



THE WILDLIFE SOCIETY

Leaders in Wildlife Science, Management and Conservation

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Dr. Pat Deibert, Sage-grouse Conservation Coordinator
Quincy Bahr, Sage-grouse Project Manager
Bureau of Land Management
440 W. 200 S., Suite 500
Salt Lake City, Utah 84101

Re: Bureau of Land Management Draft Resource Management Plan Amendment and Environmental Impact Statement for Greater Sage-Grouse Range-wide Planning (89 Fed. Red. 18963)

Submitted electronically at eplanning.blm.gov

Dear Dr. Deibert and Mr. Bahr,

The Wildlife Society (TWS) is a professional society of over 10,000 wildlife biologists, managers, educators, and students. Along with our undersigned affiliate entities, we appreciate the opportunity to provide comments to the Bureau of Land Management (BLM) on the Draft Resource Management Plan Amendment and Environmental Impact Statement for Greater Sage-Grouse Range-wide Planning (hereafter EIS).

In summary, TWS recommends that BLM:

- **Mitigation, Habitat Management and Sagebrush Restoration:** Keep existing areas of healthy sagebrush intact, apply restoration to grow core habitat, and establish a “net gain” mitigation standard in sagebrush habitat;
- **Energy Development and Mineral Extraction:** Site new or expanded energy development away from intact sagebrush to reduce greater sage-grouse (GRSG; *Centrocercus urophasianus*) avoidance and minimize spread of invasive plants;
- **Livestock Grazing and Drought Response:** Include programmatic direction across Resource Management Plans (RMPs) to incorporate best available science on residual grass height, forage utilization, and/or grazing intensity in allotment management plans and grazing authorizations, and include climate change-sensitive drought contingency plans for livestock grazing in greater sage-grouse habitat;
- **Feral Horse and Burro Management:** Prioritize herd reduction to meet current low Appropriate Management Levels (AMLs), and extend drought planning to management of horses and burros in greater sage-grouse habitat;
- **Wildland Fire Management:** Prioritize wildfire initial attack to combat major loss of sagebrush habitat;
- **Minimizing Threats from Predation:** Explore targeted, collaborative, and science-based solutions for predator control to benefit greater sage-grouse populations;
- **Climate Change:** Integrate climate change adaptation planning throughout all future management actions for greater sage-grouse;
- **Land Use Planning and Plan Implementation:** Prioritize immediate and strategic action to reverse greater sage-grouse and sagebrush decline.

Science-based management solutions are needed to reverse the downward trend of greater sage-grouse populations. We appreciate that this EIS is motivated, in part, by BLM's desire to incorporate new science into its management of GRSG. Our comments are supported by the expertise of our Rangeland Wildlife, Climate Change and Wildlife, and Habitat Restoration Working Groups, as well as members across all 10 states included in the EIS.

MITIGATION, HABITAT MANAGEMENT, AND SAGEBRUSH RESTORATION

The BLM's current proposed minimum standard of no net habitat loss in its preferred alternative is insufficient for reversing trends of sagebrush loss and fragmentation and greater sage-grouse population decline.

Large, connected sagebrush landscapes are required to improve the conservation status of GRSG. Threats including global climate change, invasive species, and wildfires continue to reduce habitat available to GRSG populations. The recently-finalized Public Lands Rule — and the restoration and mitigation leases established within that rulemaking — offers a significant opportunity to enact meaningful and durable conservation of public lands and recover this species. However, references to these leasing options are notably absent from the EIS.

Habitat management and conservation efforts for GRSG should focus on continued mapping of core population areas and identifying those areas with the potential for growth into core areas in the future based on current conditions and possible climatic scenarios.

We encourage BLM to consider all available options for sagebrush restoration and nonnative annual grass control, including but not limited to the use of aerial applications of herbicides, which recent research suggests may be applied successfully at a large scale. The reestablishment of appropriate disturbance regimes and the creation of complexes of vegetation which can outcompete nonnative annual grasses should be a priority across the planning area. These actions should be prioritized on the edges of core habitat areas where they can serve to expand these areas and buffer against habitat loss and fragmentation. There is no single solution to meaningful restoration of sagebrush across the planning area. Restoration of sagebrush is expensive and may require applications of multiple treatment techniques over many years ([Copeland 2024](#)). The degradation and depletion of native understory vegetation communities is a significant challenge to sagebrush restoration, and research on the efficacy of techniques to restore these communities is still needed (Copeland 2024). Even if individual treatments are successful, progress may occur too slowly to result in a meaningful response in GRSG populations in the short-term. We hope BLM will utilize partners and other collaborators to maximize the efficacy of restoration actions, including tribes and their knowledge systems which incorporate Traditional Ecological Knowledge (TEK).

Regardless of selected alternative, we urge the BLM to establish a standard of net gain to mitigate for disturbance activities in sagebrush habitat and prioritize keeping healthy sagebrush habitat intact. We request that a full and transparent hierarchy for mitigation is included in the final implemented alternative.

ENERGY DEVELOPMENT AND MINERAL EXTRACTION

BLM must minimize disturbances associated with energy development and mineral extraction in GRSG habitat and direct development outside of Priority Habitat Management Areas (PHMAs).

Sagebrush Focal Areas (SFAs) were a fundamental component of the 2015 plans to support the U.S. Fish and Wildlife Service’s “not-warranted” listing decision for GRSG. TWS supports the removal of PHMAs from consideration for energy development and mineral extraction within at least one-third of the best remaining sagebrush habitat. Growing energy demands must be balanced with the needs of wildlife populations and their habitats. This recommendation aligns with our broader [policies regarding energy development](#), which include the directive to:

“Urge implementation of practical measures to avoid, reduce, and offset negative effects on wildlife populations and their habitat and connectivity resulting from energy development.”

The following synopsis of the impacts of oil and gas developments on wildlife is taken from the 2012 [TWS Issue Statement on Crude Oil and Gas Development in the Rocky Mountain West](#):

“Crude oil and natural gas developments are widespread throughout North America and continue to expand due to the reliance of our society on these resources. As development continues, it is important to identify the impacts of this industry on various species of wildlife, and recognize that these effects likely are cumulative.”

Anthropogenic disturbance resulting from energy development and mineral extraction reduces GRSG habitat quality and availability, and drives wildlife habitat use across the sagebrush ecosystem. Oil and gas disturbance is tied to reduced sage-grouse chick ([Aldridge and Boyce 2007](#)), brood ([Kirol et al. 2015](#)), and yearling ([Holloran et al. 2010](#)) survival. Disturbance minimization is critical to increasing GRSG numbers and achieving viable GRSG ([Kirol et al. 2020](#)). Disturbance caps of 3 and 5 percent, as seen across the EIS-proposed alternatives, do not eliminate the negative impacts of press disturbance (i.e. sustained disturbance seen from anthropogenic activities associated with energy infrastructure) on nest-survival and brood-rearing habitat avoidance ([Kirol et al. 2020](#)). These impacts must be minimized by reducing disturbance to the greatest extent possible.

Impacts on sagebrush and GRSG by renewable energy sources and corresponding infrastructure must likewise be addressed comprehensively and minimized wherever possible.

We note our [recent comments](#) to the BLM regarding the impacts of utility-scale solar development on public lands, much of which is relevant to the EIS’ planning area. Negative impacts of solar, geothermal, and wind renewable energy sources, as well as the transmission structures required for as-yet unbuilt infrastructure, are increasingly well-documented for GRSG ([LeBeau et al. 2017](#), [Gibson et al. 2018](#), [Coates et al. 2023](#)). We are concerned about the cumulative effects of future renewable energy development in GRSG habitat, and question whether these impacts are adequately assessed in the EIS’ cumulative effects analysis. BLM must comprehensively address these impacts as it works to finalize the EIS.

BLM must control the establishment and expansion of cheatgrass and other invasive plants into sagebrush habitat by prioritizing siting of energy development away from large, intact areas of sagebrush.

Physical disturbance associated with energy development introduces the potential for establishment and expansion of cheatgrass and other invasive plants ([Gelbard and Belnap 2003](#), [Lavin et al. 2013](#)). Construction of infrastructure for energy development and production, as well as mineral exploration and extraction (e.g. access road networks, well pads, transmission lines, pipelines, etc.) results in soil disturbance. Cheatgrass and other invasive plants quickly establish on recently disturbed soils and can rapidly invade adjoining sagebrush plant communities, degrading perennial grass and native forb understories that are critical to GRSG ([Connelly et al. 2000](#)). Because of its flammability, cheatgrass substantially increases wildfire risks to sagebrush habitat. Although some progress is being made with effective chemical control of cheatgrass, it will likely remain logistically impractical and cost-prohibitive on a large and meaningful landscape scale in the short-term. Maintaining healthy sagebrush understories is ultimately the best method to reduce risks associated with cheatgrass invasion and other invasive plants across large landscapes.

To reduce the number of future inroads for cheatgrass (and wildfire) into the sagebrush ecosystem resulting from energy development in GRSG habitat, the BLM should include direction to inventory and map the larger intact sagebrush habitat blocks that are relatively free from, or minimally impacted by cheatgrass, and to site future energy development projects outside and distant from those blocks, recognizing existing lease rights. Best available science supports a 3.1-mile No Surface Occupancy buffer around leks, a standard which should be applied consistently across the planning area ([Knick and Hanser 2011](#), [Knick et al. 2013](#), [Coates et al. 2013](#)).

LIVESTOCK GRAZING AND DROUGHT RESPONSE

Allotment management plans and grazing authorizations within RMPs should have programmatic direction to ensure residual vegetative structure, cover, and species diversity meet the needs of GRSG during all life stages. They should also adopt forage utilization and/or grazing intensity guidelines best suited to sustain GRSG habitat and healthy sagebrush understories, and create GRSG habitat that is more resistant to the invasion of cheatgrass and other invasive plants.

The BLM must incorporate the best available science when planning for spatial and temporal forage utilization and grazing intensity by livestock to reduce or eliminate negative impacts of livestock grazing on GRSG habitat. Importantly, the Rangeland Health and Standards and Guidelines for Grazing Administration on BLM lands were not developed with seasonal GRSG habitat needs in mind. Thus, alternative forage utilization and/or grazing intensity guidelines best suited to achieve habitat goals for GRSG are likely necessary at the allotment scale within the planning area given the variable ecology and habitat needs of the species across its range. Current best available science establishes habitat goals which promote structural heterogeneity and reduce impacts of invasive species like cheatgrass. Relevant guidelines may include, but are

not limited to, minimum forage stubble heights for riparian meadows or residual grass heights for dry upland sites.

The EIS currently acknowledges that taller grass may be associated with reduced GRSG nest predation under some conditions — such as in the context of particular predator communities or in years with particularly tall grass — but grass height does not appear to be a universal indicator of nesting habitat quality for GRSG ([Smith et al. 2018](#)). Indeed, Smith et al. (2018) found mixed support for relationships between grass height, nest site selection, and nest survival in GRSG, confirming that some findings that associations between herbaceous vegetation structure and nest success are frequently byproducts of temporally biased sampling rather than indicative of effect of concealing cover on detectability by predators ([Gibson et al. 2015](#), [McConnell et al., 2017](#)). There is a current lack of information on the relationship between residual grass height and GRSG nest density which merits further investigation. Thus, BLM should focus on maintaining native vegetation structure, cover, and species diversity across the planning area via the implementation of appropriate forage utilization and/or grazing intensity guidelines at the allotment scale.

TWS supports the inclusion of required design features, where appropriate, for livestock water developments to reduce mosquito populations and resulting risks of West Nile for GRSG. We also support required design features and improved siting of livestock fencing to reduce GRSG mortality.

TWS commends BLM and cooperating agencies for including the guidance listed in Appendix 15 that encourages BLM to coordinate with other partner agencies and organizations, interested grazing permittees, and others to develop and implement integrated livestock grazing strategies designed to benefit GRSG across adjoining landownerships and larger landscapes. Partnerships like the *Sage Grouse Initiative*, part of the Natural Resource Conservation Service's *Working Lands for Wildlife* private-lands incentive program, increase the probability of successful conservation outcomes and to overcome the vast challenges facing GRSG and the sagebrush ecosystem.

BLM should expand Section 15.1.4 (Appendix 15) in the final selected alternative to include a provision that each RMP include a drought contingency plan for livestock grazing in GRSG habitat.

We support the BLM and cooperating agencies in addressing impacts of livestock grazing during drought on GRSG and the broader sagebrush ecosystem in Section 15.1.4 of Appendix 15 (*Livestock Grazing Management Best Management Practices and Design Features and Supplemental Information*). Drought contingency planning for livestock grazing is a basic and logical step forward as a climate adaptation strategy for management of federal rangelands, and we encourage the BLM to explicitly address climate change impacts in plans for livestock grazing and drought. Riparian, wet meadow, and other mesic habitats within the sagebrush ecosystem play a critical role in GRSG reproduction and recruitment ([Donnelly et al. 2018](#), [Lundbrad et al. 2022](#)) and are especially vulnerable to severe degradation during drought from excessive grazing and trampling ([Bureau of Land Management 2014](#), [Oles et al. 2017](#), [Burdick et](#)

[al. 2021](#)). Damaged and degraded sites are also more vulnerable to cheatgrass invasion and other invasive plants ([King et al. 2019](#), [Reisner et al. 2013](#)).

We are concerned that Section 15.1.4 currently refers to drought management planning, but does not specify a written plan. The National Drought Mitigation Center emphasizes the importance and value of having a [written drought management plan](#). Guidance calling for a drought plan is already listed in Appendix 2 of the DEIS (Vol. 3) for the states of Colorado (page 2-CO-13) and Wyoming (page 2-WY-44). Adding similar guidance to Section 15.1.4 will expand this direction range-wide for GRSG habitat and help ensure that drought planning is given thorough consideration and documentation in each RMP. Drought contingency plans, complete with local triggers (precipitation, soil moisture, etc.), trigger dates and drought response strategies, could be included in each RMP as an appendix. TWS recognizes the complexities and hardships that drought brings to grazing permittees, given issues associated with market timing, relocating livestock, or finding alternative forage sources. [Kachergis et al. \(2014\)](#) discuss strategies used by Wyoming ranchers to build management flexibility into their livestock operations to better facilitate timely grazing adjustments at onset of drought.

FERAL HORSE AND BURRO MANAGEMENT

Reducing feral horse and burro herd sizes to meet current low AMLs must be a priority.

Horses and burros are not wildlife. The Free-Roaming Wild Horses and Burros Act provides for a limited number of “wild” horses and burros in designated Herd Management Areas (HMAs) managed by BLM and the U.S. Forest Service. The number of horses and burros across the planning area is estimated to be approximately three times greater than the approved, high AMLs. The continued presence of excessive numbers of horses and burros harms native wildlife like GRSG by, among other things, reducing vegetative cover and increasing bare ground.

Grazing and trampling by horses and burros amplifies damage to sagebrush caused by livestock ([Coates et al. 2021](#), [Beever and Aldredge 2011](#), [Burdick et al. 2021](#)). Restoration of sagebrush habitat is also impeded by the presence excessive numbers of horses and burros. If these numbers continue to grow at current rates, GRSG populations within horse-occupied areas may be reduced by >70% in the next 10 years (Coates et al. 2021). Reducing horse and burro numbers to low AMLs in each HMA must be a priority regardless of the final selected EIS alternative. TWS also urges BLM to [take decisive action to remove horses and burros from all public lands where they are not legally permitted under federal law](#).

BLM should extend drought management planning to horses and burros in GRSG habitat.

The current [TWS Issue Statement on Feral Horses and Burros in North America](#) supports reductions in feral horses and burros under certain conditions:

“Recommend that BLM and other responsible agencies direct adequate attention and resources toward accurately and precisely identifying the impacts of feral horses and burros on wildlife populations, habitats, and other natural resources managed for public benefit by 1) developing and implementing appropriate survey and removal methodology

2) *conducting surveys and removals in a timely manner to minimize impacts on natural resources that can result from the overpopulation of feral horses and burros and 3) identifying and mitigating impacts on perennial and ephemeral riparian and wetland habitats, upland habitats, and threatened, endangered, and special status species of wildlife...*”

This recommendation aligns with our comments pertaining to drought and climate change. We recommend BLM develop drought contingency plans with local triggers for horses, similar to our recommendations for livestock above. Unplanned AML reductions in response to drought must be timely in order to have the desired effect. An [environmental assessment of drought management planning for feral horses and burros](#) prepared in 2014 by the Elko BLM district in northern Nevada provides an example of drought planning for feral horses and burros.

WILDLAND FIRE MANAGEMENT

BLM should prioritize, wherever possible, wildfire initial attack as a strategy to combat loss of sagebrush habitat across the planning area.

Altered fire regimes and the resulting invasion of non-native grasses continue to be a major threat to sagebrush habitat ([Crist et al. 2023](#)). Acres of sagebrush lost to wildfire require costly restoration which may take decades to return to full health, if restoration is in fact possible. Initial attack may be more resource-intensive during early implementation, but will ultimately be more cost effective and prevent the loss of irreplaceable sagebrush habitat.

MINIMIZING THREATS FROM PREDATION

Predator control and minimization measures should be a targeted component of EIS implementation.

The EIS highlights recent literature demonstrating the impacts of predators, and especially of common ravens, on GRSG nest success. We encourage the BLM to work with state wildlife agencies, tribes, and other partners to apply predator control methods supported by best available science to minimize these impacts in targeted areas where they are most needed. Management of common ravens in particular within the bounds of the Migratory Bird Treaty Act requires a commitment to coordination between federal, state, local, and tribal agencies, and we support collaborative efforts to manage predators across the planning area for the benefit of GRSG populations.

CLIMATE CHANGE

Management actions resulting from the implementation of the EIS must include climate change adaptation planning.

Global climate change is already having profound impacts on sagebrush habitat. It is a pervasive threat which amplifies the challenges and negative impacts associated with all of the management considerations detailed in these comments. TWS continues to [advocate](#)

for conservation planning that not only recognizes the threat of global climate change, but incorporates management actions that align with the Resist-Accept-Direct (RAD) framework ([Lynch et al. 2021, 2022](#); [Thompson et al. 2020](#)). The BLM should apply RAD and similar decision-making frameworks to address possible climate change scenarios as they relate to management for GRSG. This includes designing and implementing monitoring protocols that can detect biologically meaningful changes in GRSG populations and habitat conditions. We encourage the use of the [USGS Climate Tool Box](#) and other climate adaptation tools to support the implementation of the EIS.

LAND USE PLANNING AND PLAN IMPLEMENTATION

BLM must enact strategic protections across public lands to ensure durable conservation of sagebrush habitat.

Alternative 3 of the EIS maximizes GRSG habitat conservation and allows for the most significant opportunities to restore degraded sagebrush habitat. However, we suggest there may be additional need to designate Areas of Critical Environmental Concern (ACECs) within PHMAs to enact durable conservation gains for GRSG. PHMAs should be located strategically to protect core occupied habitat and high-quality sagebrush that can support GRSG population growth. TWS encourages BLM to evaluate all proposed new ACECs for GRSG conservation priority and, at a minimum, include those ACECs that overlap SFAs identified in the 2015 RMPA amendments.

In 2017, TWS and 23 other organizations submitted a [letter](#) to the Department of the Interior recommending against moving away from approved RMP amendments finalized in 2015. Those amendments and corresponding management planning were the result of extensive collaboration and efforts to enact landscape-level restoration of GRSG populations and sagebrush habitat. We remain supportive of those amendments – included in the EIS under Alternative 1 – with modifications to reflect new science, and urge the BLM to honor that collaborative effort by focusing on on-the-ground management for GRSG.

A summary of current plan implementation accomplishments by the BLM and cooperating entities since the approval of RMP amendments in 2015 would have better-facilitated the evaluation of proposed alternatives in the current draft EIS.

This information would help reviewers better understand the BLM's rate and effectiveness in implementing on-the-ground GRSG conservation measures, and would facilitate a better understanding of what alternative has the highest probability of achieving, in a reasonable timeframe, a successful conservation outcome to support the continuation of the 2015 U.S. Fish and Wildlife "not warranted" listing decision.

CONCLUSION

Rapid action is needed to reverse the continuing downward trend in both sage-grouse populations and sagebrush habitat.

Given documented loss of core and general habitat since the 2015 RMP Amendments ([Buchholtz et al. 2023](#), [Doherty et al. 2022](#); Holdrege et al. *in review*, Mozelewski et al. *in review*, Theobald et al. *in review*), coupled with the continued long-term trend of ~3% annual decline in estimated apparent abundance of sage-grouse males ([Garton et al. 2011, 2015](#); [Coates et al. 2021, 2023](#); [Prochazka et al. 2023](#)), we strongly recommend that the BLM not weaken these RMPs any further and increase restoration efforts to regain lost habitat. To quote Dr. Jack Connelly, a leader in sage-grouse research and conservation:

“Platitudes and planning will not save sage-grouse. Strong leadership and a commitment to science-driven solutions are necessary to conserve one of North America’s most iconic species...” (Connelly 2024).

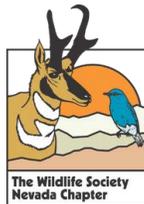
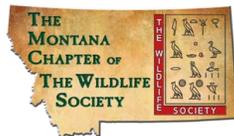
We thank the BLM for its consideration of these comments, which promote science-based actions intended to result in conservation gains for this iconic species. We also recognize that to implement these actions — as well as other GRSR recovery tools like the Sage-Grouse Habitat Assessment Framework, adaptive management strategies, and compliance monitoring for projects impacting sagebrush habitat — requires significant resources and staff capacity. TWS remains an enduring supporter of increased congressional funding for the BLM’s Wildlife Habitat Management programs, and an advocate for the work of the wildlife professionals tasked with implementing these programs. Any questions on these comments can be directed to TWS policy staff at policy@wildlife.org.

Sincerely,



Certified Wildlife Biologist ®
President | The Wildlife Society

Chapters of The Wildlife Society
Montana
Nevada
South Dakota



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