

Name and contact information (Optional, but it helps us follow up if we need clarification):

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## **Discussion Topic 1: Human Use and Heritage Resources (Recreation activities, Developed and Dispersed Recreation, Cultural and Historic, Access, Scenery, Socioeconomics)**

**State a problem and explain why** (*define the problem, why is it a problem, what are you comparing it to and what has changed that desired condition?*)

The Assessment describes that the existing road network in the plan area is almost 4,000 miles, and that extreme weather and erosion events are causing travelers to “deviate from the traveled way due to surface damages.” The condition of wildlife habitat is inversely affected by roads and route densities. Roads are a part of “ecological conditions” 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 swift fox, smooth softshell turtle, red-spotted toad, Chihuahuan green toad, couch’s spadefoot, western massassauga, etc.

### **What needs to be changed to address this problem**

The “need to change” 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 2012 Planning Rule’s ecological integrity objective. The “need to 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.

### **State a problem and explain why**

The Assessment acknowledges that “In the plan area, declines in black-tailed prairie dog colonies have dictated the lack of presence of black-footed ferrets.” Prairie dog shooting is allowed on the Cimarron-Comanche National Grassland, despite the fact that prairie dog shooting significantly reduces black-tailed prairie dog populations and population densities, alters prairie dog behavior, and may decrease colony expansion rates. Recreational shooting of prairie dogs can have a destabilizing effect on survival of prairie dogs in plague enzootic conditions and lowered black-tailed prairie dog reproductive output.<sup>1</sup> Prairie dog shooting may also harm non-target species, such as the burrowing owl, ferruginous hawk, and mountain plover. Recreational shooting of prairie dogs can cause severe, long-term impacts, including 82% declines in reproductive output and high stress levels.<sup>2</sup> The species evaluation for black-tailed prairie dog does not adequately address the impacts of recreational shooting. NatureServe, a reference cited in the species evaluation, notes “Persecution for management of injury risk to livestock and competition for forage is likely now a local threat”<sup>3</sup> to black-tailed prairie dogs.

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<sup>1</sup> See pgs. 165-168 in Seglund, A.E. and P.M Schnurr. (2010) Colorado Gunnison’s and white-tailed prairie dog conservation strategy. Colorado Division of Wildlife, Denver, Colorado, USA.

<sup>2</sup> Pauli, J.N. and Buskirk, S.W. (2007) Risk-disturbance overrides density dependence in a hunted colonial rodent, the black-tailed prairie dog *Cynomys ludovicianus*. *Journal of Applied Ecology*, 44: 1219-1230. <https://doi.org/10.1111/j.1365-2664.2007.01337.x>

<sup>3</sup> NatureServe Explorer (2026) Black-tailed Prairie Dog (*Cynomys ludovicianus*). Available from: [https://explorer.natureserve.org/Taxon/ELEMENT\\_GLOBAL.2.100941/Cynomys\\_ludovicianus](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.100941/Cynomys_ludovicianus) (last visited March 10, 2026).

**What needs to be changed to address this problem**

There is a need to change the 1984 Plan to reduce recreational shooting of prairie dogs on the Grasslands to contribute to black-footed ferret recovery. See our recommendation on the “Discussion Topic 3” worksheet for an administratively designated management area to support black-footed ferret recovery. Recreational shooting of prairie dogs should be prohibited within this management area. The species evaluation for black-tailed prairie dog also needs to be revised to better characterize the threat and impacts of recreational shooting in the plan area.

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## **Discussion Topic 2: Active Management (Fire and Fuels, Energy and Minerals, Range and Grazing, Air Quality)**

**State a problem and explain why** (*define the problem, why is it a problem, what are you comparing it to and what has changed that desired condition?*)

As we commented on the Draft Assessment, grazing monitoring data should be made publicly available to meaningfully inform the "need to change." The Revised Assessment has not provided this monitoring data and therefore lacks requisite information necessary to inform the "need to change." The plan area is facing more extended periods of severe drought, which warrants a re-evaluation of grazing practices to ensure it occurs within site capability and does not compromise ecological integrity.

### **What needs to be changed to address this problem**

The Assessment does not clarify if ungrazed reference areas exist in the plan area to inform our understanding of the effects of grazing management and to provide relevant baselines for restoration activities. If no such reference areas exist, the "need to change" should acknowledge this as a need, since best practice for ecological restoration is to utilize natural reference areas.<sup>4</sup>

### **State a problem and explain why**

The Assessment appropriately recognizes invasive species as an ecosystem driver and stressor. The plan area has significant issues with invasive species compromising ecosystem integrity, including saltcedar, cheatgrass, and Japanese Brome. The 1984 Plan lacks adequate management direction for addressing the introduction and spread of invasive species.

### **What needs to be changed to address this problem**

The "need to change" should include the need to reduce the spread and extent of invasive species. Due to their pronounced influence on reducing ecosystem integrity, we also recommend invasive species be considered for focal species status in the revised plan.

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<sup>4</sup> See pg. S25 (Standard 1.5) in Gann GD, McDonald T, Walder B, Aronson J, Nelson CR, Jonson J, Hallett JG, Eisenberg C, Guariguata MR, Liu J, Hua F, Echeverría C, Gonzales E, Shaw N, Decler K, Dixon KW (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>.

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### **Discussion Topic 3: Habitat Management (wildlife, plant, soils, habitats for at risk, species of conservation concern and endangered species)**

**State a problem and explain why** (*define the problem, why is it a problem, what are you comparing it to and what has changed that desired condition?*)

The 2012 Planning Rule directs that “the plan must include plan components to maintain or restore ecological integrity,” including plan components to maintain or restore connectivity (36 CFR 219.8). Despite this requirement, the Assessment is extremely deficient in substantive information characterizing the state of connectivity in the plan area. The plan revision team must meaningfully depict the existing connectivity conditions in the plan area to inform the “need to change” and revised plan. We highlight the informative, coarse-filter connectivity modeling for the Lolo National Forest’s Revised Assessment as an example of a useful approach that should be considered for the grasslands. Without knowing the baseline condition of habitat connectivity (or lack thereof) in the plan area, it is impossible to effectively plan to conserve or enhance connectivity. The Assessment qualitatively points to gaps in the existing plan that have resulted in problems with connectivity in the plan area—for example, “The current condition of longitudinal channel connectivity in terms of sediment and debris movement is likely compromised due to the number of road-stream crossings” and that “Physical disturbance and habitat fragmentation is a concern for species on the grasslands.”

#### **What needs to be changed to address this problem**

There is a need for integrated plan components to restore connectivity. There is a need to preserve and restore the functionality of key linkage areas—both within riparian and aquatic habitats, and between terrestrial and aquatic ecosystems. There is a need to apply best available scientific information to identify and better manage key connectivity areas across the plan area.<sup>5</sup> There is also a need to foster improved ecological connectivity across fragmented segments of the Grasslands in a way that increases the functional size of natural ecosystem segments and establishes ecological connections with other high-value habitat areas.

#### **State a problem and explain why**

The Assessment simply characterizes black-footed ferret as “not known to occur” 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. The “need to change” must reflect the agency’s ESA Section 7(a)(1) obligations to proactively contribute to this species’ recovery. The 1984 Plan also references a now outdated 1978 Black-footed Ferret Recovery Plan and requires updating to reflect current science.

#### **What needs to be changed to address this problem**

There is a need to change management to provide for black-footed ferret reintroduction and recovery in the plan area. The revised plan must reflect the U.S. Fish and Wildlife Service’s (2013) *Black-Footed Ferret Recovery Plan*, which emphasizes the importance of improving prairie dog habitat for ferret recovery. An administratively designated management area is needed to support black-footed

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<sup>5</sup> For example, mapping of lesser prairie chicken Focal Areas (CHAT 1) and Connectivity Zones (CHAT 2) has been done in both Colorado and Kansas should be brought to bear in the plan revision process. See Schindler, A. R., Haukos, D. A., Hagen, C. A., & Ross, B. E. (2020). A decision-support tool to prioritize candidate landscapes for lesser prairie-chicken conservation. *Landscape Ecology*, 35(6), 1417-1434 <https://doi.org/10.1007/s10980-020-01024-6>; Colorado Parks and Wildlife (2025) Lesser Prairie Chicken Connectivity Area HPHE1 data, available from: <https://geodata.colorado.gov/datasets/CPW::lesser-prairie-chicken-connectivity-area-hphe1/about>

ferret reintroduction.<sup>6</sup> In this management area, prairie dog populations should be further enhanced by creating habitat conditions conducive to prairie dog expansion, through shooting restrictions, plague protection, and possibly, by prairie dog relocations. As we discussed in our prior comments, there is high potential for the plan area to support reintroduction of ferrets alongside improved management of prairie dogs.

### **State a problem and explain why**

Prairie dog distribution has been reduced by 98% of the historical range.<sup>7</sup> Southeast Colorado is one of the best and highest priority areas for prairie dog restoration in the entire Great Plains. Although prairie dog conservation is often portrayed in conflict with livestock grazing, recent research suggests that, with conservation-focused management, prairie dogs and cattle can coexist with only minor effects of cattle production.<sup>8</sup>

### **What needs to be changed to address this problem**

The “need to change” should recognize the high value of the plan area for prairie dogs and the need to improve management for prairie dog co-existence with grazing. The revised plan needs to incorporate recent BASI on prairie dog-livestock grazing coexistence strategies.

### **State a problem and explain why**

The Sand Sagebrush Ecoregion of southeastern Colorado and southwestern Kansas had the lowest amount of suitable habitat for lesser prairie chicken among the ecoregions, with a finding of a high likelihood of species extirpation risk for the region.<sup>9</sup> As the 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. Following population crashes in 2013, over 400 birds were translocated to the Comanche and Cimarron National Grasslands between 2016 and 2019 to help restore the population and support active breeding leks in the region. However, survival rates and declining lek counts following translocation led researchers to conclude: “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.”<sup>10</sup> Another recent study concludes that observed dispersal of lesser prairie chickens off the National Grasslands and onto CRP lands is likely due to lack of adequate vegetation cover and plant communities: “Analysis of vegetation measurements from the Cimarron and Comanche National Grasslands as well as native rangelands suggests that native grasslands are not currently providing resources for lesser prairie-chicken occupancy, including vegetation cover and appropriate plant communities.”<sup>11</sup>

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<sup>6</sup> Note that the U.S. Fish and Wildlife Service’s (2013) *Recovery Plan for the Black-Footed Ferret* identifies that 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.

<sup>7</sup> 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>.

<sup>8</sup> 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>.

<sup>9</sup> Hagen CA, Garton EO, Beauprez G, Cooper BS, Fricke KA, Simpson B. (2017) Lesser prairie-chicken population forecasts and extinction risks: An evaluation 5 years post-Catastrophic drought. *Wildlife Society Bulletin* 41(4):624–38 <https://doi.org/10.1002/wsb.836>.

<sup>10</sup> Teige, E. C., L. A. Berigan, C. S. H. Aulicky, J. H. Reitz, D. A. Haukos, D. S. Sullins, K. A. Fricke, K. A. Schultz, and L. G. Rossi. 2023. Assessment of lesser prairie-chicken translocation through survival and lek surveys. *Wildlife Society Bulletin* 47:e1493. <https://doi.org/10.1002/wsb.1493>

<sup>11</sup> See pg. 10, Berigan, L. A., Aulicky, C. S., Teige, E. C., Sullins, D. S., Fricke, K. A., Reitz, J. H., ... & Haukos, D. A. (2024). Lesser prairie-chicken dispersal after translocation: Implications for restoration and population connectivity. *Ecology and Evolution*, 14(2), e10871.

## What needs to be changed to address this problem

There is a need to change the 1984 Plan to better contribute to recovery of lesser prairie chicken, including through habitat restoration to support occupancy. Recent science shows a need to increase the representation of nesting habitat on the Grasslands.<sup>12</sup> Management of the Grasslands needs to shift toward a mosaic regime with varied habitat stages and appropriate vegetation composition and structure for lesser prairie-chicken occupancy.<sup>13</sup>

## State a problem and explain why

The 1984 Plan has only three plan components for lesser prairie chicken (LPC):

- *Protect all lesser prairie chicken leks from surface disturbance at all times. Protect nesting habitat from surface disturbance from April 15 to June 30.*
- *Livestock and wild herbivore allowable forage use in lesser prairie chicken habitat will not exceed 40 percent.*
- *Maintain range with a diversity of plant forms, including shrubs. Promote mid-seral to potential natural community plant species.*

These plan components are inadequate and do not reflect BASI for LPC habitat management.

## What needs to be changed to address this problem

Plan components for LPC need to be more specific, quantitative, and in alignment with BASI. For example, the 1984 Plan provides no clear direction for how structurally diverse habitat will be effectively “promoted.” Uniform, widespread livestock grazing is detrimental to LPC if it occurs at an intensity that leaves less than adequate residual cover in the spring; management for livestock grazing needs to include site-specific, adaptive grazing management plans designed to maintain necessary nesting cover for LPC. As another example of the lack of specificity, the 1984 Plan provides no spatial buffer distance to avoid disturbance to leks. The LPC Range-wide Conservation Plan includes many specific provisions for LPC, including “Avoid oil and gas operations within 2.2 miles of active leks and within LPC nesting and early brood-rearing habitat outside the 2.2 mile.”<sup>14</sup> It also uses a different temporal range from the 1984 Plan: “Where oil and gas activities must occur within 2.2 miles of active leks, conduct these activities outside the period between March 15 and June 15.”<sup>15</sup> The Plan needs to be revised to align with current science and best management practices for LPC.<sup>16</sup>

## State a problem and explain why

The Assessment notes there are no longer any active leks within the Comanche Lesser Prairie-Chicken Habitat Zoological Area, despite this area once supporting one of the highest densities of lesser prairie-chickens in the state.

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<sup>12</sup> Berigan, L. A., Aulicky, C. S., Teige, E. C., Sullins, D. S., Haukos, D. A., Fricke, K. A., ... & Ricketts, A. M. (2022). Availability of lesser prairie-chicken nesting habitat impairs restoration success. *Wildlife Society Bulletin*, 46(5), e1379 <https://doi.org/10.1002/wsb.1379>.

<sup>13</sup> Note that these habitat requirements are detailed in: Hagen, C. A., Jamison, B. E., Giesen, K. M., & Riley, T. Z. (2004). Guidelines for managing lesser prairie-chicken populations and their habitats. *Wildlife Society Bulletin*, 32(1), 69-82 [https://doi.org/10.2193/0091-7648\(2004\)32\[69:GFMLPP\]2.0.CO;2](https://doi.org/10.2193/0091-7648(2004)32[69:GFMLPP]2.0.CO;2) and in: Haukos, D. A., & Zavaleta, J. (2016). Habitat. In D. A. Haukos & C. W. Boal (Eds.), *Ecology and management of lesser Prairie-Chickens* (pp. 49–76). CRC Press.

<sup>14</sup> See pg. 6 in Van Pelt, W.E., S. Kyle, J. Pitman, D. Klute, G. Beauprez, D. Schoeling, A. Janus, J. Hauffer (2013). The Lesser Prairie-Chicken Range-wide Conservation Plan. Western Association of Fish and Wildlife Agencies. Cheyenne, Wyoming, pp.367 Available from: <https://wafwa.org/wpdm-package/the-lesser-prairie-chicken-range-wide-conservation-plan/> (last visited March 10, 2026).

<sup>15</sup> *Id.*, pg. 7.

<sup>16</sup> See Van Pelt et al. (2013), *supra*; also see U.S. Fish and Wildlife Service (2022) Species status assessment report for the lesser prairie chicken (*Tympanuchus pallidicinctus*), Version 2.3. 109 pp. + Appendices. Available from: [https://www.fws.gov/sites/default/files/documents/LPC\\_SSA\\_Report\\_v2.3\\_March2022%20%282%29.pdf](https://www.fws.gov/sites/default/files/documents/LPC_SSA_Report_v2.3_March2022%20%282%29.pdf) (last visited March 10, 2026).

### What needs to be changed to address this problem

There is a need for improved management of this Zoological Area to support LPC recovery. The 1984 Plan is too vague on management direction for this area, merely stating that "Special habitat needs of the lesser prairie chicken are to be provided for the affected allotment management plans (AMP)," without ever specifying what these provisions are. The revised plan must provide more specificity to effectively contribute to LPC recovery. We recommend the revised plan include direction for targeted grassland restoration and management in areas of greatest lesser prairie-chicken density for the conservation of populations. Nesting habitat requires dense cover of shrubs and perennial grasses to hide the nest from predators, which can be hampered by overgrazing.<sup>17</sup>

### State a problem and explain why

The 1984 Plan seems to have no management direction for pinyon-juniper woodlands. The at-risk pinyon jay depends on healthy pinyon-juniper woodlands for survival. The species evaluation for pinyon jay identifies a habitat threat of "removal of trees to accomplish other management priorities" while the body of the 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."

### What needs to be changed to address this problem

There is a need for scientifically informed management direction, including an understanding of the pre-European settlement vegetation patterns and historical influences, for pinyon juniper systems. There is a need to provide ecological conditions to support pinyon-juniper obligates in the plan area, including the at-risk pinyon jay. The best available science shows that pinyon-juniper thinning has detrimental effects on pinyon jays.<sup>18</sup>

### State a problem and explain why

The 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." This characterization of "expansion" is premised upon only 35-years of Rangeland Analysis Platform data. This is an inappropriately short timeframe and is inadequate to inform the "need to change." It is essential to understand the historical ecology and land use of the area before presuming that pinyon and juniper are unnaturally "expanding." Pinyon and juniper ebb and flow naturally over time, and long-term trends cannot be drawn from such recent imagery.

### What needs to be changed to address this problem

There is a need for the revised plan to reflect best available science on pinyon-juniper historical stand structure, composition, and disturbance regimes. The Assessment does not provide an adequate baseline to meaningfully inform the "need to change" for pinyon-juniper management. The definition

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<sup>17</sup> Hagen et al. (2004), *supra*.

<sup>18</sup> Johnson, K., N. Petersen, J. Smith, and G. Sadoti. (2018). Piñon-juniper fuels reduction treatment impacts pinyon jay nesting habitat. *Global Ecology and Conservation*: e00487. <https://doi.org/10.1016/j.gecco.2018.e00487>; Magee, P. A., J. D. Coop, and J. S. Ivan. (2019). Thinning alters avian occupancy in piñon-juniper woodlands. *The Condor Ornithological Applications* 121:1-17 <https://doi.org/10.1093/condor/duy008>; Van Laren, N.J., A.P. Monroe, and C.L Aldridge. (2023). A hidden cost of single species management: Habitat-relationships reveal potential negative effects of conifer removal on a non-target species. *Biological Conservation* 280 109959 <https://doi.org/10.1016/j.biocon.2023.109959>; Van Laren, N.J., A.P. Monroe, and C.L Aldridge, (2024). Despite regional variation, *Gymnorhinus cyanocephalus* (Pinyon Jay) densities generally increase with local pinyon–juniper cover and heterogeneous ground cover, *Ornithological Applications*, Volume 126, Issue 4 <https://doi.org/10.1093/ornithapp/duae036>; Zhao, Q., Darr, M., Latif, Q. S., & McLaren, M. (2026). Thinning effects and underlying pathways for birds of conservation concern in New Mexico piñon-juniper woodlands. *Avian Conservation and Ecology*, 21(1), 9 <https://doi.org/10.5751/ACE-03013-210109>.

of NRV in the planning regulations explicitly identifies the need for a “pre-European influenced reference period”.<sup>19</sup> This must be correctly applied in the “need for change” and subsequent plan development.

### **State a problem and explain why**

The plan area supports habitat for several keystone species, including plains bison, American beaver, and black-tailed prairie dogs. These species play a fundamental role in altering the landscape to support native wildlife. The “terrestrial ecosystems” section of the Assessment recognizes that the local extirpation of bison and decline of prairie dogs has “changed the vegetation ecology of the area” and “led to significant long-term changes in species composition in this ecosystem.” Several evaluations for Species of Conservation Concern identify extirpation of bison as ongoing habitat threat.

### **What needs to be changed to address this problem**

The “need to change” and revised plan should recognize the important role keystone species, including plains bison, American beaver, and black-tailed prairie dogs, and the associated ecological communities that depend upon their presence. The revised plan must identify opportunities to improve representation of keystone species on the landscape to improve ecological integrity—including re-establishment of keystone species in historic habitats where they are now absent—and subsequent management for co-existence.

### **State a problem and explain why**

Native pollinator populations are in widespread decline, including the iconic monarch butterfly that occurs in the plan area. The 1984 Plan does not recognize the importance of pollinators, nor does it provide management direction to provide for their ecological condition requirements.

### **What needs to be changed to address this problem**

There is a need to change the plan to include plan content that supports the important role that pollinators play in the ecosystem and to support their ecological condition requirements.

### **State a problem and explain why**

The 2012 Planning Rule requires plans to consider climate change as a system stressor, in development of the plan monitoring program, and in considering the connectivity requirements of species. 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.”<sup>20</sup> Climate change is absent from the 1984 Plan, and the Grasslands are now facing issues with severe and persistent drought.

### **What needs to be changed to address this problem**

The “need to 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.”<sup>21</sup> Climate adaptation strategies for at-risk species and other resources to address climate-driven stressors should be incorporated into the revised plan.

### **State a problem and explain why**

Research Natural Areas (RNAs) are the cornerstone of the sciences of resource management and

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<sup>19</sup> See pg. 14, Forest Service Handbook 1909.12, Zero Code.

<sup>20</sup> 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.

<sup>21</sup> 36 CFR § 219.7

serve as vital “outdoor laboratories” from which to increase our knowledge about ecological dynamics. The Forest Service’s national strategy for the RNAs program directs that these areas be managed in conditions minimally disturbed by human activities. The Assessment identifies a lack of proper management of the Campo RNA, 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.” The Assessment describes that the condition of this RNA has degraded since its establishment and refers to “ongoing disturbances,” including road maintenance and livestock grazing, that have gradually shifted the vegetational community to one more characteristic of sandsage prairie.

### **What needs to be changed to address this problem**

There is a need to better manage RNA(s) to minimize human-caused disturbances and maintain an appropriate reference site for the shortgrass prairie ecosystem type. There is a need to consider additional candidate areas to represent ecosystems not presently protected by RNAs. The Assessment considers possible alternatives to the Campo RNA, including the OU Creek area, but concludes “given widespread evidence of disturbance, neither of those sites met the criteria for RNA designation.” This conclusion is based on a Forest Service report from the 2000s that was not made publicly available. The Forest Service must use best available science when considering additional candidate RNAs. As part of this evaluation, the Forest Service should review Colorado Natural Heritage Program’s (CNHP) Statewide Potential Conservation Area Reports. CNHP assessed the OU Creek site in 2025 and described it as “one of the better examples of shortgrass prairie on the Comanche National Grassland.”<sup>22</sup> Given the scarcity of unaltered shortgrass prairie left in the country, the remaining intact places should be protected from further degradation. It is extremely important to retain and effectively manage an RNA that represents the shortgrass prairie.

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<sup>22</sup> Colorado Natural Heritage Program (2025) Level 4 Potential Conservation Area (PCA) Report for OU Creek (Site code: S.USCOHP\*026). Available from: [https://cnhp.colostate.edu/download/documents/pca/L4\\_PCA-Ou%20Creek\\_9-17-2025.pdf](https://cnhp.colostate.edu/download/documents/pca/L4_PCA-Ou%20Creek_9-17-2025.pdf)

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## **Discussion Topic 4: Water Resources (Water quality, water availability, municipal waters, wetlands, groundwater dependent systems, riparian areas, fisheries)**

**State a problem and explain why** (*define the problem, why is it a problem, what are you comparing it to and what has changed that desired condition?*)

The Assessment acknowledges a marked reduction in the ecological integrity of riparian areas in the plan area, noting: "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."

### **What needs to be changed to address this problem**

It is apparent from the Assessment that the plan area requires aquatic and riparian restoration, and we request this need be explicitly identified in the "need to 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. As one element of that, the revised plan should prohibit harvest, including fuelwood, of native species in riparian management zones.

### **State a problem and explain why**

As discussed in the "Discussion Topic 3" worksheet, we are concerned with the Assessment's lack of information on the state of connectivity in the plan area. Best available science suggests that climate change will worsen connectivity in Great Plains streams, increase fragmentation, and further restrict aquatic species migration and survival.<sup>23</sup> The segment of the Purgatoire River in the plan area likely lacks lateral connectivity, since no reaches currently support permanent floodplain wetlands.<sup>24</sup>

### **What needs to be changed to address this problem**

There is a need to change the 1984 Plan to provide for improved aquatic connectivity, particularly in the context of climate change. The inclusion of a conservation watershed network would serve as one important tool to help facilitate multi-scale connectivity in the plan area, recognizing many species benefit from intact riparian corridors. Another need is to increase and sustain the prevalence of beaver on the landscape, since beaver help distribute water and sediment across valley bottoms and re-extend historic floodplains. In doing so, the revised plan should ensure alignment with Colorado Parks and Wildlife's new *Beaver Conservation and Management Strategy*.<sup>25</sup>

### **State a problem and explain why**

The Assessment notes that "Where livestock are allowed to congregate around water sources, shoreline trampling leads to increased sedimentation rates" and that livestock are impacting water quality of these lentic water bodies.

### **What needs to be changed to address this problem**

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<sup>23</sup> See, for example, pg. 190 in Rice, J. R., Joyce, L. A., Regan, C., Winters, D., & Truex, R. (2018). Climate change vulnerability assessment of aquatic and terrestrial ecosystems in the US Forest Service Rocky Mountain Region. *Gen. Tech. Rep. RMRS-GTR-376*. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. 216 p., 376 <https://doi.org/10.2737/RMRS-GTR-376>.

<sup>24</sup> See pg. 906, 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>

<sup>25</sup> Colorado Beaver Conservation and Management Strategy. 2026. Colorado Parks and Wildlife. Denver, CO, USA. Available from: <https://cpw.widencollective.com/assets/share/asset/oficnkebcs> (last visited March 9, 2026).

There is a need for stronger management direction in the revised plan to effectively limit these adverse impacts of livestock on aquatic habitat and to improve water quality and riparian condition.

**State a problem and explain why**

Several native fish, including the Plains Minnow, have been extirpated from the plan area. The Purgatoire River in the plan area now serves as an important area for the recovery of a recently re-introduced population of this species. The 1984 Plan emphasizes sportfish and does not give adequate emphasis to habitat management for non-game native fish species.

**What needs to be changed to address this problem**

There is a need to provide management direction that supports viability of native non-game fish species, including restoring native habitat to complement Colorado Parks and Wildlife's species reintroduction efforts.