coarse-filter connectivity modeling for the Lolo National Forest's Revised Assessment[117] as an example of a useful approach that should be considered for the grasslands. Without knowing where key linkage areas are, it is impossible to effectively plan for them. The "need for change" should

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[108] *Id*., Figure 5, pg. 44.

[109] U.S. Forest Service, Watershed Classification Interactive Map Viewer, Available from: https://usfs.maps.arcgis.com/apps/webappviewer/index.html?id=3abe1c380f72472eb4b47c6cd4766fe5 (last visited October 22, 2025).

[110] Tanner, C. D. (2014). *The effects of water quantity on fish assemblage composition in the Upper Cimarron River* (Master's thesis, Oklahoma State University). Available from: https://openresearch.okstate.edu/server/api/core/bitstreams/507ecba5-e3c5-4d9d-a1b1-d592acfde62f/content (last visited October 22, 2025).

[111] *See* French, C. and Harper, R. (2016, Sept. 30). *Joint memorandum on Conservation Watersheds in Land Management Plans*. U.S. Forest Service.

[112] *Id.*, Attachment A at pg. 3.

[113] Bestgen, K. R., et al. (2017). A dynamic flow regime supports an intact Great Plains stream fish assemblage. *Transactions of the American Fisheries Society*, *146*(5), 903-916 https://doi.org/10.1080/00028487.2017.1310137

[114] *Id.*

[115] U.S. Forest Service, *Cimarron and Comanche National Grasslands Wild and Scenic Rivers Eligibility Study Report* (May 2025) at pg. 13.

[116] *See,* e.g., Williamson, M. A. et al. (2019). Incorporating wildlife connectivity into forest plan revision under the United States Forest Service's 2012 planning rule. *Conservation Science and Practice*, *2*(2), e155 https://doi.org/10.1111/csp2.155.

[117] U.S. Forest Service, Revised Assessment Lolo National Forest Land Management Plan (September 2023), pgs. 149-151.

identify the need to preserve and restore the functionality of key linkage areas—both within riparian and aquatic habitats, and between terrestrial and aquatic ecosystems. The inclusion of a conservation watershed network, as described above, would serve as one tool to facilitate this by maintaining multi-scale connectivity for at-risk fish and aquatic species.

VI. At-Risk Species and Other Highlighted Species

Threatened, Endangered, Proposed, and Candidate Species (TEPC)

Section 7 of the ESA requires consultation when an agency action may affect threatened and endangered species, to ensure that the action "is not likely to jeopardize the continued existence" of any protected species "or result in the destruction or adverse modification" of their critical habitat.[118] Such agency action includes—"any action authorized, funded, or carried out" by a federal agency.[119] Revision of the Cimarron and Comanche land management plan constitutes a federal action[120] under the ESA. The U.S. Fish and Wildlife Service's (FWS) regulations expressly recognize that actions that do not constitute project-level approvals still require consultation, explaining that "Programmatic consultations allow the Services to consult on the effects of programmatic actions such as … [a] proposed program, plan, policy, or regulation providing a framework for future proposed actions."[121] As such, the Forest Service must undertake Section 7 consultation with the Services to ensure that this action is not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species.[122]

The Draft Assessment is unclear on which TEPC species will be included in consultation and conferencing with FWS. Instead, the Draft Assessment misapplies the "known to occur in the plan area" standard for SCC[123] to TEPC species. The SCC identification process should not be confused with requirements under the ESA. The FWS and National Marine Fisheries Service's *Endangered Species Consultation Handbook* identifies the first step in the informal consultation process as clarifying "whether and what listed, proposed, and candidate species or designated or proposed critical habitats *may be* in the action area."[124] This process has not been correctly applied in the Draft Assessment, which concludes "Of all TEPC species, two species, the lesser prairie-chicken and monarch butterfly, are known to occur in the plan area." The relevant question under the ESA is whether TEPC species *may be* in the *action area*, defined under the ESA as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."[125] The final assessment must consistently describe TEPC species

[118] 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.14.
[119] 16 U.S.C. § 1536(a)(2)
[120] 50 CFR § 402.02.
[121] 50 C.F.R. § 402.02 (defining a programmatic consultation as "a consultation addressing an agency's multiple actions on a program, region, or other basis" including consultation on the effects of "[a] proposed program, plan, policy, or regulation providing a framework for future proposed actions."); see also 80 Fed. Reg. 26,832 (May 11, 2015).
[122] 16 U.S.C. § 1536(a)(2)
[123] 36 CFR 219.9(c) "Species of conservation concern. For purposes of this subpart, a species of conservation concern is a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area" (emphasis added).
[124] U.S. Fish and Wildlife Service and National Marine Fisheries Service, Endangered Species Consultation Handbook (1998) at 3-1. Available from: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf (last visited October 22, 2025).
[125] 50 CFR §402.02

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in the context of the action area, and provide clarity on whether regal fritillary, gray wolf, and black-footed ferret may be in the action area.

Section 7(a)(1) of the ESA imposes an affirmative mandate upon federal agencies to use their authorities to conserve species listed under the Act, including the ecosystems upon which they depend.[126] The land management planning process is a critical time for the agency to effect its ESA Section 7(a)(1) obligations,[127] as we describe further below for the federally endangered black-footed ferret.

Black-Footed Ferret

We are very disappointed by the Draft Assessment's scarce content on the endangered black-footed ferret. The Draft Assessment simply characterizes this species as "not known to occur"[128] in the plan area while providing no information on its historical range and abundance in the grasslands, nearest extant population to the plan area, nor potential suitability of the plan area to support reintroduction (Figure 1). The final assessment must provide considerably more information on this endangered species and reflect the agency's ESA Section 7(a)(1) obligations to proactively contribute to its recovery.

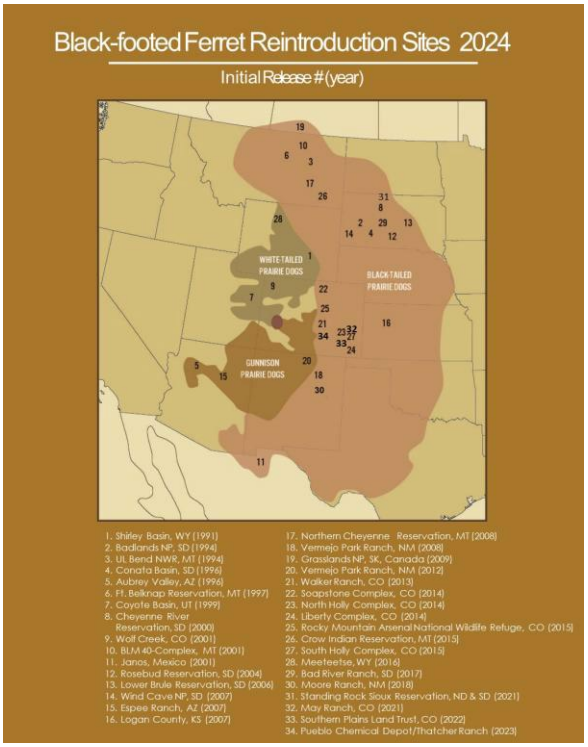

Figure 1 *Map of black-footed ferret reintroduction sites, showing that many reintroductions have occurred in the vicinity of the plan area.*

[126] 16 U.S.C. § 1536(a)(1)
[127] National Marine Fisheries Service Endangered Species Act Section 7 Consultation Conference Review on the Proposal to promulgate a new National Forest System Land Management Planning Rule (36 CFR 219; Planning Rule); *Also see* the preamble to the 2012 Planning Rule, "Compliance with the Endangered Species Act of 1973, as Amended" 77 Fed Reg 21179 (April 9, 2012). Available from: https://www.govinfo.gov/content/pkg/FR-2012-04-09/pdf/2012-7502.pdf (Feb. 17, 2012). Available from: https://www.fs.usda.gov/sites/default/files/planning-conservation-review-2012-rule-stelprdb5359464.pdf (last visited October 22, 2025).
[128] Draft Assessment, pg. 62.

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The 2013 revised FWS's Black-footed Ferret Recovery Plan[129] reflects the shift in program priorities from managing most of the ferret population in captivity to broadly managing a network of wild populations range-wide. The ferret currently depends upon a captive-breeding program for its survival, but the goal of the recovery plan is for self-sustaining populations. As of October 2025, only about 400 individuals were living in the wild and 300 in captivity.[130] Most wild populations are still beset by long-term persistence challenges.

The black-footed ferret relies on prairie dogs as its primary food source and lives in prairie dog burrows.[131] Because of this dependence, black-footed ferret recovery must be integrated with prairie dog conservation. Defenders concurs with the FWS's perspective that:

> "We believe the single, most feasible action that would benefit black-footed ferret recovery is to improve prairie dog conservation. If efforts were undertaken to more proactively manage existing prairie dog habitat for ferret recovery, all other threats to the species would be substantially less difficult to address."[132]

Annual actions to protect prairie dog colonies include employing nonlethal management tools (i.e., vegetation barriers, translocations[133]) versus the poisoning of prairie dogs. Conducting sylvatic (*Yersinia pestis*) plague mitigation efforts to protect prairie dogs such as administering Delta-Dust (deltamethrin) in prairie dog burrows to kill fleas that carry plague. Plague mitigation is a crucial component of conservation efforts, often used in conjunction with other methods like oral vaccinations for black-footed ferrets and prairie dogs. Colorado Parks and Wildlife has pledged to fund plague mitigation for black-footed ferret recovery sites, and this could also occur on the Comanche in the most prairie dog-dense areas. In addition, a minimum of 4,500 acres of black-tailed prairie dog habitat is required for a conservation zone that can support at least 30 black-footed ferrets.[134] An area of 9,884 acres for a colony or complex is also cited as the minimum area necessary for a fully functional grassland ecosystem that can provide suitable habitat for burrowing owls, mountain plover and other species that depend on prairie dogs for survival.[135] The final assessment should assess suitability of habitat to support black-footed ferrets.

The final assessment and revised plan should also address the recreational shooting of prairie dogs. Shooting has been found to leave prairie dog carcasses that contain high levels of lead fragments. Prairie dogs are susceptible to hunting related disturbances and shooting has a cascading effect on population level processes.[136] Specifically, we

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[129] U.S. Fish and Wildlife Service (2013). Recovery plan for the black-footed ferret (*Mustela nigripes*). Available from: https://ecos.fws.gov/docs/recovery_plan/20131108%20BFF%202nd%20Rev.%20Final%20Recovery%20Plan.pdf

[130] Jackson, T. 2025. Black-footed Ferret Recovery Coordinator, U.S. Fish and Wildlife Service, personal communication. Oct. 3, 2025.

[131] U.S. Fish and Wildlife Service (2013), *supra.*

[132] U.S. Fish and Wildlife Service 2013, *supra*, pg. 7.

[133] Although prairie dog translocation does not remove 100% of animals from an area, it is a tool that is successfully used by many managers and biologists to reduce conflicts while simultaneously restoring or creating habitat where desired and does serve as an important mitigation tool for the Forest Service to utilize. *See* Dullum, J.L, et al. (2005). Efficacy of translocations for restoring populations of black-tailed prairie dogs. United States Fish and Wildlife Service: Publications. 30. https://digitalcommons.unl.edu/usfwspubs/30; Long, D. H., et al. (2006). Establishment of new prairie dog colonies by translocation. In *Conservation of the Black-tailed Prairie Dog*, J. Hoogland, ed. Island Press 53-64.

[134] U.S. Fish and Wildlife Service (2013), *supra.*

[135] Proctor, J., B. et al. (2006). Focal areas for conservation of prairie dogs and the grassland ecosystem. Pages 232–247 in J. L. Hoogland, editor. *Conservation of the black-tailed prairie dog*. Island Press, Washington, D.C., USA as cited in U.S. Forest Service (2015) *Black-Tailed Prairie Dog Conservation Assessment And Management Strategy For The Thunder Basin National Grassland*.

[136] Pauli, J., Buskirk, S.W. 2007b. Recreational Shooting of Prairie Dogs: A Portal for Lead Entering Wildlife Food Chains. *Journal of Wildlife Management* 71(1):103-108 https://doi.org/10.2193/2005-620.

propose a permanent prairie dog shooting ban, like the one implemented on the Buffalo Gap-Conata Basin National Grassland in South Dakota—a successfully managed Forest Service ferret recovery site.

The "need for change" should include the need to for black-footed ferret recovery actions in the plan area. Such actions should include designation of a management area to provide for the conservation of prairie dogs and associated species, including the black-footed ferret. The Timpas Unit of the Comanche and the adjoining U.S. Army Pinon Canyon Maneuver Site together provide a large block of land in public ownership with little fragmentation and opportunity for black-footed ferret reintroduction.[137] The Draft Assessment notes that black-footed ferrets were introduced on private lands adjacent to the Comanche National Grassland in 2014 and successfully bred to produce a kit the following year.[138] In addition, there are multiple other ferret reintroduction sites in close proximity to the Comanche National Grasslands, including Heartland Ranch in Bent County and May Ranch in Prowers County, where wild reproduction has been documented the past two years.[139] This demonstrates promise for the plan area to support reintroduction of ferret alongside improved management of prairie dogs and protection against sylvatic plague.

Species of Conservation Concern (SCC)

Evaluation and Identification Process

We incorporate by reference the comments of Humane World for Animals et al. concerning the Regional Forester's "4-indicator process" for identification of SCC.[140] We concur that the SCC identification process results in excluding imperiled species that warrant inclusion on the SCC list. Further on in this section, we highlight specific examples of how the SCC identification process does not adequately represent the spectrum of parameters underlying extinction and extirpation risk.

We share Colorado Parks and Wildlife's[141] and Colorado Natural Heritage Program's[142] concern that several imperiled species are inappropriately excluded from the SCC list, including but not limited to Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*) and several additional mammals and reptiles. Although some species are inappropriately

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[137] Roelle, J.E., et al, eds. (2006). Recovery of the black-footed ferret—progress and continuing challenges: U.S. Geological Survey Scientific Investigations Report 2005–5293, 288 p. Available from: https://pubs.usgs.gov/sir/2005/5293/report.pdf (last visited Nov. 17, 2025), pg. 76.

[138] Draft Assessment, pg. 65.

[139] *See,* Booth, M. (2024, Sept. 19). *New litters of elusive, highly endangered black-footed ferrets produced in southeastern Colorado.* https://coloradosun.com/2024/09/19/black-footed-ferret-colorado-reintroduction-success-babies/ (last visited Dec. 11, 2025).

[140] *See*, Humane World for Animals et al. (Sept. 25, 2025) comments on this Draft Assessment, "Section IV (c) The Regional Forester's Species of Conservation Concern identification process is flawed." Available from: https://cara.fs2c.usda.gov/Public/DownloadCommentFile?LetterId=892043&IsLetter=False. We incorporate by reference the Humane World for Animals' comments and all references therein.

[141] *See*, Colorado Parks and Wildlife, Department of Natural Resources (Sept. 25, 2025) comments on this Draft Assessment, "Cimarron and Comanche National Grasslands (CCNG) Revised Land Management Plan and Species of Conservation Concern Draft List." Available from: https://cara.fs2c.usda.gov/Public/DownloadCommentFile?LetterId=892045&IsLetter=False. We incorporate by reference Colorado Parks and Wildlife's comments and all references therein.

[142] *See*, Colorado Natural Heritage Program (Sept. 25, 2025) comments on this Draft Assessment, "Species Evaluation Report for Herpetofauna on the Cimarron and Comanche National Grasslands and Potential Species of Conservation Concern draft review. Comments from Brad Lambert and Tyler Lovato, research zoologists from the Colorado Natural Heritage Program." Available from: https://cara.fs2c.usda.gov/Public/DownloadCommentFile?LetterId=892064&IsLetter=False We incorporate by reference Colorado Natural Heritage Program's comments and all references therein.

excluded from the SCC list, we generally endorse those that were included on the potential wildlife list. We implore that these species be carried forward as final SCC, with the only modification of adding species.

In addition to the species already considered for SCC, we request that beaver (*Castor canadensis*) be evaluated as a potential SCC, noting the widespread declines in populations across the west, declines of suitable foraging material in Colorado, and rare beaver habitat in the plains.[143] We also ask that the planning team carefully evaluate and consider "species of conservation concern" identified in the U.S. Army's Integrated Natural Resources Management Plan (INRMP) for the Piñon Canyon Maneuver Site,[144] adjacent to the plan area. Doing so is consistent with the planning directives[145] and the 2012 Planning Rule's envisioning of a cross-boundary approach to at-risk species conservation.[146]

After evaluating potential SCC, equivalent rigor must be applied to develop effective plan components to provide the ecological conditions for at-risk species in the plan area. Ecological conditions, as defined in the 2012 Planning Rule, encompasses both habitat and other influences on species and the environment.[147] In order to meet the Rule's mandate to provide for persistence and recovery of at-risk species, the plan must include plan components, including standards or guidelines, that effectively provide the ecological conditions. This includes maintaining or restoring diverse habitat types, addressing threats to those habitats and threats to the species themselves. As described in the examples below, there are instances where the Draft Assessment does not accurately reflect species' ecological condition requirements, and where there is conflict between the main body of the assessment versus the accompanying species evaluations in Appendix C. The final assessment must accurately reflect species' ecological condition requirements.

Indicator 4 problematically limits "ecological condition requirements" to just habitat, with species meeting this indicator if they have "Low population numbers or restricted ecological conditions (habitat) within the plan area."[148] This narrow equation of "ecological conditions" with "habitat" is counter to the broader definition of ecological conditions in the 2012 Planning Rule.[149] The Rule explicitly defines ecological conditions as encompassing factors beyond just habitat, including the "abundance and distribution of aquatic and terrestrial habitats, connectivity, roads and other structural developments, human uses, and invasive species."[150] Species ecological condition requirements must therefore be evaluated comprehensively and not treated synonymously with the acreage of a particular ecosystem.

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[143] Scamardo, J. E., Marshall, S., & Wohl, E. (2022). Estimating widespread beaver dam loss: Habitat decline and surface storage loss at a regional scale. *Ecosphere*, *13*(3), e3962 https://doi.org/10.1002/ecs2.3962.

[144] U.S. Army, Integrated Natural Resources Management Plan for the Fort Carson and the Piñon Canyon Maneuver Site, 2020-2025. Available from: https://home.army.mil/carson/application/files/2516/7518/3649/INRMP2020to2025SIGNED.pdf

[145] FSH 1909.12, Ch. 10, section 12.52d3c: "Species identified by Federal, State, federally recognized Tribes, or Alaska Native Corporations as a high priority for conservation."

[146] 36 CFR § 219.9(b)(2): "In providing such plan components, the responsible official shall coordinate to the extent practicable with other Federal, State, Tribal, and private land managers having management authority over lands relevant to that population."

[147] 36 CFR § 219.19: "Ecological conditions. The biological and physical environment that can affect the diversity of plant and animal communities, the persistence of native species, and the productive capacity of ecological systems. Ecological conditions *include habitat and other influences on species and the environment*. Examples of ecological conditions include the abundance and distribution of aquatic and terrestrial habitats, connectivity, roads and other structural developments, human uses, and invasive species" (emphasis added).

[148] Draft Assessment, Appendix C, Species Evaluations.

[149] 36 CFR § 219.19

[150] *Id.*

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Additional Comments on Specific Species

Lesser Prairie Chicken

Lesser prairie-chicken (*Tympanuchus pallidicinctus*) was excluded from SCC consideration because it was listed as "threatened" under the ESA at the time the Draft Assessment was issued.[151] However, its protected status under the ESA has since been thrown into legal jeopardy.[152] As the species presently stands, it has no federal ESA classification or protection and as such is now eligible to be an SCC. We incorporate by reference the comments by CBD et al.,[153] concurring that there is substantial concern about the ability of lesser prairie-chicken to persist over the long-term in the plan area, thereby warranting SCC status.

In 2016, Defenders, WildEarth Guardians, and the CBD submitted a petition to list the lesser prairie-chicken (*Tympanuchus pallidicinctus*) as threatened or endangered under the Endangered Species Act. In that petition, we identified three possible distinct population segments (DPS) – the Shinnery Oak Prairie DPS, the Sand Sagebrush Prairie DPS, and the Mixed-Grass Prairie and Shortgrass Prairie/CRP Mosaic DPS). We specifically called for an endangered listing of the Shinnery Oak Prairie and Sand Sagebrush Prairie DPSs due to low population numbers, loss of habitat, and significant ongoing threats.

In November 2022, FWS listed the species in two population segments: an endangered Southern DPS (essentially the Shinnery Oak DPS) and a threatened Northern DPS (comprised of the Sand Sagebrush Prairie DPS, and the Mixed-Grass Prairie and Shortgrass Prairie/CRP Mosaic DPS).[154] The Cimarron and Comanche National Grasslands overlap with the sand sagebrush prairie ecoregion or Northern DPS. Lesser prairie-chickens in this ecoregion are at particularly high risk of imminent extirpation.[155] A recent Defenders report underscores the continued threat of habitat loss for the lesser prairie-chicken.[156] The Defenders' analysis showed that thousands of instances of new development have occurred within lesser prairie-chicken ecoregions and thousands of square kilometers of the species' habitat have been developed outright or converted to agriculture, with particularly high rates of habitat conversion for the sand sagebrush ecoregion.[157] As the Draft Assessment acknowledges, lesser prairie-chicken is already approaching extirpation from the plan area, with steady population declines since 1990 and only *one* active lek detected in 2024.[158] Translocation of lesser prairie-chicken has been attempted in the plan area, with researchers concluding "Before translocation, managers may benefit by considering other management strategies, including habitat restoration targeted in areas with the greatest lesser prairie-chicken densities and scaling up habitat restoration to appropriate scales in those areas."[159] Accordingly, the final assessment should evaluate and identify the lesser prairie-chicken as a SCC and the "need for change" should identify the need to contribute its recovery through habitat restoration.

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[151] Draft Assessment, Appendix C, pg. 40.

[152] 87 Fed. Reg. 72,674 (Nov. 25, 2022); Kan. Nat. Res. Coal. v. United States Fish & Wildlife Serv., Case 7:23-cv-00047-DC, slip op. at 14–15 (W.D. Texas, Aug. 12, 2025) (Vacating the Fish and Wildlife Service's listing of the lesser prairie-chicken under the ESA).

[153] *See*, Center for Biological Diversity et al. (Sept. 25, 2025), *supra*.

[154] 87 Fed. Reg. 72,674 (Nov. 25, 2022).

[155] Hagen, C. A., et al. (2017). Lesser prairie-chicken population forecasts and extinction risks: An evaluation 5 years post-catastrophic drought: Prairie-Chicken Population Trend. Wildlife Society Bulletin, 41(4), 624–638. https://doi.org/10.1002/wsb.836

[156] Defenders of Wildlife (2021). Lesser prairie-chicken habitat changes since court delisting, available from: https://defenders-cci.org/files/LPC_habitat_CCI.pdf

[157] *Id.*

[158] Draft Assessment, pg. 60.

[159] Teige, E. C., et al. (2023). Assessment of lesser prairie-chicken translocation through survival and lek surveys. *Wildlife Society Bulletin*, *47*(4), e1493 https://doi.org/10.1002/wsb.1493.

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Black-Tailed Prairie Dog

We incorporate by reference the comments by CBD et al.[160] and Humane World for Animals[161] that demonstrate substantial concern about the ability of black-tailed prairie dogs to persist over the long-term in the plan area, thereby warranting SCC status. The prairie dog has been the target of widespread eradication campaigns across the West. In addition to lethal control programs, sylvatic plague and habitat loss have also contributed to the estimated 98% population decline in prairie dog numbers.[162] The Draft Assessment acknowledges that "In the plan area, declines in black-tailed prairie dog colonies have dictated the lack of presence of black-footed ferrets"[163] while simultaneously concluding black-tailed prairie dog populations in the plan area are not of substantial concern.[164] This is unreasonable and arbitrary. Even if the Forest Service insists on using the Region 2 SCC identification process, it is unreasonable for the black-tailed prairie dog to be excluded on the grounds that it does not meet the criteria for restricted range. The Regional Forester's SCC Identification Process for the Rocky Mountain Region indicates that Indicator 3 (restricted range) should incorporate the species "extent of occurrence," its "area of occupancy," and "range trend," among several other parameters.[165] Prairie dog distribution has been reduced by 98% of the historical range,[166] yet this has not been considered in evaluating Indicator 3—an omission inconsistent with the Region's characterization of its SCC Identification Process.[167]

Recent analyses show that southeast Colorado is one of the best and highest priority areas for prairie dog restoration in the entire Great Plains.[168] This high conservation potential should be recognized in the final assessment and reflected in the "need for change." In developing the revised plan, we believe the Forest Service should prioritize biological considerations related to prairie dog viability and management over lethal control measures intended to address social tolerance of the species with encroachment onto non-federal lands.

Pinyon Jay

We support the identification of pinyon jay (*Gymnorhinus cyanocephalus*) as an SCC, since this bird is recognized at high risk of extinction by several agencies.[169] However, we are concerned with the disparity between the species' ecological condition requirements (as correctly described in the species evaluation) versus the characterization of pinyon-juniper woodlands in the Draft Assessment. Appendix C describes the following habitat dynamics threatening pinyon jay in the plan area:

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[160] *See*, Center for Biological Diversity et al. (Sept. 25, 2025), *supra.*
[161] *See*, Humane World for Animals et al. (Sept. 25, 2025), *supra.*
[162] Kotliar, N.B., et al. (1999), *supra.*
[163] Draft Assessment, pg. 65.
[164] *Id.*, Appendix C, pg. 45.
[165] U.S. Forest Service, The Regional Forester's SCC Identification Process for the Rocky Mountain Region (R2) (June 20, 2024), at Table 1, pg. 5. Available from: https://www.fs.usda.gov/r02/psicc/planning/forest-plan/grasslands-plan-revision-library
[166] Guernsey, N. C., et al. (2023). Post-translocation dynamics of black-tailed prairie dogs (*Cynomys ludovicianus*): A successful conservation and human–wildlife conflict mitigation tool. *Ecology and Evolution*, *13*(1), e9738 https://doi.org/10.1002/ece3.9738.
[167] U.S. Forest Service (June 20, 2024), *supra*, Table 1, pg. 5.
[168] Davidson, A. D., et al. (2025). Potential Landscapes for Conservation of the Black-Tailed Prairie Dog Ecosystem. *Diversity and Distributions*, *31*(1), e13945 https://doi.org/10.1111/ddi.13945; *also see* Colorado National Heritage Program (CNHP) (2025) Homes on the Range: Potential Landscapes for Conservation of the Black-Tailed Prairie Dog Ecosystem, Available from: https://cnhp.colostate.edu/projects/hotr/ (last visited Dec. 11, 2025).
[169] Defenders of Wildlife, *Pinyon Jay: A Rapidly Disappearing Species Desperately in Need of Protection*. Defenders of Wildlife Southwest Office. (2022). https://defenders.org/sites/default/files/2022-08/pinyon-jay-fact-sheet-2022.pdf (last visited Oct. 21, 2025).

> "Due to long-term drought conditions and increase in beetle kill, pinyon juniper forests in the Rocky Mountain Region are dying back and cone crops less abundant which makes food resources scarcer and more unpredictable for jays. Loss of pinyon-juniper woodlands caused by long term drought and climate stressors, insects and disease directly contribute to the pinyon jay decline."[170]

In contrast, the main body of the Draft Assessment claims "Juniper trees are expanding outside of the Canyonlands ecosystems and into the surrounding uplands and this expansion can reduce the herbaceous cover and diversity of the adjacent shortgrass prairie ecosystem."[171] The species evaluation identifies a habitat threat of "removal of trees to accomplish other management priorities"[172] while the body of the Draft Assessment acknowledges that such management activities are actively occurring in the plan area: "Treatments, including mechanical mastication, are currently occurring in the Comanche National Grassland to try and reduce juniper encroachment."[173] The "need for change" and revised plan will have to reconcile these underlying tensions to provide clear management direction that provides the ecological conditions for piñon-juniper obligates, including the pinyon jay.[174] In doing so, we reiterate that the agency must do its best to accurately characterize the historic ecological conditions of the plan area including the structure, composition, spatial distribution and dynamism of the major vegetative systems.

Colorado Checkered Whiptail

The Colorado checkered whiptail (*Aspidoscelis neotesselatus*) is a narrowly endemic species of southeast Colorado that was previously petitioned for federal listing and is recognized as an "Army species at risk" in the INRMP for the Piñon Canyon Maneuver Site adjacent to the plan area.[175] This species consists of all-females that reproduce asexually, yielding offspring genetically identical to the mother, which greatly reduces the genetic diversity of the population.[176] While this aspect has not been considered in any of the region's "4-indicators," it is certainly relevant to assessing its extirpation risk in the plan area because its reproductive biology reduces the population's ability to respond to threats such as climate change or disease. This, coupled with the species' naturally restricted range, habitat loss and population extirpation within that range,[177] demonstrates substantial concern for the species' long-term persistence in the plan area.

It is highly unclear why the Draft Assessment concludes for this species that "Conservation concern does not rise to the level of substantial. Meets indicators 3 and 4. Does not meet indicators 1 or 2."[178] The Regional Forester's SCC Identification Process for the Rocky Mountain Region indicates that Indicator 1 should reflect a species'

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[170] Draft Assessment, Appendix C, pg. 33.
[171] *Id.*, pg. 30.
[172] *Id.*, Appendix C, pgs. 133, 136, 137.
[173] *Id.*, pg. 102.
[174] *See*, e.g., Darr, M., C. et al. 2022. Incorporating bird needs when thinning piñon-juniper woodlands. New Mexico Avian Conservation Partners, Albuquerque, NM, USA. Available from: https://avianconservationpartners-nm.org/wp-content/uploads/2022/02/Incorporating-Bird-Needs-When-Thinning-Pinon-Juniper-Woodlands.pdf; Magee, P. A., & Coop, J. D. (2020). Effects of pinon-juniper woodland thinning on avian communities in the Arkansas River Valley, Colorado. In: Malcolm, Karl; Dykstra, Brian; Johnson, Kristine; Lightfoot, David; Muldavin, Esteban; Ramsey, Marikay. Symposium Proceedings on Pinon-Juniper Habitats: Status and Management for Wildlife-2016. Proceedings RMRS-P-77. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 68-71. (Vol. 77, pp. 68-71).
[175] U.S. Army (2020). *Integrated Natural Resources Management Plan for the Fort Carson and the Piñon Canyon Maneuver Site, 2020-2025*, pg. 53. Available from: https://home.army.mil/carson/application/files/2516/7518/3649/INRMP2020to2025SIGNED.pdf
[176] *Id.*, pg. 138.
[177] *Id.*, pg. 138.
[178] Draft Assessment, Appendix C, Table C-3, pg.

reproductive potential and intrinsic vulnerability.[179] Yet in practice, this indicator has been applied much more narrowly to only consider "Significant threats, caused by stressors on and off the plan area, to populations or the ecological conditions they depend upon (habitat)."[180] There is considerable mismatch between the full spectrum of parameters underlying extinction risk[181] versus its application in the Region's indicator-tallying. Regardless, this species meets even the narrowest application of Indicator 1. The species evaluation notes significant threats to this species and its habitat, including that the "major threat on the plan area is habitat loss due to climate stressors" and that "Populations are threatened by urbanization or agricultural development."[182] A similar issue exists with the narrow application of Indicator 2. The Regional Forester's SCC Identification Process directs that Indicator 2 should reflect not just population and habitat trend but also "range trend" and "vulnerability to threats."[183] This does not accurately represent how Indicator 2 has been applied, which is more narrowly limited to "Declining trends in populations or habitat in the plan area."[184] Colorado checkered whiptail has experienced significant extirpation from Pueblo County, Colorado,[185] adjacent to the plan area, which has functionally reduced its range and reduced potential for recolonization in the plan area. If the Region opts to continue using an indicator method to identify SCC, the indicators must accurately incorporate the full parameters of extinction risk shown in the Region's SCC Identification Process.[186]

It is worth highlighting that the Army's management plan for Colorado checkered whiptail identifies a conservation goal to "initiate conservation partnerships" with adjacent land managers, which includes the Comanche National Grasslands:

> "If listed, private and public lands adjacent to Fort Carson and Piñon Canyon Maneuver Site may also contain suitable habitat for this species. These lands should be considered as an opportunity to provide additional quality habitat to support the local population of COCW within the region. A conservation initiative implemented in cooperation with partners will promote stewardship of the species throughout the region."[187]

The plan revision represents an opportune time to initiate a cross-boundary conservation strategy for this and other at-risk species to prevent the need for future listings.

Swift Fox

Swift fox (*Vulpes velox*) did not make the proposed SCC list because "Conservation concern does not rise to the level of substantial. Meets indicators 1 and 3. Does not meet indicators 2 or 4."[188] We acknowledge that both

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[179] U.S. Forest Service (June 20, 2024), *supra*, Table 1, pg. 5.
[180] Draft Assessment, Appendix C, pg. 20.
[181] U.S. Forest Service (June 20, 2024), *supra*, Table 1, pg. 5.
[182] Draft Assessment, Appendix C, pg. 20.
[183] U.S. Forest Service (June 20, 2024), *supra*, Table 1, pg. 5.
[184] Draft Assessment, Appendix C, pg. 20.
[185] Walker, J. M., et al. (1996). Extirpation of the parthenogenetic lizard *Cnemidophorus tesselatus* from historically significant sites in Pueblo County, Colorado. Herpetological Review 27: 16-17.
[186] U.S. Forest Service (June 20, 2024), *supra*, Table 1, pg. 5.
[187] U.S. Army (2020), *supra,* pg. 139.
[188] Draft Assessment, Appendix C, pg. 46.

Colorado and Kansas consider swift fox populations relatively stable over the past 10 years,[189] although populations have not recovered from historical lows.[190] However, we do not agree that the quality of shortgrass prairie habitat in the plan area is stable for swift fox or many other wildlife species (indicator 2). For example, American bison, pronghorn, and black-tailed prairie dogs historically were dominant herbivores in prairie grasslands and contributed habitat dynamics for many other species.[191] The replacement of native herbivores with domestic cattle is thought to have "indirectly influenced Swift Fox populations by reducing prey populations."[192] Habitat quality in the plan area has also likely been reduced by fire deficits due to fire suppression.[193] High-quality habitat for swift fox consists of a low- to medium-structured grassland without a shrub component.[194] These habitat components appear to be declining in the plan area, as evidenced by increasing representation of shrubs in the Campo RNA.[195] Swift fox also benefit from "a mosaic of grazing intensities…primarily through rotational grazing."[196] It is unclear whether this ecological condition requirement is being met under existing grazing management (see related comments in section VIII). Furthermore, the plan area has a "particularly high" road density,[197] which reduces habitat quality for multiple species via fragmentation. Although swift foxes are fairly tolerant of roads, they may serve as habitat sinks by attracting swift foxes to areas where risk from vehicle mortality is high.[198] These widespread influences that have collectively degraded the quality of shortgrass prairie in the plan area. It is therefore arbitrary to conclude "Shortgrass prairie in the plan area is generally stable" for a multitude of wildlife, including but not limited to swift fox. Indeed, the opposite conclusion is presented for several plants (e.g., Bigelow's Bluegrass, *Poa bigelovii*; Colorado Gentian, *Frasera coloradensis*; Great Plains Flatsedge, *Cyperus lupulinus*), which made the proposed SCC list in part because "Shortgrass prairie has a declining trend in habitat quality in the plan area."[199]

The ecological conditions for swift fox (Indicator 4) were found to be unrestricted because of the abundance of shortgrass prairie in the plan area.[200] The mere presence of shortgrass prairie, however, is not synonymous with the ecological condition requirements of swift fox. Their ecological condition requirements are multifaceted, depending upon intraguild competition with coyotes, prairie patch size, vegetation height, harvest management, disease prevalence, suitable climate, etc.[201] Recent occupancy modeling for swift fox in western Kansas show low predicted use in the plan area,[202] indicating more restricted ecological conditions. The species evaluation should be revised to reflect BASI and this species should be reconsidered for SCC status.

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[189] Peek, Matthew S., ed. 2024. Conservation assessment and conservation strategy for swift fox in the United States – 2023 Update. Kansas Department of Wildlife and Parks, Emporia, Kansas. Available from: https://cpw.cvlcollections.org/files/original/8850de1f7ff1d25217e73702d4d83dae.pdf (last visited Nov. 10, 2025) at pg. 26.

[190] Assal, T.J., Melcher, C.P., and Carr, N.B. (2015). Southern Great Plains Rapid Ecoregional Assessment: Pre-Assessment Report. (Report). Open-File Report. 2015-1003. Reston, VA: U.S. Department of the Interior, Geological Survey (USGS). 284 p. https://doi.org/10.3133/ofr20151003 at pg. 261.

[191] *Id.*, pgs. 260-261.

[192] Sovada, M. A., et al. (2009). Historical range, current distribution, and conservation status of the swift fox, *Vulpes velox*, in North America. *The Canadian Field-Naturalist*, *123*(4), 346-367 https://doi.org/10.22621/cfn.v123i4.1004 at pg. 347

[193] Assal, T.J., et al. (2015), *supra*, pg. 261.

[194] Sovada, M. A., et al. (2009), *supra,* pg. 351.

[195] Draft Assessment, pgs. 132-133.

[196] *See*, Peek, Matthew S., ed. (2024), *supra,* pg. 45.

[197] Draft Assessment, pg. 66.

[198] *See*, Assal, T.J., et al. (2015), *supra*, pg. 261.

[199] Draft Assessment, Appendix C, pg. 2.

[200] Draft Assessment, Appendix C, pg. 50.

[201] *See*, Peek, Matthew S., ed. (2024), *supra.*

[202] *See* Figure 3 in Werdel, T.J. et al. (2023). Strategic Grassland Conservation for Swift Foxes in Multi-Use Landscapes. Biological Conservation 277: 109864. https://doi.org/10.1016/j.biocon.2022.109864

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Bats

The plan area supports multiple species of bats, none of which made the proposed SCC list. Agricultural intensification, such as habitat and connectivity losses, are among the major drivers of bat population declines,[203] but this is not accounted for in the Region's indicator tallying for substantial concern. The plan area represents an "island" of intact grasslands in an otherwise agricultural landscape. This is important context for evaluating "substantial concern" for species viability, since extirpation risk in the plan area is influenced by factors like patch size, population isolation, dispersal ability, etc.[204] As such, the SCC evaluation process must consider BASI showing certain bat species are more strongly affected by fragmentation and patch isolation than others, according to differences in their ecology.[205]

All bat species that regularly occur in the southern Great Plains are primarily insectivores, and their ecological conditions include not just roosting but also foraging habitat. A growing body of literature documents widespread insect declines, including cascading effects on other species.[206] Drought can intensify insect prey supply shortages and reduce reproductive success, effectively reducing habitat quality and probability of persistence.[207] Drought is not merely a hypothetical threat, but is already impacting the plan area.[208] The Draft Assessment considers the impact of drought on available forage for domestic livestock, but the final assessment and SCC identification process must also grapple with the ramifications for species' ecological condition requirements and for long-term population viability.

We use bats to illustrate how the Region's "indicator tallying" is applied arbitrarily. For example, Little Brown Bat (*Myotis lucifugus*) was found to meet indicator 1, but not indicators 2, 3, or 4.[209] This species is a water-surface forager and the species evaluation notes "Riparian habitat on the plan area has declined."[210] It is therefore unclear why this species did not meet indicator 2 (declining habitat) when other riparian-dependent species did (e.g., Gummy Lovegrass, *Eragrostis curtipedicellata;* May Grass, *Phalaris caroliniana,* New Mexico Blackberry, *Rubus*

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[203] Browning, E., et al. (2021). Drivers of European bat population change: a review reveals evidence gaps. *Mammal Rev.* 51, 353–368. doi: 10.1111/mam.12239; Put, J. E., Fahrig, L., and Mitchell, G. W. (2019). Bats respond negatively to increases in the amount and homogenization of agricultural land cover. *Landscape Ecology* 34, 1889–1903 https://doi.org/10.1007/s10980-019-00855-2.

[204] MacArthur, R. & Wilson, E. (1967) The theory of island biogeography. Princeton Press, Princeton. *Also see*: Fuentes-Montemayor, E., et al. (2013). Fragmented woodlands in agricultural landscapes: The influence of woodland character and landscape context on bats and their insect prey. *Agriculture, ecosystems & environment*, *172*, 6-15 https://doi.org/10.1016/j.agee.2013.03.019; Adams, H., & McGuire, L. P. (2022). Island biogeography theory and the urban landscape: stopover site selection by the silver-haired bat (*Lasionycteris noctivagans*). *Canadian Journal of Zoology*, *100*(4), 243-250 https://doi.org/10.1139/cjz-2021-0214.

[205] *See*, Fuentes-Montemayor, E., et al. (2013), *supra*.

[206] Wagner, D. L., et al.. (2021). Insect decline in the Anthropocene: Death by a thousand cuts. *Proceedings of the National Academy of Sciences*, *118*(2), https://doi.org/10.1073/pnas.2023989118.

[207] *See*, e.g., NatureServe Explorer (2025) for *Myotis lucifugus:* "…*drought and extreme heat events exacerbated in time and space by climate change are an increasing threat to this and other bat species* (Hayes and Adams 2017). Evidence suggests mass lethal hyperthermia events at hibernacula are increasing (see O'Shea et al 2016) and *substantial decreases in reproduction during droughts in some species have been empirically demonstrate*d (Adams 2010)… Management actions for this species should include continuing the on-going program of preventing human access to sensitive caves and other structures that support colonies, precautionary measures to prevent inadvertent spread of white-nose syndrome by researchers and others (gloves, sterilization of equipment, etc.), surveys of older or unoccupied buildings to determine colony use prior to destruction or remodel, and *maintenance of flows in waterways near colonies to support insect food supplies especially in areas prone to frequent drought"* (emphasis added).

[208] Draft Assessment, pg. 80: "The U.S. Drought Monitor Data show that cyclical drought conditions have become very common over the last 25 years, with dry conditions persisting in between periods of major drought (National Drought Mitigation Center 2025). Conditions over the last 25 years show a consistent drought in the region."

[209] *Id*., Appendix C, pg. 46.

[210] *Id*., Appendix C, pg. 25.

neomexicanus).[211] It is similarly hard to understand why the species did not meet indicator 3 (restricted range): the species evaluate describes that "the species is generally absent from the southern Great Plains region (NatureServe 2024)." Lastly, the species did not meet indicator 4 (restricted ecological conditions) despite the species evaluation concluding that suitable hibernacula sites in the plan area are restricted.[212] As another example, Townsend's Big-eared Bat (*Corynorhinus townsendii*) did not meet indicator 4, but the species evaluation characterizes roosts sites as a restricted ecological condition in the plan area.[213] These inconsistency issues with indicator tallying are widespread across species must be corrected in the final assessment.

Bumble Bees

We appreciate the Draft Assessment's recognition of the importance of the plan area in providing for native pollinators, and the inclusion of the Morrison's bumble bee (*Bombus morrisoni*) on the proposed SCC list. However, the Draft Assessment underestimates the temporal occupation by bumble bees, stating that "Bumble bee (*Bombus* spp.) are present when flowering plants are available."[214] This fails to account for the plan area's role in providing nesting and overwintering habitat (hibernacula) for bumble bees and other pollinators. As described in the species evaluation, Morrison's bumble bee has "three basic habitat requirements: suitable nesting sites for the colonies, nectar and pollen from floral resources available throughout the duration of the colony period (spring, summer and fall), and suitable overwintering sites for the queens."[215] The Draft Assessment is inappropriately limited to just one of those ecological condition requirements, but the revised plan must provide for all three.

Focal Species

The 2012 Planning Rule defines focal species as:

> "A small subset of species whose status permits inference to the integrity of the larger ecological system to which it belongs and provides meaningful information regarding the effectiveness of the plan in maintaining or restoring the ecological conditions to maintain the diversity of plant and animal communities in the plan area. Focal species would be commonly selected on the basis of their functional role in ecosystems."[216]

We incorporate by reference the comments on focal species by Center for Biological Diversity et al.[217] and echo that the way in which the Draft Assessment has lumped focal species under "other highlight species" is problematic. It is unclear in this context if the Forest Service intends this discussion of focal species as formal reference to the 2012 Planning Rule's requirement for the selection of focal species for monitoring. The final assessment must clearly define focal species, and when and how they will be identified in the planning process.

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211 *Id.*, Appendix C, Table C-1.
212 *Id.*, Appendix C, pg. 25.
213 *Id.*, Appendix C, pg. 57.
214 *Id.*, pg. 28.
215 *Id.*, Appendix C, pg. 64.
216 36 C.F.R. § 219.9 (emphasis added).
217 *See*, Center for Biological Diversity et al. (Sept. 25, 2025), *supra.*

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The Rocky Mountain Research Station (RMRS) recently developed a toolkit to assist forests with selecting focal species under the 2012 Planning Rule.[218] The agency should capitalize on this resource to inform selection of effective focal species and consult with its research scientists who have deep expertise in this subject, in addition to considering tribal and public input. We request that the planning team host a workshop to facilitate a transparent and informed process for selection of focal species. At a minimum, the planning team should share draft "focal species selection worksheets" from the RMRS toolkit and invite expert and public input. Focal species should be selected that represent the condition of specific habitats or ecological processes; the number of focal species should be determined by the number appropriate and applicable to the ecosystem. Below we offer some potential focal species that warrant consideration in the revised plan (Table 1).

Table 1 *Recommendations for focal species to further consider through a focal species selection worksheet from the Rocky Mountain Research Station's "toolkit to assist Forest Service national forests and grasslands with selecting focal species under the 2012 Planning Rule."*

Ecosystem	Potential focal species	Rationale for consideration
Shortgrass prairie	Mountain plover (*Anarhynchus montanus*)	As described in the species evaluation,[219] the status of mountain plover is thought to be indicative of the health of the shortgrass ecosystem; the plan area contains suitable breeding habitat and no major external confounding factors.
Shortgrass prairie	Old world bluestem (*Bothriochloa ischaemum*)	This is an introduced perennial grass and is correctly described in the assessment as negatively impacting the integrity of the shortgrass prairie ecosystem by significantly reducing plant diversity.[220]
Shortgrass prairie	Swift fox (*Vulpes velox*)	Conservation of shortgrass prairie for swift foxes may provide an umbrella of protection for other at-risk species that also inhabit this ecosystem.[221] The Forest Service could potentially capitalize on existing population monitoring being done by Colorado Parks and Wildlife.[222]
Sandsage prairie	Sandsage Prairie-clover (*Dalea cylindriceps*)	This is a perennial, Great Plains endemic plant with a large population in the plan area. It is reflective of ecological integrity of the sandsage prairie, and can reflect impacts of overgrazing, invasive species (especially cheatgrass), heavy off-road vehicle use, and potentially road maintenance.[223]
Sandsage prairie	Ghost Tiger Beetle (*Ellipsoptera lepida*)	Species is a microhabitat specialist that depends upon open, unstable sand dunes. It could be used to monitor the efficacy of plan direction in providing for blowouts as a dynamic feature within the broader sandsage prairie ecosystem (e.g., protection from vegetative stabilization, sand compaction by ATVs, etc.) [224]

[218] Taylor, E. et al. (2025). A toolkit to assist Forest Service national forests and grasslands with selecting focal species under the 2012 Planning Rule. Research Note RMRS-RN-104. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 49 p. https://doi.org/10.2737/RMRS-RN-104 (last visited Oct. 2, 2025).
[219] Draft Assessment, Appendix C, pg. 122.
[220] *Id.*, pgs. 16, 25, 26, and Appendix A at pg. 33
[221] *See*, Assal, T.J., et al. (2015), *supra,* pg. 261.
[222] Peek, Matthew S., ed. 2024. Conservation assessment and conservation strategy for swift fox in the United States – 2023 Update. Kansas Department of Wildlife and Parks, Emporia, Kansas, pg. 14. Available from: https://cpw.cvlcollections.org/files/original/8850de1f7ff1d25217e73702d4d83dae.pdf (last visited Nov. 10, 2025).
[223] Draft Assessment, Appendix C, pg. 440.
[224] Draft Assessment, Appendix C, pgs. 39-40.

Canyonlands	Pinyon jay (*Gymnorhinus cyanocephalus*)	Species is a piñon-juniper obligate and reflective of the ecological integrity of this ecosystem. Species is likely to be responsive to plan implementation, such as vegetation management.[225]
Playa lakes	Couch's spadefoot (*Scaphiopus couchii*)	Spadefoot toads, because of their small body size, are among the most responsive amphibians to wetland structure and connectivity and can be expected to decline with playa isolation.[226] This could therefore be a meaningful indicator of playa health and connectivity.
Riparian areas	Tamarisk (*Tamarisk* spp.)	Invasive tamarisk is displacing native riparian vegetation in the plan area and therefore represents an important aspect of the ecological integrity of riparian areas (or lack thereof). It is also directly managed by the agency and can be used to reflect plan effectiveness in directing toward riparian restoration.

VII. Forest Management

This section of the Draft Assessment shares many of the same issues described above in section III. Terrestrial Ecosystems. On the one hand, it acknowledges the impacts of the homestead era when "junipers were cut for fence posts"[227] due to their natural resistance to rotting. On the other hand, it problematically suggests need for juniper removal (post and pole harvests, mechanical removal) based on RAP data from 1990-2023.[228] The "status and trends" section cannot be based solely off this short-term RAP data but must be considered within the NRV.[229] While the body of scientific information around the ecology of pinyon-juniper woodlands is growing, we still have much to learn regarding, for instance, historical trends, fire histories, old growth, genetics, indigenous knowledge, climate change effects, and restoration effectiveness. In 2024, the Bureau of Land Management in 2024 held expert workshops on pinyon-juniper ecosystems and created a website to capture presentations and scientific literature.[230] The final assessment must evaluate the condition of pinyon and juniper ecosystems within the plan area in the context of recent and ongoing scientific inquiry. The final assessment must also acknowledge the BASI demonstrating that mastication in piñon-juniper woodlands can contribute to expansion of non-native plants, including cheatgrass.[231]

VIII. Rangeland Management

A salient, overarching example of the absence of BASI in the Draft Assessment is the omission of data on current rangeland conditions in the plan area.[232] The Draft Assessment makes sweeping assumptions of ecosystem health

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[225] Draft Assessment, Appendix C, pgs. 133, 138.

[226] Gray, M. J. et al. (2004). Influence of agricultural landscape structure on a Southern High Plains, USA, amphibian assemblage. *Landscape Ecology*, *19*(7), 719-729 https://doi.org/10.1007/s10980-005-1129-3.

[227] Draft Assessment, pg. 78.

[228] Draft Assessment, pg. 78.

[229] 36 CFR § 219.19; FSH 1909.12 Zero Code

[230] *See* Bureau of Land Management website entitled "Workshop on management and conservation of pinyon and juniper woodlands" available at https://www.blm.gov/workshop-management-and-conservation-pinyon-and-juniper-woodlands (accessed November 5, 2025). *Also see: Management and Conservation of Pinyon and Juniper Woodlands Public Workshop Hosted by the Bureau of Land Management and Forest Service Annotated Literature and Websites* available at https://www.blm.gov/sites/default/files/docs/2024-05/PJ-Workshop_Annotated-Literature-and-Websites_2024.pdf and attached.

[231] Coop, J. D., et al. (2017). Mastication treatment effects on vegetation and fuels in piñon-juniper woodlands of central Colorado, USA. *Forest Ecology and Management*, *396*, 68-84 https://doi.org/10.1016/j.foreco.2017.04.007.

[232] *See*, Center for Biological Diversity et al. (Sept. 25, 2025), *supra*. More generally, *see:* Molvar, E.M., et al. (2024), *supra*. *Project, 128 pp.*

without supporting evidence, such as claiming "Current management does not authorize grazing at levels that would harm riparian ecosystems or compromise their long-term health."[233] Without any substantiating grazing monitoring data, this claim is baseless. Moreover, this claim directly conflicts with statements made in several SCC evaluations: "Most of the plan area is grazed, and the current livestock grazing regime differs from the historic bison-dominated grazing regime in several ways; downward trends in range condition have also been documented in some portions of the plan area (USDA Forest Service 2005c); CCNG Ch 20)"[234] and "Most of the plan area is grazed, with a high proportion of range condition in the plan area being at "fair," "poor," or "very poor" condition ((USDA Forest Service 2005c) Ch 20; Kansas SWAP)."[235] While these statements in the SCC evaluations have supporting citations, those in the Draft Assessment purporting no compromised land health from grazing are unfounded. The final assessment must include data to substantiate conclusions on land health.

The Draft Assessment indicates that grazing monitoring information is available: "In compliance with the current LRMP, permit administration focuses on vegetative condition and trend, forage utilization, livestock numbers, and implementing the grazing strategy. This monitoring verifies if grazing practices are achieving rangeland management goals."[236] Presumably, the agency's monitoring data is accurate and reliable, and it is certainly relevant to the issues being considered in the assessment. As such, the grazing monitoring data constitutes BASI and should be incorporated into the final assessment, used to inform the Need for Change, and shared with the public for the purposes of informing this planning process.

The final assessment must provide more specific information about the existing grazing management.[237] For example, the Draft Assessment states that three different grazing management systems are used in the plan area (rest-rotation, deferred-rotation, and continuous system),[238] but does not provide the representation of each grazing system across allotments. The final assessment must show the proportion of allotments managed according to these three different grazing systems, as this information is relevant to characterizing current range management in the plan area. The final assessment should also include a table showing the head numbers authorized annually since the NEPA decision for the Allotment Management Plans. This table should show how authorized livestock numbers fluctuate in response to annual precipitation to substantiate that the agency is managing stocking rates in response to drought conditions.[239] The final assessment should also indicate if ungrazed reference areas exist and sustained to inform our understanding of the effects of grazing management and provide relevant baselines for restoration activities.[240] If not, the need for change statement should acknowledge this need as best practice for ecological restoration is to utilize natural reference areas.[241]

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[233] Draft Assessment, pg. 19.
[234] *Id.*, Appendix C, pgs. 3, 64
[235] *Id.*, Appendix C, pg. 65.
[236] *Id.*, pgs. 79-80.
[237] *See* FSH 1909.12, Ch. 10, Section. 12.32.
[238] Draft Assessment, pg. 80.
[239] *Id.*, pg. 80.
[240] FSH 1909.12, Ch. 10, Section. 12.32: "The Interdisciplinary Team should identify and evaluate available information about range such as: 1. The current range condition in the plan area and trends influencing the range conditions. Relevant information can include current diversity and proportion of grazing arrangements within the plan area (for example, collaborative experiments, conventionally grazed lands, non-use areas.)" (emphasis added). Also *see, e.g.,* Prober, S. et al. (2002). *Determining reference conditions for management and restoration of temperate grassy woodlands: relationships among trees, topsoils and understorey flora in little-grazed remnants.* Australian Journal of Botany. 50. 687-697. 10.1071/BT02043. Sarr, D. Riparian Livestock Exclosure Research in the Western United States: A Critique and Some Recommendations; and Environmental Management 30, 516–526 (2002). https://link.springer.com/article/10.1007/s00267-002-2608-8.
[241] *See* Gann et al. (2019), *supra.*

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IX. National Forest System Roads, Trails, and Infrastructure

While we recognize that the land management plan revision process is distinct from the travel management planning process, the revised plan can and should establish objectives, desired conditions, and standards and guidelines that frame subsequent travel management actions and proposals. The Draft Assessment describes that the existing road network in the plan area is almost 4,000 miles,[242] and that extreme weather and erosion events are causing travelers to "deviate from the traveled way due to surface damages."[243] Ambiguously, the Draft Assessment states that "No differentiation in symbology exists on public maps and management strategies are the same due to their current designation. [A modern travel management analysis could better differentiate between routes needed for permitted use and those which are managed and recommended for public recreational use.]"[244]

The final assessment should clarify the unit's travel management history, incorporating the Roads Analysis Report that the Grasslands completed in 2005[245] and information on any subsequent travel management plans or travel analysis reports that have been completed pursuant to 36 CFR 212 subparts A and B. If those documents do not exist, the assessment must acknowledge their absence and that the National Grasslands potentially are not fully in compliance with subparts A and B. This includes failure to identify a minimum road system as required under subpart A.

The final assessment should disclose the annual cost to maintain the designated transportation (road, route and bridge) system on the National Grasslands and the annual funding that the unit receives for road and route maintenance. It should also disclose the current deferred transportation system maintenance backlog for the unit.[246] The final assessment should describe the ecological and socio-economic effects of the current transportation system.[247]

Because the condition of wildlife and habitat is inversely affected by roads and route densities[248], the final assessment should identify route densities across the units and where densities exceed scientifically identified

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[242] Draft Assessment, pg. 108.
[243] *Id*., pg. 108.
[244] *Id*., pg. 110.
[245] U.S. Forest Service (2005). Cimarron and Comanche National Grasslands Plan Revision Roads Analysis Report. Pueblo, CO.
[246] While dated, the 2005 Roads Analysis Report, *supra,* describes the gap between needed funded and appropriated funding (in 2004 dollars) as follows:

> "Current annual and deferred maintenance and CIP [Capital Investment Program] needs for the Grasslands roads total almost $1.8 million from the 2004 surveys. Current road management actual budgets for FY 03 were $81,733 and nearly half that for FY04 at $48,858. This is for National Forest Jurisdiction roads: 57.4 miles of maintenance level 3 roads and 1.2 miles of maintenance level 4 roads. This does not meet the needs of the annual and deferred maintenance or CI needs for the Cimarron and Comanche National Grasslands. This is a problem because the level of funding does not keep up with the amount of road work necessary."

This 2004 calculation, which show an enormous gap between needed and received funds, covers about 60 miles of roads and not the 4000 miles of routes estimated in the current assessment.
[247] The 2005 Roads Analysis Report, pgs. 13-14, discusses effects of the passenger vehicle system, which include for example limited quiet opportunities due to the heavily roaded nature of the area; increased hunter access and pressure on hunted species; and road-stream crossings effects on sedimentation.
[248] WildEarth Guardians. (2020). The Environmental Consequences of Forest Roads and Achieving a Sustainable Road System. Available from: https://pdf.wildearthguardians.org/support_docs/Roads-Lit-Review-2020.pdf (last visited Nov. 17, 2025).

thresholds.[249] As discussed above in section VI, roads are a part of "ecological conditions"[250] and can represent a form of ecological restrictedness if such road density thresholds are exceeded. Numerous at-risk species in the plan area are threatened by roads, such as smooth softshell turtle (*Apalone mutica*), red-spotted toad (*Anaxyrus punctatus*), Chihuahuan green toad (*Anaxyrus debilis*), couch's spadefoot (*Scaphiopus couchii*), western massassauga (*Sistrurus tergeminus*), and many rare plants.[251] The need to provide at-risk species protection from road-related threats is particularly important to codify in the revised plan given the agency's stated intention to rescind the Travel Management Rule (TMR).[252]

The need for change statement must include the need to identify and work toward an appropriately sized (i.e., minimum necessary) and well-maintained transportation system that supports the Forest Service's multiple use and sustained yield mission and the planning rule's ecological integrity objective. The need for change statement must specifically identify the need to identify a minimum road system, complete an updated travel analysis and travel management plan, adopt a "closed unless marked on a map" paradigm, and publish an updated motor vehicle use map that differentiates the type of vehicle and season of use for each route.

X. Designated Areas

Research Natural Areas

Research Natural Areas (RNAs) are the cornerstone of the sciences of resource management and serve as vital "outdoor laboratories" from which to increase our knowledge about ecological dynamics. The plan area contains the Campo RNA that was designated in 1987 for its intact example of the shortgrass prairie ecosystem.[253] The Draft Assessment describes that the condition of this RNA has degraded since its establishment and refers to "ongoing disturbances,"[254] including road maintenance and livestock grazing, that have gradually shifted the vegetational community to one more characteristic of sandsage prairie. The Draft Assessment concludes "These changes in plant composition called into question the continued viability of the RNA as a reference site for the shortgrass prairie ecosystem type. The 2008 review recommended vegetation monitoring to confirm these observations."[255] If monitoring has been done since the 2008 RNA review, this data is not included in the Draft Assessment and should be. The Forest Service's national strategy for the RNAs program directs that these areas should be "managed in conditions minimally disturbed by human activities."[256] The Draft Assessment suggests lack of proper management, noting that "The RNA is not situated within any grazing allotment, but it is also, partially by design, not completely fenced in. Humans, wildlife, and livestock may access the site."[257] Since no other reference site for the shortgrass

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[249] *Id.*
[250] 36 CFR § 219.19
[251] Draft Assessment, Appendix C, pgs. 8, 10, 13, 14, 15, 16, 17, 18, 28, 29, 36
[252] *See* U.S. Office of Info. and Regul. Affs., Unified Agenda (Spring 2025), "Travel Management Rule Repeal" RIN: 0596-AD70, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202504&RIN=0596-AD70 (last accessed Nov. 17, 2025).
[253] Draft Assessment, pg. 132.
[254] *Id.*, pg. 132.
[255] *Id.*, pg. 133.
[256] U.S. Forest Service, Research Natural Areas Program, National Strategy: Opportunities for the Future (July 1993). Available from: https://research.fs.usda.gov/sites/default/files/2023-07/research-natural-areas-program-national-strategy.pdf (last visited October 23, 2025).
[257] Draft Assessment, pg. 132.

prairie ecosystem has been identified in the plan area,[258] the revised plan should include plan components that prevent against ongoing degradation of this RNA.[259]

Zoological Areas

We strongly support retention of Comanche Lesser Prairie-Chicken Habitat Zoological Area in the revised plan, with a management emphasis on habitat management to support and recover lesser prairie-chicken. Since the Draft Assessment notes there are no longer any active leks within this Zoological Area despite it once supporting one of the highest densities of lesser prairie-chickens in the state,[260] the "need for change" should identify the need for improved management of this area to support species recovery.

As described further in section VIII. Rangeland Management, the Draft Assessment repeatedly mentions grazing monitoring data but nowhere presents this data. The "status and trends" for the Comanche Lesser Prairie-Chicken Habitat Zoological Area merely states "The Forest Service is required to monitor range conditions for impacts from livestock grazing"[261] yet no trend data is included. This section of the assessment should be revised to include relevant habitat and lek trend data for this designated area, consistent with the Planning Rule requirements for BASI.[262]

Potential Designated Areas

We commend the Forest Service for conducting this eligibility study in accordance with the Wild and Scenic Rivers Act of 1968,[263] the 2012 Planning Rule,[264] and the Forest Service Land Management Planning Handbook directives.[265] We strongly support the finding that the 20.8-mile segment of Purgatoire River is eligible and possesses many Outstandingly Remarkable Values (ORVs). The eligibility report does an admirable job of using BASI to demonstrate that Purgatoire River has outstandingly remarkable fish and wildlife values, including its ~99.9% native fish assemblage, functionality as a key ecological corridor, and ecological importance for numerous at-risk wildlife species including Monarch Butterfly, Couch's Spadefoot, Plains Leopard Frog, Smooth Softshell Turtle, Lewis's Woodpecker, Colorado Checkered Whiptail, and Long-nosed Snake.[266] We concur with these findings in the eligibility report and look forward to management direction in the revised plan to maintain its outstandingly remarkable fish and wildlife values.

We were able to access the wilderness evaluation report; however, the hyperlink it contains to the Cimarron and Comanche National Grasslands Inventory report[267] is restricted to USDA staff. Forest Service policy requires that the wilderness inventory be made public prior to undertaking the evaluation with the purpose of "present[ing] a transparent description of how the inventory process was conducted and the results of the inventory."[268] The Forest Service should make the wilderness inventory publicly available along with the wilderness evaluation report.[269] The

[258] *Id*, pg. 133.
[259] 36 CFR § 219.10(b)(vi)
[260] Draft Assessment, pg. 133.
[261] *Id*, pg. 134.
[262] 36 CFR § 219.3
[263] Wild and Scenic Rivers Act § 5(d)(1), 16 U.S.C. § 1276(d)(1)
[264] 36 CFR § 219.7(c)(2)(vi)
[265] FSH 1909.12, Ch. 80
[266] U.S. Forest Service, Cimarron and Comanche National Grasslands Wild and Scenic Rivers Eligibility Study Report (May 2025) at pg. 13.
[267] U.S. Forest Service, Cimarron and Comanche National Grasslands, Wilderness Evaluation (March 2025) at pg. 1.
[268] FSH 1909.12, Ch. 70 (2015), section 71.3.
[269] *Id.*

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wilderness evaluation highlights that the Picket Wire Canyon area supports rare ecological features, including the largest bighorn sheep herd in that State of Colorado and the Purgatoire River that has outsized regional importance for aquatic and terrestrial species.[270] It concludes that, with reshaping, the Picket Wire Canyon area has wilderness characteristics.[271]

Conclusion

The integrity of the Cimarron and Comanche National Grasslands is underpinned by intricate connections between wildlife. Prairie dogs are a key disturbance agent in the prairie landscape: creating islands of short-grass habitat, reducing soil compaction and increasing water infiltration. They serve as the prey base for many predators including black-footed ferrets, hawks, eagles, badgers and swift fox. Grassland birds like mountain plovers and burrowing owls nest in their colonies. The revised plan must ensure protection and recovery of wildlife, which are integral to the ecological sustainability of the grasslands.

Thank you for considering these comments. We welcome the opportunity to meet with Forest Service staff to discuss these comments and work with you on plan development as the revision effort progresses.

Sincerely,

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[270] U.S. Forest Service, Cimarron and Comanche National Grasslands, Wilderness Evaluation (March 2025) at pg. 8.
[271] *Id.*, pg. 5.