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Working to protect and restore Western Watersheds and Wildlife

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NEPA Coordinator

Bureau of Land Management

Northwest Colorado District

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Sent via email (blm_co_nw_sage_grouse@blm.gov) and U.S.P.S. certified mail (CD enclosed)

Re: Comments on the Northwest Colorado (“NWCO”) Greater Sage-grouse Draft Land Use Plan Amendment and Environmental Impact Statement (“DLUPA/DEIS”)

Dear BLM:

On behalf of Western Watersheds Project, please accept the following comments on the Northwest Colorado (“NWCO”) Greater Sage-grouse Draft Land Use Plan Amendment and Environmental Impact Statement (“DLUPA/DEIS”).

I. INTRODUCTION

Western Watersheds Project (“WWP”) works to protect and conserve the public lands, wildlife and natural resources of the American West through education, public policy initiatives, and litigation. WWP and its staff and members use and enjoy the public lands, including the lands at issue here, and its wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes. WWP has been actively involved in sage-grouse management in the west for more than a decade and has consistently engaged the NWCO District office on its administration of livestock grazing.

If approved, this Land Use Plan Amendment (“LUPA”) would guide the management of Greater sage-grouse habitat on public lands administered by the BLM and U.S. Forest Service (“USFS”) on 8.6 million acres in the NWCO planning area. This LUPA is necessary in order for the agency to fully address the "warranted" listing of Greater sage-grouse under the Endangered Species Act (“ESA”). In its 2010 listing determination, the U.S. Fish and Wildlife Service has determined that factors A and D under Section 4(a)(1) of the ESA apply to greater sage grouse. Factor A is "the present or threatened destruction, modification, or curtailment of the habitat or range of the greater sage grouse. Factor D is "the inadequacy of existing regulatory mechanisms". These two factors were determined to pose "a significant threat" to the greater

sage grouse “now and in the foreseeable future.”¹ For this reason, BLM is amending and developing land use plans across the west to address these deficiencies and seek to avert full protection for the species. DLUPA/DEIS at xxi.

Unfortunately, the DLUPA/DEIS fails to meet this overarching objective. The proposed DLUPA/DEIS fails to significantly address the “present and threatened destruction, modification, or curtailment of the habitat or range of the greater sage-grouse.” In addition, DLUPA/DEIS fails to implement the “regulatory mechanisms” that would be necessary for the recovery of the species. Regulatory mechanisms under the ESA must be mandatory and enforceable. The vast majority of the proposed management actions of the NWCO DLUPA/DEIS do not address either of these requirements. In particular, the DLUPA/DEIS’s analysis of livestock grazing falls far short of the mark, for the reasons addressed in detail below.

II. STATUTORY REQUIREMENTS FOR THE DLUPA/DEIS

The BLM is bound by law to provide a full and fair environmental analysis of the proposed actions, and those actions must comply with federal regulations and agency direction, including but not limited to the requirements outlined here:

A. National Environmental Policy Act (“NEPA”)

The National Environmental Policy Act (“NEPA”) requires that the BLM consider a reasonable range of alternatives. See 42 U.S.C. § 4332(2)(C)(iii). Considering the presence of endangered, special status, and sensitive species in the planning area, a no grazing alternative and 50% reduction from actual use, in permitted grazing should be included within the reasonable range of alternatives for the DLUPA/DEIS.

The NEPA requires that environmental information be available to the public before decisions are made and that information is of high quality, and that the scientific analysis is accurate. 40 C.F.R. §1500.1(b). Additionally, the NEPA requires that BLM identify the methodology and scientific sources relied upon for the agency’s conclusions. 40 C.F.R. §1502.24. The Administrative Procedures Act prohibits decisions that are arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. §706(2)(A).

NEPA documents must use “plain language,” “provide full and fair discussion of significant environmental impacts,” and be “clear, and to the point.” 40 C.F.R. 1502.1, 1502.8. If the public cannot understand what the agency is proposing to do, the document has failed this basic requirement.

NEPA requires agencies to disclose all significant impacts from projects, whether they are “direct” or “indirect.” 40 C.F.R. § 1502.16. “Indirect” impacts include any “reasonably foreseeable” impacts. 40 C.F.R. §§ 1508.8(b), 1502.22.

¹ 75 Federal Register 13910 March 23rd, 2010.

NEPA requires the agency to consider the effects of induced changes “in the pattern of land use... and related effects on air and water and other natural systems, including ecosystems.” 40 C.F.R. § 1508.7(b), 1502.16.

The purpose of NEPA is to require disclosure of relevant environmental issues that were given a "hard look" by the agency, and thereby to enable informed public comment on proposed action and any alternatives that might be pursued with less environmental harm.

B. Federal Lands Policy and Management Act (“FLPMA”)

The Federal Lands Policy and Management Act of 1976 states that public lands should be managed, “in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values...” *See* 43 U.S.C. 1701 § 102. It also directs the BLM to, “mak[e] the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources.” A full exploration of the judiciousness of allowing ongoing livestock grazing on these public lands should be included in the analysis.

FLPMA requires the BLM “take action necessary to prevent unnecessary or undue degradation of the lands[.]” 43 U.S.C. § 1732 (b). FLMPA also requires that the BLM manage lands for multiple uses, “without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.” 43 U.S.C. § 1702(c).

BLM is also required by FLPMA to “develop, maintain, and when appropriate, revise [RMPs.]” 43 U.S.C. § 1712(a). Among other requirements, the RMPs are to (1) “use and observe the principles of multiple use and sustained yield”; (2) “use a systematic interdisciplinary approach”; (3) “give priority to the designation and protection of areas of critical environmental concern”; and (4) “weigh long-term benefits to the public against short-term benefits.” 43 U.S.C. §1712(c).

To ensure that BLM has adequate information to complete this task, FLPMA also directs the Secretary to “prepare and maintain on a continuing basis an inventory of public lands and their resources and other values... This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values.” *Id.* § 1711(a). BLM is obligated to “arrange for resource, environmental, social, economic, and institutional data and information to be collected, or assembled if already available.” 43 C.F.R. § 1610.4-3. An RMP/EIS is the ideal location for summarizing this inventory and analyzing the impacts of the proposed land uses.

BLM’s primary direction document for RMP planning is H-1601-1. This handbook requires that:

Land use plan decisions for public lands fall into two categories: desired outcomes (goals and objectives) and allowable (including restricted or prohibited) uses and actions anticipated to achieve desired outcomes.²

The Handbook provides direction on Objectives:

Objectives identify specific desired outcomes for resources. Objectives are usually quantifiable and measurable and may have established timeframes for achievement (as appropriate). A sample objective is: “Manage vegetative communities on the upland portion of the Clear Creek Watershed to achieve, by 2020, an average 30 to 40 percent canopy cover of sagebrush to sustain sagebrush-obligate species.”³

H-1601-1 further states:

After establishing desired outcomes, the BLM identifies allowable uses (land use allocations) and management actions for different alternatives that are anticipated to achieve the goals and objectives.

a. Allowable uses. Land use plans must identify uses, or allocations, that are allowable, restricted, or prohibited on the public lands and mineral estate. These allocations identify surface lands and/or subsurface mineral interests where uses are allowed, including any restrictions that may be needed to meet goals and objectives. Land use plans also identify lands where specific uses are excluded to protect resource values.⁴

The DEIS states that the proposed alternative complies with the planning manual H-1601-1 yet the proposed action fails to implement Appendix C of this handbook. Appendix C lays out the resource specific details which the RMP must provide. We wish to draw your attention specifically to Section I Subsections B, C, D and E as well as Section II Subsection B. In addition, we provide, as an attachment, comments to the Rock Springs RMP scoping process which discusses in more detail the requirements of this manual and other applicable manuals in regards to RMP planning requirements in further detail.

C. Water Quality Standards

The BLM is required to meet the water quality standards of every state in which it administers public lands. Livestock grazing in and near streams results in increased *E. coli* and fecal coliform bacteria. The Final EIS and RMP must explain how the plan complies with Colorado surface water quality standards for *E. coli* and fecal coliform bacteria.

D. National Historic Preservation Act

Under the National Historic Preservation Act (NHPA), a federal agency must make a reasonable and good faith effort to identify historic properties, 36 C.F.R. § 800.4(b); determine

² BLM Land Use Planning Handbook H-1601-1 at 12.

³ Id.

⁴ Id. at 13.

whether identified properties are eligible for listing on the National Register based on criteria in 36 C.F.R. § 60.4; assess the effects of the undertaking on any eligible historic properties found, 36 C.F.R. §§ 800.4(c), 800.5, 800.9(a); determine whether the effect will be adverse, 36 C.F.R. §§ 800.5(c), 800.9(b); and avoid or mitigate any adverse effects, 36 C.F.R. §§ 800.8[c], 800.9(c). The [federal agency] must confer with the State Historic Preservation Officer (“SHPO”) and seek the approval of the Advisory Council on Historic Preservation (“Council”).

The BLM must consider the impacts of proposed livestock grazing throughout the planning area on the important cultural and historic resources found on these public lands. Trampling, displacement, desecration, and degradation are all possible impacts of livestock grazing; the RMP/EIS must provide specific tolerance parameters, monitoring, and other requirements to ensure for the protection and preservation of these areas.

E. Other Policy and Guidance, specific to Greater sage-grouse management

In 2004, BLM published its National Sage-Grouse Habitat Conservation Strategy (“Strategy”).⁵ Among other commitments, this policy binds the BLM to “use the best available science and other relevant information to develop conservation efforts for sage-grouse and sagebrush habitats.”⁶ WWP has referenced a number of scientific studies, compiled in the Literature Cited section of these comments, which BLM must read and consider in order to meet its obligation to “use the best available science” including publications specifically mandated under the Strategy.

According to BLM IM 2012-44, “The conservation measures developed by the National Technical Team and contained in Attachment 1 must be considered and analyzed, as appropriate, through the land use planning process by all BLM State and Field Offices that contain occupied Greater Sage-Grouse habitat.”

The BLM National Sage-grouse Habitat Conservation Strategy is entitled “Guidance for the Management of Sagebrush Plant Communities for Sage-Grouse Conservation,” and hence is directly applicable to the Bighorn Basin planning area. The Strategy includes a host of enforceable limitations and requirements on livestock grazing to protect sagebrush habitats, and to maintain, enhance or restore sagebrush habitat, including:

- Avoid constructing livestock management facilities (i.e., corrals, tanks, troughs, pipelines, fences, etc.) next to leks;
- Design and locate the placement of fences for livestock . . . so as not to disturb important sage-grouse habitat areas;
- Consider seasonal closures to protect priority sage-grouse habitat if other alternatives will not achieve desired objectives;
- Use grazing practices that promote the growth and persistence of native shrubs, grasses and forbs needed by sage-grouse for seasonal food and concealment. . .

⁵ Available online at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/fish__wildlife_and.Par.9151.File.dat/Sage-Grouse_Strategy.pdf; site last visited 3/13/13.

⁶ Id. at 7.

- Vegetation structure (height) should be managed so as to provide adequate cover for sage-grouse during the nesting period;
- Maintain seeps, springs, wet meadows, and riparian vegetation in a functional and diverse condition for young sage-grouse;
 - Maintain sagebrush and understory diversity . . . adjacent to crucial season sage-grouse habitat unless removal is necessary to achieve sage-grouse habitat management objectives;
 - Where other grazing management options are not achieving, or cannot achieve, the desired objectives, a short-term option may be livestock exclusion.⁷

These measures must be directly incorporated in the current plan for the DLUPA/DEIS to comply with the agency's own regulation.

The U.S Fish and Wildlife Service will consider the Policy for Evaluating Conservation Efforts ("PECE Policy") as the yardstick to determine the adequacy of existing regulatory mechanisms when considering whether listing is warranted. Implementation must be certain and the proposed plan in question must be known to be effective. According to the PECE policy, "We will make this evaluation based on the certainty of implementing the conservation effort and the certainty that the effort will be effective."⁸ The BLM must incorporate this certainty into the current planning effort.

F. Special Status Species management

BLM's Special Status Species management is governed by Instruction Memorandum (IM) 97-118. It requires that actions authorized, funded, or carried out by the BLM do not contribute to the need for any species to become listed as a candidate, or for any candidate species to become listed as threatened or endangered. BLM's actions until now have definitely contributed to the need for listing of sage grouse under the ESA.

Identify strategies and decisions to conserve and recover special status species. Given the legal mandate to conserve threatened or endangered species and BLM's policy to conserve all Special Status Species, land use planning strategies and decisions should result in a reasonable conservation strategy for these species. Land use plan decisions should be clear and sufficiently detailed to enhance habitat or prevent avoidable loss of habitat pending the development and implementation of implementation-level plans. This may include identifying stipulations or criteria that would be applied to implementation actions.⁹

BLM Manual 6840 Special Status Species Management provides further policy and guidance for the conservation of special status species, and the ecosystems upon which they depend. It defines special status species as "species which are proposed for listing, officially listed as threatened or endangered, or are candidates for listing as threatened or endangered

⁷ BLM National Sage-grouse Habitat Conservation Strategy is entitled "Guidance for the Management of Sagebrush Plant Communities for Sage-Grouse Conservation," Section 1.4.1, 2004.

⁸ 68 Fed. Reg 15113.

⁹ BLM Land Use Planning Handbook H-1601-1, Appendix C at 5.

under the provisions of the Endangered Species Act (ESA); those listed by a State in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by each State Director as sensitive. The objectives of the special status species policy are:

- A. To conserve listed species and the ecosystems on which they depend.
- B. To ensure that actions requiring authorization or approval by the Bureau of Land Management (BLM or Bureau) are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species, either under provisions of the ESA or other provisions of this policy.¹⁰

The Greater sage-grouse is listed as a BLM Sensitive Species and is also a Candidate Species under the Endangered Species Act. BLM has the following responsibility with regard to sage grouse: “As a federal agency, the BLM is obligated to develop and implement a strategy to avoid having its management activities contribute to the need to list greater sage-grouse under the ESA.”¹¹ According to BLM:

Adverse impacts to special status species and their habitats are usually of more concern than impacts to general wildlife because of the limited nature of their numbers, habitat, or unique threats. Special status wildlife species mortality, habitat loss, fragmentation, or modification, and/or population declines can contribute to BLM sensitive species becoming listed under the ESA, and ESA listed species becoming more imperiled.¹²

Nothing provided in the EIS would support a conclusion that BLM actions following RMP amendment implementation will not “contribute” to further declines in Greater sage-grouse habitat conditions and populations.

WWP is concerned that no alternative will uphold BLM’s obligation to manage Sensitive Species to “minimize or eliminate threats,” and not “contribute” to the need for listing, either within or outside of sage-grouse Core Area habitats. As detailed elsewhere in these comments, mitigation measures applied under the proposed alternatives will inevitably lead to serious impacts to sage grouse populations within Core Areas and elsewhere and, for the most part are unenforceable, and therefore not “adequate regulatory mechanisms”. This result represents an unnecessary and undue degradation of key Greater sage-grouse habitats.

According to BLM policy, “It is in the interest of the BLM to undertake conservation actions for such species before listing is warranted.”¹³ The sage-grouse is already nearing listing as an Endangered or Threatened Species, as shown by the “warranted but precluded” finding of the USFWS. The USFWS sage grouse “not warranted” findings were litigated and overturned by courts in the past, and there is every expectation that a “not warranted” finding would similarly be litigated if one is issued in 2015. Failure to implement the strongest conservation measures feasible needlessly exposes the sage-grouse to threats to its viability, even within Core Areas,

¹⁰ See BLM Manual 6840.

¹¹ Lander RMP FEIS at 1282.

¹² Lander RMP FEIS at 925.

¹³ BLM Manual 6840.2.

which would strengthen the likelihood that the USFWS deems BLM conservation measures inadequate at the administrative stage or that a court would subsequently rule them inadequate and use this as the basis for the overturn or remand of a “not warranted” finding by the USFWS.

For Sensitive Species, “On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat,” by implementing a number of measures.¹⁴ These include: “Prioritizing Bureau sensitive species and their habitats for conservation action based on considerations such as human and financial resource availability, immediacy of threats, and relationship to other BLM priority programs and activities.”¹⁵ For BLM Sensitive Species, BLM Field Managers are charged with furthering the conservation and/or recovery of sensitive species, which is defined “as applied to Bureau sensitive species, the use of programs, plans, and management practices to reduce or eliminate threats affecting the status of the species, or improve the condition of the species’ habitat on BLM-administered lands.”¹⁶

The Objectives of BLM’s sensitive species policy includes the following: “To initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA.”¹⁷ Under this policy, District Managers and Field Managers are tasked with “Ensuring that land use and implementation plans fully address appropriate conservation of BLM special status species.”¹⁸

This is defined as follows: “as applied to Bureau sensitive species, the use of programs, plans, and management practices to reduce or eliminate threats affecting the status of the species, or improve the condition of the species’ habitat on BLM-administered lands.”¹⁹ Importantly,

When appropriate, land use plans shall be sufficiently detailed to identify and resolve significant land use conflicts with Bureau sensitive species without deferring conflict resolution to implementation-level planning. Implementation-level planning should consider all site-specific methods and procedures needed to bring species and their habitats to the condition under which management under the Bureau sensitive species policies would no longer be necessary.²⁰

Under this policy, “Bureau sensitive species will be managed consistent with species and habitat management objectives in land use and implementation plans to promote their conservation and to minimize the likelihood and need for listing under the ESA.”²¹

In implementing this policy, “the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the

¹⁴ BLM Manual 6840.2(C).

¹⁵ BLM Manual 6840.2(C)(5).

¹⁶ BLM Manual 6840, Glossary.

¹⁷ BLM Manual 6840.02.

¹⁸ BLM Manual 6840.04(E)(6).

¹⁹ BLM Manual 6840, Glossary 2.

²⁰ BLM Handbook 6840.2(B).

²¹ BLM Manual 6840.06.

condition of the species habitat.”²²

G. Climate Change

As required by Secretary of the Interior Order No. 3289, the BLM must “consider and analyze potential climate change impacts when undertaking long-range planning exercises.”²³ Certainly an RMP and EIS constitutes such a long-range planning exercise. This entails accounting for the impacts of livestock grazing either as both emitters of greenhouse gases (GHGs) and for the reduced ability of the landscape as a carbon sink when vegetation is removed as forage, i.e. “carbon pools” that are extracted and turned into methane in livestock intestines.

In *Massachusetts v. EPA*, the Supreme Court emphasized the importance of incremental regulatory steps to address climate change:

Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop [internal citation omitted]. They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed [internal citation omitted].²⁴

Just as reducing automobile emissions represents an incremental step in addressing climate change, so does reducing emissions and other impacts of livestock grazing. A recent study recommends removing or reducing livestock grazing across large areas of public lands in order to eliminate this long-term stressor and make the lands less susceptible to the effects of climate change.²⁵ The DLUPA/DEIS is required to consider livestock grazing in this context.

III. COMMENTS ON THE NWCO DLUPA/DEIS

A. Impacts of livestock grazing in the project area

First and foremost, BLM’s DLUPA/DEIS has failed to recognize the serious and detrimental impact of livestock grazing on Greater sage-grouse habitat in the planning area. A good example of the level of recognition that is necessary can be found in the BLM’s HiLine DRMP, released in Montana in June 2013. This document recognizes the impact of livestock grazing on naturalness, stating:

Livestock grazing has the potential to impact naturalness, the undeveloped character, and to create conflict with recreation users. Manipulation of vegetation, alteration of soils, and the presence of fecal matter would create unnatural conditions and would impact opportunities for solitude, particularly in areas where livestock congregate. Range facilities, such as fences, water troughs, and tanks have the potential to degrade wilderness characteristics by creating new developments, disturbing visual resources,

²² BLM Manual 6840.2(C).

²³ Secretary of the Interior Order No. 3289 (Sep. 14, 2009).

²⁴ *Massachusetts v. EPA*, 127 S. Ct. 1438, 1457 (2007).

²⁵ Beschta, R.L., D.L. Donahue, D.A. DellaSala, J. Rhodes, J. Karr, M.H. O’Brien, T.L. Fleischner, and C. Deacon Williams. 2012. Adapting to climate change on western public lands: Addressing the ecological effects of domestic, wild, and feral ungulates. *Environmental Management*.

and influencing wildlife migration, reproduction, and mortality (e.g., sage-grouse/fence collisions).²⁶

Here, the DLUPA/DEIS fails to recognize the basic realities that livestock grazing is ecologically deleterious, economically inefficient, and socially unnecessary. Instead, the preferred alternative maintains the status quo grazing management throughout the project area without a “hard look” at the reality of grazing impacts, including impacts to vegetation communities, soil resources, and wildlife habitats.

1. Invasive species

Livestock grazing is a well-known vector of invasive, non-native, or noxious species colonization on public lands. Livestock promote the spread and colonization of alien plants, which can increase fire frequencies.²⁷ Disturbance is a reliable indicator of alien dominance in vegetation composition, and livestock grazing is a significant disturbance to desert ecosystems.²⁸

Grazing across many states has led to the invasion of cheatgrass, a highly flammable noxious weed that accelerates the fire cycle to less than five years destroying the sagebrush upon which sage-grouse rely for food and cover. Approximately 36 percent of the Greater sage-grouse range is invaded by cheatgrass.²⁹ Because sagebrush requires at least 15 years (and up to 50) to reoccupy burned sites, restoring invaded areas is a difficult and slow process. Preventing further spread into intact sagebrush should be prioritized.

Biological invasions, especially invasion by exotic annual grasses such as cheatgrass, are consistently cited as among the most important challenges to maintenance of healthy sagebrush communities.³⁰ Estimates of the rapid spread of weeds in the West include 2,300 acres per day on BLM lands and 4,600 acres per day on all western public lands.³¹ Clearly, the BLM needs to

²⁶ HiLine Draft Resource Management Plan and Environmental Impact Statement at 671.

²⁷ Belsky, J., and J.L. Gelbard. 2000. Livestock Grazing and Weed Invasions in the Arid West. Oregon National Desert Association, Bend, OR. 1-31.; Billings, W. D. 1990. *Bromus tectorum*, a biotic cause of ecosystem impoverishment in the Great Basin. Pages 301-322 in G. M. Woodwell, editor. The earth in transition: patterns and processes of biotic impoverishment. Cambridge University Press New York; Rosentreter, R. 1994. Displacement of rare plants by exotic grasses. Pp. 170-175 in Monsen, S. B. and S. G. Kitchen (compilers), Proceedings – Ecology and Management of Annual Rangelands. General Technical Report INT-GTR-313. US Department of Agriculture, Forest Services, Intermountain Research Station, Ogden, UT.; Billings, W. D. 1994. Ecological impacts of cheatgrass and resultant fire on ecosystems in the western Great Basin. Pp. 170-175 in Monsen, S. B. and S. G. Kitchen (compilers), Proceedings – Ecology and Management of Annual Rangelands. General Technical Report INT-GTR-313. US Department of Agriculture, Forest Services, Intermountain Research Station, Ogden, UT;

²⁸ Brooks, M.L. and Berry, K.H. 2006. Dominance and environmental correlates of alien annual plants in the Mojave Desert, USA. *Journal of Arid Environments* 67.

²⁹ Lebbin, Daniel J.; Parr, Michael J.; and Fenwick, George H., *The American Bird Conservancy Guide to Bird Conservation*. The University of Chicago Press, 2010.

³⁰ Miller, R. F., S. T. Knick, D. A. Pyke, C. W. Meinke, S. E. Hanser, M. J. Wisdom, A. L. Hild. 2011. Characteristics of sagebrush habitats and limitations to long-term conservation. Pages 145-184 in S. T. Knick and J. W. Connelly (eds). *Greater Sage-Grouse: Ecology and Conservation of a Landscape Species and its Habitants*. Studies in Avian Biol. Series, vol. 38. Cooper Ornithological Society. Univ. Calif. Press. Berkeley, CA.; Wisdom, M. J., M. M. Rowland, R. J. Tausch. 2005c. Effective management strategies for sagegrouse and sagebrush: a question of triage? *Trans. N. Wildl. Nat. Res. Conf.* 70: 206-227.

³¹ See 65 Fed. Reg. 54544.

consider the cause of these infestations and the contribution of domestic livestock grazing to them.

A recent study published in the *Journal of Applied Ecology* concludes that livestock grazing contributes to the domination of some western landscapes by cheatgrass, an invasive grass that both destroys sage-grouse habitat and increases the frequency of wildfire.³² To mitigate the spread of cheatgrass, the study suggests maintaining and restoring bunchgrasses and soil crusts, two ecological features that are quickly degraded under the hooves of livestock. Such mitigation would require the decrease or elimination of livestock grazing in the affected areas.

Anderson and Inouye³³ found that viable remnant populations of native grasses and forbs are able to take advantage of improved growing conditions when livestock are removed. They found further that despite depauperate and homogenous conditions of permanent plots in 1950, after 45 years of no livestock grazing, vegetation had been anything but static, clearly refuting claims of long-term stability under shrub dominance. Mean richness per plot of ALL growth forms increased steadily in the absence of domestic livestock grazing. Grasses and forbs increased significantly. This information should be integrated into the “No Grazing” or “Reduced Grazing” alternatives and, given these findings, the BLM should analyze the impacts of long-term authorized grazing and its impacts on sagebrush communities and obligates compared to the impacts of removing livestock and allowing these communities to recover naturally.

The primary long-term threat is the widespread conversion of mid-stature cool season bunchgrasses, that did not evolve with significant herbivory, to short stature, grazing tolerant species. This livestock-induced conversion has occurred throughout much of the planning area already and is the primary source of habitat degradation for this imperiled species.

Here, the BLM has said that it will monitor for and treat invasive species associated with existing range improvements throughout all designated habitat. DLUPA/DEIS at 158. It has not provided any indication of the feasibility of doing this, the economics of doing this, or the timeframe or intervals in which this will be conducted. A primary agency complaint is that there is simply not enough funding; here, the agency hasn't even identified how many range improvements are in the planning area's designated habitat or what kind of monitoring is likely to occur. This lack of specificity severely limits the management plan amendment's efficacy.

2. Sage-grouse and sage-brush habitat

Livestock grazing is considered the single most important influence on sagebrush habitats and fire regimes throughout the Intermountain West in the past 140 years.³⁴ Grazing is the most

³² Reisner, Michael D.; Grace, James B.; Pyke, David A.; Doescher, Paul S. 2013. Conditions favouring *Bromus tectorum* dominance of endangered sagebrush steppe ecosystems. *Journal of Applied Ecology*.

³³ Anderson, Jay E. and Rishard S. Inouye. 2001. Landscape-Scale Changes in Plant Species Abundance and Biodiversity of a Sagebrush Steppe Over 45 Years. *Ecological Monographs*, 71(4), 2001, pp. 531-556.

³⁴ Knick, S. T., A. L. Holmes, R. F. Miller. 2005. The role of fire in structuring sagebrush habitats and bird communities. *FIRE AND AVIAN ECOLOGY IN NORTH AMERICA*. Studies in Avian Biology, no. 30. Page 6. Cooper Ornithological Society. Boise, ID.

widespread use of sagebrush steppe and almost all sagebrush habitat is managed for grazing.³⁵ Livestock grazing disturbs the soil, removes native vegetation, and spreads invasive species in sagebrush steppe.³⁶ Cattle or sheep grazing in sage-grouse nesting and brood-rearing habitat can negatively affect habitat quality; nutrition for gravid hens; clutch size; nesting success; and/or chick survival.³⁷ Livestock may directly compete with sage-grouse for grasses, forbs and shrub species; trample vegetation and sage-grouse nests; disturb individual birds and cause nest abandonment.³⁸ Fences have now been found to be a major source of sage grouse mortality yet no analysis of current effects of this mortality on populations and habitat fragmentation has been provided in the EIS.

Sage-grouse depend almost entirely on sagebrush for food and protection from predators. In the summer, the birds depend on the grasses and plants that grow under the sagebrush to provide nesting material, as well as high protein insects that are critical to the diet of chicks in the first few months of life. In winter, almost 99 percent of their diet is sagebrush leaves and buds. Recent estimates indicate that the sage-grouse populations have declined by approximately 86 percent from historic levels. One of the greatest threats to sage-grouse populations is the destruction and loss of habitat from a variety of management activities including livestock grazing.³⁹

The potential conflict between livestock grazing and sage-grouse intensifies near water sources due to the importance of these areas to sage-grouse, particularly during early brood rearing. Heavy cattle grazing near springs, seeps, and riparian areas can remove grasses used for

³⁵ Connelly, J. W., S. T. Knick, M. A. Schroeder, S. J. Stiver. 2004. Conservation assessment of Greater Sage-grouse and sagebrush habitats. Western Association of Fish and Wildlife Agencies. Cheyenne, WY. (July 22, 2004).; Knick, S. T., D. S. Dobkin, J. T. Rotenberry, M. A. Schroeder, W. M. Vander Haegen, C. van Riper. 2003. Teetering on the edge or too late? Conservation and research issues for avifauna of sagebrush habitats. *Condor* 105(4): 611-634.; Knick, S. T., S. E. Hanser, R. F. Miller, D. A. Pyke, M. J. Wisdom, S. P. Finn, E. T. Rinkes, C. J. Henny. 2011. Ecological influence and pathways of land use in sagebrush. Pages 203-251 in S. T. Knick and J. W. Connelly (eds). GREATER SAGE-GROUSE: ECOLOGY AND CONSERVATION OF A LANDSCAPE SPECIES AND ITS HABITATS. Studies in Avian Biol. Series, vol. 38. Cooper Ornithological Society. Univ. Calif. Press. Berkeley, CA.

³⁶ Knick et al. 2005.

³⁷ Connelly, J. W. and C. E. Braun. 1997. Long-term changes in sage-grouse *Centrocercus urophasianus* populations in western North America. *Wildl. Biol.* 3: 229-234.; Beck, J. L. and D. L. Mitchell. 2000. Influences of livestock grazing on sage grouse habitat. *Wildl. Soc. Bull.* 28(4): 993-1002. Barnett, J. F. and J. A. Crawford. 1994. Pre-laying nutrition of sage-grouse hens in Oregon. *J. Range Manage.* 47: 114-118. Coggins, K. A. 1998. Relationship between habitat changes and productivity of sage grouse at Hart Mountain National Antelope Refuge, Oregon. M.S. thesis. Oregon State University. Corvallis, OR. Aldridge, C. L. and R. M. Brigham. 2003. Distribution, status and abundance of Greater Sagegrouse, *Centrocercus urophasianus*, in Canada. *Canadian Field-Natur.* 117: 25-34.

³⁸ Vallentine, J. F. 1990. GRAZING MANAGEMENT. Academic Press. San Diego, CA. Pederson, E. K., J. W. Connelly, J. R. Hendrickson, W. E. Grant. 2003. Effect of sheep grazing and fire on sage grouse populations in southeastern Idaho. *Ecol. Model.* 165(1): 23-47.; Call, M. W. and C. Maser. 1985. Wildlife habitats in managed rangelands – the Great Basin of southeastern Oregon: sage grouse. Gen. Tech. Rep. PNW-187. U.S. Forest Service, Pacific Northwest Forest and Range Exp. Stn. Portland, OR. Holloran, M. J. and S. H. Anderson. 2005. Spatial distribution of Greater Sage-grouse nests in relatively contiguous sagebrush habitats. *Condor* 107(4): 742-752. Coates, P. S. 2007. Greater Sage-grouse (*Centrocercus urophasianus*) nest predation and incubation behavior. Ph.D. Diss. Idaho State Univ. Pocatello, ID.

³⁹ U.S. Fish and Wildlife Service April 16, 2004

cover by grouse.⁴⁰ “[R]apid removal of forbs by livestock on spring or summer ranges may have a substantial adverse impact on young grouse, especially where forbs are already scarce.”⁴¹ The BLM must modify its preferred alternative that protect and restore sage-grouse habitat, native plants, particularly in riparian areas. This should be done, not with fencing that poses other problems for sage-grouse and other wildlife, but through reduction and removal of livestock grazing in pastures that include riparian areas.

In presettlement times, the range of the sage-grouse paralleled the range of big sagebrush. Basin big sagebrush provides important cover for sage-grouse.⁴² Populations of sage-grouse have declined primarily because of loss of habitat due to overgrazing, elimination of sagebrush, and land development.⁴³ Sage-grouse populations began declining from 1900 to 1915, when livestock utilization of sagebrush rangeland was heavy.⁴⁴ In the 50's and 60's, land agencies adopted a policy of aggressive sagebrush control in order to convert sagebrush types to grassland. Chaining, frequent fire, and herbicide treatments reduced sagebrush by several million acres and sage-grouse numbers plummeted drastically.⁴⁵ Since the continued “management” of sagebrush (including chemical herbiciding, chaining, fire, and other disturbance) has led to many of the situations scientists now agree are threatening these ecosystems, BLM should select the complete removal of livestock as the preferred alternative in the LUPA/EIS.

In a recent BLM report⁴⁶, the researchers state:

The effects of grazing management on sage-grouse have been little studied, but correlations between grass height and nest success suggest that grazing may be one of the few tools available to managers to enhance sage-grouse populations....For instance, a 2 inch increase in grass height could result in a 10% increase in nest success, which translates to an 8% increase in population growth rate.

Sage-grouse historically occurred throughout the range of big sagebrush (*A. tridentata*), except on the periphery of big sagebrush distribution or in areas where it has been eliminated.⁴⁷

⁴⁰ Klebenow, D. A. 1982. Livestock grazing interactions with sage grouse. Proc. Wildlife-Livestock Relations Symp. 10: 113-123.

⁴¹ Call, M. W. and C. Maser. 1985. Wildlife habitats in managed rangelands – the Great Basin of southeastern Oregon: sage grouse. Gen. Tech. Rep. PNW-187. U.S. Forest Service, Pacific Northwest Forest and Range Exp. Stn. Portland, OR.

⁴² Benson, Lee A.; Braun, Clait E.; Leininger, Wayne C. 1991. Sage-grouse response to burning in the big sagebrush type. In: Comer, Robert D.; Davis, Peter R.; Foster, Susan Q.; [and others], eds. Issues and technology in the management of impacted wildlife: Proceedings of a national symposium; 1991 April 8-4. Snowmass Resort, CO. Boulder, CO: Thorne Ecological Institute: 97-104.

⁴³ Hamerstrom, Frederick; Hamerstrom, Frances. 1961. Status and problems of North American grouse. Wilson Bulletin. 73(3): 284-294.

⁴⁴ Patterson, Robert L. 1952. The sage-grouse in Wyoming. Federal Aid to Wildlife Restoration Project 28-R. Denver, CO: Sage Books, Inc. 341 p.

⁴⁵ Call, Mayo W. 1979. Habitat requirements and management recommendations for sage-grouse. Denver, CO: U.S. Department of the Interior, Bureau of Land Management, Denver Service Center. 37 p.

Mattise, Samuel N. 1995. Sage-grouse in Idaho: Forum 94'. Technical Bulletin No. 95-15. Boise, ID: U.S. Department of the Interior, Bureau of Land Management, Idaho State Office. 10 p.

⁴⁶ Taylor, R, Naugle, D, Mills L, 2010. Viability analyses for conservation of sage-grouse populations: Miles City Field Office, Montana Completion report 30 June 2010

Sage-grouse prefer mountain big sagebrush (*A. t. ssp. vaseyana*) and Wyoming big sagebrush (*A. t. ssp. wyomingensis*) communities to basin big sagebrush (*A. t. ssp. tridentata*) communities. Sage-grouse are totally dependent on sagebrush-dominated habitats.⁴⁸ Sagebrush is a crucial component of their diet year-round, and sage-grouse select sagebrush almost exclusively for cover.⁴⁹

When not on the lek, sage-grouse disperse to the surrounding areas.⁵⁰ Some females probably travel between leks. Patterson⁵¹ reported that in Wyoming, 92 percent of sage-grouse nests in Wyoming big sagebrush were in areas where vegetation was 10 to 20 inches (25-51 cm) tall and cover did not exceed 50 percent.

The importance of sagebrush in the diet of adult sage-grouse is impossible to overestimate. Numerous studies have documented its year-round use by sage-grouse.⁵² A Montana study, based on 299 crop samples, showed that 62 percent of total food volume of the year was sagebrush. Between December and February it was the only food item found in all crops. Only between June and September did sagebrush constitute less than 60 percent of the sage-grouse diet.⁵³

⁴⁷ Call, Mayo W.; Maser, Chris. 1985. Wildlife habitats in managed rangelands--the Great Basin of southeastern Oregon: sage-grouse. Gen. Tech. Rep. PNW-187. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station. 30 p.

⁴⁸ Benson, Lee A.; Braun, Clait E.; Leininger, Wayne C. 1991. Sage-grouse response to burning in the big sagebrush type. In: Comer, Robert D.; Davis, Peter R.; Foster, Susan Q.; [and others], eds. Issues and technology in the management of impacted wildlife: Proceedings of a national symposium; 1991 April 8-4. Snowmass Resort, CO. Boulder, CO: Thorne Ecological Institute: 97-104.

⁴⁹ Patterson, Robert L. 1952. The sage-grouse in Wyoming. Federal Aid to Wildlife Restoration Project 28-R. Denver, CO: Sage Books, Inc. 341 p.

⁵⁰ Wallestad, Richard; Pyrah, Duane. 1974. Movement and nesting of sage-grouse hens in central Montana. Journal of Wildlife Management. 38(4): 630-633.

⁵¹ Patterson, Robert L. 1952. The sage-grouse in Wyoming. Federal Aid to Wildlife Restoration Project 28-R. Denver, CO: Sage Books, Inc. 341 p.

⁵² Prescribed Fire as a Management Tool in Xeric Sagebrush Ecosystems: Is it Worth the Risk to Sage-Grouse?.

June 2009. A White Paper prepared by the Sage and Columbian Sharp-tailed Grouse Technical Committee for the Western Association of Fish and Wildlife Agencies.

Call, Mayo W. 1979. Habitat requirements and management recommendations for sage-grouse. Denver, CO: U.S. Department of the Interior, Bureau of Land Management, Denver Service Center. 37 p.

Call, Mayo W.; Maser, Chris. 1985. Wildlife habitats in managed rangelands--the Great Basin of southeastern Oregon: sage-grouse. Gen. Tech. Rep. PNW-187. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station. 30 p.

Patterson, Robert L. 1952. The sage-grouse in Wyoming. Federal Aid to Wildlife Restoration Project 28-R. Denver, CO: Sage Books, Inc. 341 p.

Schneegas, Edward R. 1967. Sage-grouse and sagebrush control. Transactions, North American Wildlife Conference. 32: 270-274.

Wallestad, Richard. 1975. Life history and habitat requirements of sage-grouse in central Montana. Helena, MT: Montana Department of Fish and Game. 65 p. In cooperation with: U.S. Department of the Interior, Bureau of Land Management.

Wallestad, Richard; Peterson, Joel G.; Eng, Robert L. 1975. Foods of adult sage-grouse in central Montana. Journal of Wildlife Management. 39(3): 628-630.

⁵³ Wallestad, Richard. 1975. Life history and habitat requirements of sage-grouse in central Montana. Helena, MT: Montana Department of Fish and Game. 65 p. In cooperation with: U.S. Department of the Interior, Bureau of Land Management.

In places, the number of young sage-grouse simply is not enough to sustain a stable population. Sage-grouse have one of the lowest recruitment rates of any upland game bird in North America. Loss of habitat, predation, drought, and poor weather conditions during hatching and brooding periods have been cited as factors leading to poor recruitment.⁵⁴ Lack of adequate nesting and brooding cover may account for high juvenile losses in many regions.⁵⁵ A decline in preferred prey may also result in increased predation on sage-grouse. Nest losses to predators vary throughout the range of sage-grouse, but predators are more successful in areas of poor-quality nesting habitat.

Manier et al. (2013) provides a fairly comprehensive review of potential impacts of livestock grazing on sage grouse.⁵⁶ Manier et al. (2013) point out that a reduction in livestock stocking rates can directly increase residual vegetation substantially, potentially assisting in meeting this target level for grasses. BLM should include residual grass requirements inside all sage-grouse habitats to be applied as automatic amendments to permit terms and conditions and Allotment Management Plans; by automatic, WWP means at the approval of the LUPA/EIS, not at the unspecified future time for site-specific permit renewals.

Here, the DLUPA/DEIS acknowledges that the NWCO consists of approximately 2.4 million acres of Preliminary Priority Habitat (“PPH”), 1.5 million acres of Preliminary General Habitat (“PGH”), and nearly 300,000 acres of linkage/connectivity habitat. DLUPA/DEIS at xxiii. Despite this, the DLUPA/DEIS, particularly the preferred alternative, fails to meaningfully address livestock grazing in a way that would protect sage-grouse and sage-grouse habitat.

The management actions specified in the DLUPA/DEIS are insufficient to protect sage-grouse, and it is apparently by design. Alternative D is to, “Consider GRSG habitat requirements in conjunction with all resource values managed by the BLM, and give preference to GRSG habitat unless site specific circumstances warrant an exemption.” DLUPA/DEIS at 150. “Consideration in conjunction,” and the allowance for unspecified and unlimited exemptions in protecting sage-grouse habitat is insufficient to constitute an adequate regulatory mechanism to protect and recover the species.

The DLUPA/DEIS’s description of sage-grouse habitat conditions on BLM-administered lands is incomplete. See DLUPA/DEIS at 244 *et seq.* While the EIS identifies each planning area Field Office, there are shortcomings with the data presented. For example the Colorado River Valley FO’s population data are nearly a decade old. *Id.* None of the FO habitat descriptions include land uses that could be affecting the leks or specifically discuss the reasons (if known) why leks are now inactive or “historic.” None of the FO descriptions discuss whether there are currently management restrictions on livestock grazing in sage-grouse habitat, or what the condition of the grazing allotments is in these FOs. This section simply doesn’t provide the

⁵⁴ Mattise, Samuel N. 1995. Sage-grouse in Idaho: Forum 94'. Technical Bulletin No. 95-15. Boise, ID: U.S. Department of the Interior, Bureau of Land Management, Idaho State Office. 10 p.

⁵⁵ Kindschy, Robert R. 1986. Rangeland vegetative succession—implications to wildlife. *Rangelands*. 8(4): 157-159.

⁵⁶ Manier, D.J., Wood, D.J.A., Bowen, Z.H., Donovan, R.M., Holloran, M.J., Juliusson, L.M., Mayne, K.S., Oyler-McCance, S.J., Quamen, F.R., Saher, D.J., and Titolo, A.J., 2013, Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater Sage-Grouse (*Centrocercus urophasianus*): U.S. Geological Survey Open-File Report 2013–1098, 170 p., <http://pubs.usgs.gov/of/2013/1098/>.

reader enough information about the existing conditions of sage-grouse habitat with which to assess the alternatives.

It is telling that the Blue Mtn portion of the WRFO “supports the largest and most productive population and has the largest continuous block of suitable and occupied” habitat, which the BLM attributes to “an abundance of wet meadow habitats and well-developed herbaceous understories.” DLUPA/DEIS at 249. Unfortunately, the document doesn’t provide any analysis of why this is so. Geography? Management? Climate? Lack of water developments on range allotments? A hard look at the difference among the planning area populations could have been informative, but the DLUPA/DEIS fails to provide that look.

The paper, “A Blueprint for Sage-grouse Conservation and Recovery (Braun 2006) states “if livestock grazing is permitted on public rangelands, is to not exceed 25-30% utilization of herbaceous forage each year. Grazing should not be allowed until after 20 June and all livestock should be removed by 1 August with a goal of leaving at least 70% of the herbaceous production each year to form residual cover to benefit sage-grouse nesting the following spring.” However, “The season of use within the planning area is generally from May through October, with much of the use in spring (May and early June).” Spring grazing is the most detrimental to both sage grass nesting success and the physiological needs cool season bunchgrasses. DLUPA/DEIS at 334. BLM’s failure to analyze this contradiction is a fundamental flaw of the DLUPA/DEIS.

Braun’s recommendation of 25-30 percent utilization is clearly exceeded by the FS’s utilization limit of 50 percent in the planning area. DLUPA/DEIS at 336. The analysis doesn’t provide any rationale for this higher level or discuss lowering it in certain important habitat areas.

BLM lists various "assumptions" that it used in its impacts analyses. DLUPA/DEIS at 458 the One of these is that "disturbance of any component of a species habitat would be detrimental, with the degree of detriment depending on the importance of the habitat component to the maintenance of the population." Herbaceous cover and height is the primary factor for sage grouse reproductive success yet the BLM implements no requirements to reduce the level of utilization or to increase cover within any specific timeframe, so the two most important needs for sage or a habitat recovery have been left unaddressed by the proposed amendment.

3. Soil and watershed conditions

Livestock grazing is known to have significant effects on soil and watershed conditions, including directly causing increased soil erosion. The phenomenon has three basic components. Grazing reduces plant cover that binds the soil and, in low desert areas, destroys microbiological soil crusts that stabilize soil surfaces.⁵⁷ Vegetation that impeded overland flow of rainfall runoff

⁵⁷ Beymer, R. J., and J. M. Klopatek. 1992. Effects of Grazing on Biological soil Crusts in Pinyon-Juniper Woodlands in Grand Canyon National Park. *American Midland Naturalist* 127:139-148; Brotherson, J. D., and S. R. Rushforth. 1983. Influence of Cryptogamic Crusts on Moisture Relationships of Soils in Navajo National Monument, Arizona. *Great Basin Naturalist* 43:73-78.

in intact watersheds was lost to grazing.⁵⁸ Grazing livestock compact the soil, so instead of rainfall soaking down toward the aquifer it flows faster and in greater volume overland.⁵⁹

Research such as the BLM's foundational Lusby⁶⁰ paper and others, document major increases in erosion on grazed lands compared to ungrazed lands. Other impacts such as plant community degradation⁶¹ are also well documented. The EIS completely fails to address these issues and only considers grazing related construction activities in its erosion calculations. This fails the 'hard look' requirement of NEPA.

Eroding soil and manure throughout watersheds end up in streams as increased sediment load, excessive nutrients, and pathogen contamination. Various grazing management strategies have not been found to reduce such watershed degradation.⁶² The Final RMP/EIS needs to discuss the impacts of each of the alternatives on the soil and watershed conditions within the planning area and to provide appropriate mitigation measures under each alternative. A list of impaired waters and the sources of contamination within the watersheds of these public lands would be an appropriate place to begin taking a "hard look" at potential grazing effects from the public lands.

Even where the DLUPA/DEIS addresses watershed impacts and the necessity of improving riparian conditions in the planning area, the plan fails to provide adequate regulatory mechanisms and instead relies on vague and nonspecific assurances of potential actions. For example, the preferred alternative fails to include specific management parameters for wet meadows within greater sage-grouse habitat. Alternative C includes scientifically-referenced limits on livestock impacts in these habitat types; the preferred alternative simply suggests management "relative to site potential." DLUPA/DEIS at 153. This implies that if an area is already in a degraded state, the site remaining degraded might be perfectly acceptable. This is not acceptable as an adequate regulatory mechanism to protect sage-grouse.

The DLUPA/DEIS waters down the NTT requirement that limits new range waters to be developed only if they benefit sage-grouse. Here, BLM's preferred alternative contains the language, "Authorize new water development only after determining that the project will not adversely impact GRSG from habitat loss. Ensure that adequate [undefined] long-term grazing management is in effect before authorizing water developments that may increase levels of use

⁵⁸ Sharp, A. L., J.J. Bond, J.W. Neuberanger, A.R. Kuhlman, and J.K. Lewis. 1964. Runoff as affected by intensity of grazing on rangeland. *Journal of Soil and Water Conservation* 19:103-106.

⁵⁹ Arnold, J. F. 1950. Changes in ponderosa pine- bunchgrass in northern Arizona resulting from pine regeneration and grazing. *Journal of Forestry* 48:118-126; Belsky, J., A. Matzke, and S. Uselman. 1999. Survey of livestock influences on stream and riparian ecosystems in the western United States. *Journal of Soil and Water Conservation* 54:419-431. Johnson, W. M. 1956. The effect of grazing intensity on plant composition, vigor, and growth of pine-bunchgrass ranges in central Colorado. *Ecology* 37:790-798; Jones, A. 2000. Effects of cattle grazing on North American arid ecosystems: a quantitative review. *Western North American Naturalist* 60:155-164.

⁶⁰ Lusby, G. 1979. Effects of Grazing on Runoff and Sediment Yield from Desert Rangeland at Badger Wash in Western Colorado, 1953-73

⁶¹ Yeo, J. 2005. *Western North American Naturalist* 65(1), 2005, pp. 91-102

⁶² Gifford, G. F., and R.H. Hawkins. 1976. Grazing systems and watershed management: a look at the record. *Journal of Soil and Water Conservation* 31:281-283; Blackburn, W. H., R. W. Knight, and M. K. Wood. 1982. Impacts of grazing on watersheds: a state of knowledge. Texas Agricultural Experiment Station, Texas A&M University, College Station, Texas.

or change of seasons of use.” DLUPA/DEIS at 154. This is a far cry from the NTT recommendation about *benefit* to sage-grouse, and sets a lower bar for new range infrastructure development. It also doesn’t address the potential for new waters to spread West Nile virus, regardless of long-term grazing management strategies. Id. Subsequent terms to “mitigate the potential impacts” of water developments fails to specify when an analysis of “conditions” will be conducted and on what timeframe the agency will use PDFs/RDFs to address the impacts. DLUPA/DEIS at 157. In Appendix I we see that the various PDF’s/RDF’s/SDF’s will only be “considered and evaluated” but are not mandatory for implementation. Clearly, this is not a regulatory mechanism on which sage grouse recovery can be assured.

The preferred alternative does not identify what constitutes a “high risk” area for fence collisions. DLUPA/DEIS at 158. Though the statement cites Christiansen 2009, it does not adopt the definition proposed in the other two alternatives on this same topic, raising concern in the reader that the BLM will later develop its own arbitrary definition. The DLUPA/DEIS is the place to define how risk will be determined, and to set a limit on what level of fence-related mortality is sufficient to adversely affect sage-grouse populations. DLUPA/DEIS at 158. Instead, the BLM has left these trigger levels vague and at the discretion of local management for enforcement and implementation, but no meaningful monitoring schedules, minimum triggers, or timeframes for mitigation are specified.

The DLUPA/DEIS’s plan to maintain sage-grouse populations or reverse downward population trends through modification or decommissioning of water developments adversely affecting riparian areas fails to include the necessary specificity. “If necessary,” leaves it up to the decision-maker to do as little as possible, and nothing in the language requires the analysis of springs, seeps, and associated pipelines through any quantitative methods on any particular schedule. DLUPA/DEIS at 154. No baseline parameters are provided with which to assess the impacts of water withdrawal on riparian conditions, and this plan is without meaningful assurances.

The preferred alternative’s plan for vegetation “treatments” to maintain sage-brush communities is also a weakened version of the NTT recommendations. DLUPA/DEIS at 155. By utilization a disturbance cap of 30 percent but not specifying 30 percent of what area, the BLM is leaving a very large loophole for its machinery to drive through. The DLUPA/DEIS indicates that in each management zone, it would retain a minimum of 70 percent of the ecological sites capable of supporting 12 percent canopy cover of Wyoming sagebrush or 15 percent canopy cover of Mountain sagebrush. DLUPA/DEIS at 155. Nowhere does the EIS indicate how much of the habitat this is currently or what this goal actually represents relative to current conditions. The BLM’s proposed exemptions are also nonspecific: “Only mappable stands of cheatgrass and pinyon/juniper encroachment will count against the disturbance cap,” fails to define “mappable.” Id. It also fails to define when mapping will be conducted, and with what frequency areas will be remapped.

In Section 3.5.2, the BLM makes conclusory and unsupported remarks regarding the supposed benefits of sagebrush treatments. In the BLM's own 2006 paper titled *Review of Livestock Grazing Management Literature Addressing Grazing Management of Sage Grouse Habitat* the BLM determined from its review of the literature that “No treatment should be

considered where sagebrush cover is less than 20 percent or within 2 miles of breeding, nesting, or brood areas”. This is echoed in a wide range of other research papers, a few of which we provide for your review as attachments. The other significant issue regarding such land manipulations is a high likelihood significant increases in invasive species. The DLUPA/DEIS does not address this.

Management objective #33 in the DLUPA/DEIS continues a tradition of planting non-native species that benefits livestock uses but only serves to harm the sage-grouse. Non-native plants are widespread on BLM lands because the lands have been degraded already to the point where non-native seedings become “necessary” to support the unsustainable stocking rates. It is a mobius strip of impairment that the DLUPA/DEIS does not seek to break from, but it risks irreparable harm to the lands in question.

The agency also exempted itself from any baseline or comparison data with which to evaluate treatments by not adopting Alt C as the preferred alternative. DLUPA/DEIS at 156. The agency’s consistent dodge of any meaningful requirements highlights the lack of regulatory mechanisms to protect soil and watershed conditions that BLM is really proposing to impose in the planning area.

On page 468 the BLM states "where the standards are being met, rangeland management is expected to result in minimal impacts on terrestrial wildlife" but this fails to take into account the fact of annual utilization. Since utilization is averaged over the course of a year (so use can be 80 percent in July but grow back some to an average of 50 percent) the BLM has not looked at the impacts of maximum use, just average.

The DLUPA/DEIS contains information about the number of acres within sage-grouse habitat that are not meeting land health standards (Table 3.53) but only if grazing is the identified as the causal factor. DLUPA/DEIS at 33. The agency has not explained how it defines causality, and it also has not indicated how many acres have livestock grazing as a *contributing* factor to the land health failures. *Id.* Moreover, the DLUPA/DEIS doesn’t identify how much of sage-grouse habitat falls into the “improve,” “Maintain,” or “Custodial” habitat types. *Id.* at 335. This is important because monitoring funds are allocated based on categorization and land health trends and improvement in sage-grouse habitat cannot be assured.

The DLUPA/DEIS confuses an absence of evidence with an evidence of absence in regard to water quality standards. DLUPA/DEIS at 360. It states, “The fact that no streams are listed as impaired by the State of Colorado in GRSG habitat indicates that all streams and water bodies are currently meeting State Water Quality Standards and that there are no known water quality impacts.” *Id.* The fact that none are listed does not imply that none are impaired; have they all been tested? What is the most recent monitoring event for these streams? The absence of data to support this claim – or even a citation to data available for public review– violates NEPA.

BLM’s scant discussion on soil qualities is not tied in any way to the analysis area. The DLUPA/DEIS identifies the characteristics of fragile or high erosion soils (DLUPA/DEIS at 366) but gives only a general overview of conditions on the soils within sage-grouse habitat. *Id.* at 367. The DLUPA/DEIS states, “Restrictions [unspecified] are imposed on other activities or

uses [unspecified] of BLM-administered lands within the planning area to improve soil conditions.” Nowhere does the DLUPA/DEIS catalog how these soils or restrictions overlap with the sage-grouse habitats in the planning area, or even describe *if* they overlap.

The DLUPA/DEIS requires that riparian areas be managed for "proper functioning condition." DLUPA/DEIS at 87. This is not a new objective; it has been a requirement of grazing on BLM lands for nearly 20 years, but with little demonstrable progress towards that goal. Secondly, "proper functioning condition" as defined in the technical reference implementing the assessment method, PFC is merely the *minimum* physical functioning necessary to maintain banks the ability under a 20 year flood event and is well below the level necessary for wildlife habitat. The agency’s use of it here to demonstrate watershed health and wildlife habitat is unsupportable.

WWP notes that BLM’s management of wild horses is much more stringent than its preferred management of livestock, despite the relatively limited portion of the planning area wild horses occur. The agency prioritizes sage-grouse habitat over horse habitat as the default mode, unlike the multiple use lens through which the agency views livestock. DLUPA/DEIS at 160. This is arbitrary and reflects biased decision-making.

4. Economic and Social Considerations

The economic and social value of public lands livestock grazing often receives disproportionate weight in BLM RMPs. The importance of public lands grazing to the economy is often grossly overestimated. In the Final RMP, the comparison of social and economic values of the proposed alternatives should demonstrate a clear understanding and consideration of the conflicts between continued grazing and other uses of the public lands.

Under the Taylor Grazing Act, the BLM must prevent injury to public lands.⁶³ The Act’s goal of stabilizing the livestock industry is “secondary” to the goals of safeguarding the rangeland and providing for its orderly use.⁶⁴

A thorough economic calculation must consider the value lost from negative environmental impacts to: water quality and quantity, wildlife habitat quality and quantity, and native vegetation. The costs of further exotic species and weed expansions, diminished recreational opportunities, potential species loss, intrinsic land value, and beauty must also be calculated.

Furthermore, there is great potential for administrative cost savings for BLM from reduced grazing. Decreased grazing would save the BLM costs associated with environmental analysis, litigation, grazing permit administration, predator control, weed spraying, and costly efforts to preserve species harmed by grazing. The GAO found that it cost the federal agencies approximately \$23.50 per AUM to administer the livestock grazing program yet only .67 cents of

⁶³ 43 U.S.C. §315(a).

⁶⁴ *Public Lands Council v. Babbitt*, 167 F.3d 1287, 1298n.5 (10th Cir. 1999), *aff’d*, 120 S.Ct. 1815 (2000).

the grazing fee goes towards covering those expenses.⁶⁵ Disappointingly, RMPs tend to calculate economic and social values based almost exclusively on potential profits or lost profits of buying and selling cattle.

The recently released Department of Interior Fiscal Year 2012 Economic Report shows that Grazing on BLM Public Lands Accounts for only 0.41% of the nation's livestock receipts and only 17,000 jobs.⁶⁶ In contrast, recreation accounts for 372,000 jobs and contributes \$45 billion to the economy.⁶⁷ The public lands grazing program among all agencies, according to a General Accountability Office report, cost \$144 million in 2005 and received only \$21 million in grazing fee receipts, for a net loss of \$123 million.⁶⁸ This loss on federal grazing programs fails to consider indirect costs, such as administration of the range program. Estimates of those indirect costs are as high as \$280 million.⁶⁹

Agricultural statistics often overestimate the value of public lands ranching to local economies. The number of permittees and full-time ranchers is often extremely inflated. In fact, "the elimination of all public lands livestock grazing would result in a loss of 18,300 jobs in agriculture and related industries across the entire West, or approximately 0.1 percent of the West's total employment."⁷⁰ For further information on the significance of federal public lands grazing to employment and economies in the West generally, see Thomas Power's article, *Taking Stock of Public Lands Grazing: An Economic Analysis*.⁷¹

Furthermore, improved environmental conditions that would result from decreased grazing would likely create more jobs and economic development related to outdoor recreation such as hiking, camping, fishing, hunting, and the associated benefits to restaurants, hotels, convenience stores, and other in the area.

In accordance with its multiple use mission, the BLM must consider land uses other than grazing in its calculation of the economic and social values of each alternative, including administrative costs and environmental impacts to water, wildlife, plants, recreation, potential species loss, intrinsic land value, and beauty.

B. Failure to comply with statutory requirements

⁶⁵ GAO 2005. LIVESTOCK GRAZING Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged

⁶⁶ Cole, K. 2013. BLM Public Lands Grazing Accounts for Only 0.41% of Nation's Livestock Receipts. Wildlife News. (available at: <http://www.thewildlifeneeds.com/2013/08/15/blm-public-lands-grazing-accounts-for-only-0-41-of-nations-livestock-receipts/>)

⁶⁷ Id.

⁶⁸ Id.

⁶⁹ KARYN MOSKOWITZ AND CHUCK ROMANIELLO, ASSESSING THE FULL COST OF THE FEDERAL GRAZING PROGRAM, October 2002, 17.

⁷⁰ GEORGE WUERHNER & MOLLIE MATTESON, WELFARE RANCHING: THE SUBSIDIZED DESTRUCTION OF THE AMERICAN WEST, 13 (2002), available at http://www.publiclandsranching.org/htmlres/wr_myth_economics.htm.

⁷¹ THOMAS POWER, TAKING STOCK OF PUBLIC LANDS GRAZING: AN ECONOMIC ANALYSIS, available at http://www.publiclandsranching.org/htmlres/wr_taking_stock.htm.

In addition to failing to take a “hard look” at the range of ecological and socioeconomic issues identified in the preceding section, the analysis in the DLUPA/DEIS contains a number of flaws that must be remedied before the final plan amendment is issued.

The DLUPA/DEIS states that the purpose of the LUPA is to 1) reevaluate resource conditions, resources, and uses; 2) to reconsider resource allocations and management decisions in order to “conserve and enhance” Greater sage-grouse habitat and to “eliminate, reduce, or minimize threats” to PPH and PGH lands; 3) to resolve multiple-use conflicts, and; 4) to disclose and assess direct, indirect, and cumulative impacts of past, present, and reasonably foreseeable future actions. DLUPA/DEIS at *xxvii*. **Unfortunately, the document fails to meet these purposes, primarily because it failed to take seriously the effects of grazing and failed to adequately assess a range of alternatives to the status quo grazing management, management which is contributing to the decline of the species in the project area.**

The preferred alternative does not seriously address the primary source of degradation within Greater sage-grouse habitat in the project area: livestock grazing. It fails to resolve the conflicts between livestock grazing uses and the other users of the project area, namely, Greater sage-grouse and the citizens who want them recovered on the landscape.

1. Range of alternatives and baseline information

The purpose provided for the NEPA analysis is "to evaluate existing conditions, resources and uses". Unfortunately, the DLUPA/ DEIS fails to provide any useful information regarding "existing conditions" of actual sage grouse habitat within the analysis area. Only general statements are provided regarding this fundamental issue, which means that the proposed action cannot be evaluated against existing conditions, depriving the reader of any understanding of the likely consequences of the action. Even the “No Action” alternative, Alternative A, doesn’t provide enough site-specific information regarding the project area with which to compare the preferred alternative or assess its efficacy.

The preferred alternative (Alt D) authorizes the exact same level of livestock grazing that currently exists, and doesn’t close any of the PPH, PGH, or linkage connectivity habitat to livestock. Table 2.2, page 42. None of the alternatives consider closing specific habitat areas or important habitat areas like the PPH, except for Alt C that closes the entire planning area to grazing and thus cannot reasonably provide an analysis of just closing PPH. *Id.*

Nowhere does the DLUPA/DEIS provide a thorough disclosure of existing management, as required by NEPA. Specifically, failing to indicate actual recent livestock use makes the preferred alternative unclear. For example, if actual use has been more like 60 percent of permitted use, the preferred alternative to authorize at the same numbers is actually an increase in livestock grazing. Because the DLUPA/DEIS lacks sufficient and accurate baseline information, it lacks a barometer with which to measure the proposed actions.

2. Range management proposals

The DLUPA/DEIS fails to make a clear and coherent case for the proposed management, and fails to take a “hard look” at the effectiveness, timeliness, or implementability of the preferred alternative. Many of the range management proposals are merely wishful thinking, deferring actual management to an unspecified future using unspecified methods. The management parameters largely weaken the recommendations of the NTT for sage-grouse recovery, which lowers a bar that is already demonstrably weaker than what the best available science recommends.

For example, Table 2.4 identifies important objectives for the Range Management Program regarding the maintenance of residual cover to reduce predation on nesting sage-grouse, avoiding habitat conversion as a consequence of herbivory, avoiding trampling of nests or eggs, avoiding livestock disturbance, avoiding impacts from grazing infrastructure, and working with partners to ensure consistent agreements. DLUPA/DEIS at 150. However, none of the actions provide any measures to actually and actively implement these objectives. Id. The only actions listed in this section entail more planning, to occur at some future date. Id.

The efficacy of these changes depends on future planning processes – allotment management plans, permit renewals, integrated ranch planning, and land health assessments – that may or may not occur. The DLUPA/DEIS lists management actions to be implemented after the land health and habitat evaluations, but the DLUPA/DEIS does not include a schedule for each allotment’s evaluation, nor does the DLUPA/DEIS discuss the frequency with which these assessments do not get done and grazing permits get renewed under the various Appropriations riders that are provided regularly by Congress.

A critical aspect of managing these lands to conserve Greater sage-grouse is deferred indefinitely and leads to a fundamental flaw in the DLUPA/DEIS NEPA process. The implementation of specific objectives to conserve, enhance, or restore PPH is dependent on development through the “NEPA analysis conducted in accordance with the permit/lease renewal process.” DLUPA/DEIS at 151. In fact, the current DLUPA/DEIS should be developing these specific objectives, not deferring to some uncertain future time. The very point of this LUPA is to provide the direction necessary to implement sage-grouse conservation at the site-specific level. Instead, under the preferred alternative, the BLM is planning to plan to protect sage-grouse.

Most egregiously, the DLUPA/DEIS is not explicit about its timeframe for these NEPA analyses, and given the agencies’ frequent and repeated use of the renewal rider, the site-specific planning might not happen for ten, twenty, or more years. Where BLM has recently renewed a permit, it won’t come around again for at least ten years, and that is under the best case scenario where BLM actually conducts timely NEPA according to a schedule, something it has never demonstrably achieved. This leaves items like #25, “Include terms and conditions on grazing permits...” (DLUPA/DEIS at 152) to this unscheduled and uncertain future.

It is also a problem that BLM is proposing to use local areas as reference benchmarks with which to compare grazing allotment land health. Id. The DLUPA/DEIS is not explicit that these benchmark reference areas should be livestock-free in order to have a true and unbiased baseline. Where BLM is proposing to use Ecological Site/Range Site Descriptions (“ESD”) as

benchmarks, it has not been explicit in stating that it will use the state that provides the optimum habitat for sage-grouse. The ESD describe a range of states for each site, but BLM's DLUPA/DEIS should require the use of the state most conducive to sage-grouse conservation.

The DLUPA/DEIS also states that BLM will establish measurable objectives using these monitoring data and manage for vegetation composition and structure consistent with ecological site potential. DLUPA/DEIS at 151. It fails to state that it will establish measurable objectives to be achieved within specific and limited time frames or else management changes will be triggered. Without mandating that the agency will actually enforce compliance with measurable objectives in a timely way, the BLM has left itself an "out" that in no way assures adequate regulation. Moreover, the habitat needs of sage-grouse within the planning area are well-researched and sufficiently understood for the BLM to adopt baseline requirements in this DLUPA/DEIS. Having failed to do so– or to even analyze an alternative that does so– is unexplained and unreasonable.

The DLUPA/DEIS states that all activities and uses within the GRSG habitats will follow existing BLM Colorado Public Land Health Standards, but the current rangeland health standards fail to directly address the habitat needs for sage grouse. Where BLM indicates the future land health assessments will include (at a minimum) specific vegetation objectives relating to sage-grouse habitat objectives (DLUPA/DEIS at 151), it does not indicate how many allotments have already been assessed without these additional parameters and when they might be revisited.

The DLUPA/DEIS includes plans to "Develop [at an unspecified future date] drought contingency plans at the appropriate landscape unit... [that] addresses ongoing drought and drought recovery." DLUPA/DEIS at 152. The DLUPA/DEIS does not explain how this would differ from BLM's current drought management plan, and for unexplained reasons jettisons the requirement to evaluate the effects of drought within sage-grouse management areas, as included under Alt. C. The BLM already has a drought policy, but the current modus operandi is to simply ask permittees what numbers they would like to reduce to and when. This is insufficient for ensuring adequate regulatory mechanisms to conserve sage-grouse during drought conditions and to offset the additional stress of livestock grazing during extreme climatic changes.

None of the currently assessed allotments within the NWCO project area have been specifically assessed for sage grouse habitat conditions. The DLUPA/DEIS has virtually no information whatsoever regarding current conditions of sage grouse habitat at the allotment level; determinations regarding rangeland health standards do not conclusively demonstrate that an allotment is meeting sage-grouse habitat needs. Whereas the DLUPA/DEIS claims that BLM uses rangeland health standards to determine wildlife habitat conditions (DLUPA/DEIS at 201), the current rangeland health standards are general, superficial, qualitative assessments designed to provide an overarching idea of the ecological conditions of a given area, not specific to habitat for any given species.

The DLUPA/DEIS includes a section to discuss "Conditions on BLM-administered Lands" but each section under this heading provides virtually no information whatsoever regarding the "conditions" for the various species listed. DLUPA/DEIS at 204 *et seq.* The

document provides only general information regarding habitat needs or whether the species exists or not within the planning area. No information is provided regarding habitat conditions, populations or population trends. The document only provides unsupported conclusory statements such as "the population trend within the planning area is believed to be stable". This is clearly insufficient for informed decision-making under NEPA.

The BLM states that "managing the timing and intensity of livestock grazing is critical to maintaining habitat conditions preferable to wildlife" yet the BLM does not propose any requirements for the "timing and intensity of livestock grazing" in the RMP amendments. DLUPA/DEIS at 469.

3. Cumulative impacts analysis

The document fails to provide adequate analysis of the fact that the vast majority of the area with any oil and gas potential has already been leased and therefore no new lease terms can be applied to them. No protections can be extended in these areas, and yet the DLUPA/DEIS does not acknowledge what percentage of the lands are effectively exempted from any proactive management.

In the sections dealing with the heavily industrialized areas, the document fails to discuss the wide range of literature now available regarding the extirpation of sage grouse from industrialized areas. Nothing within the DLUPA/DEIS will reverse these extirpations. In fact, the nearly double the amount of surface disturbance allowed under the proposed amendments, which greatly exceed the maximum allowable disturbance that has been found to have significant impacts at the population level, will lead to further declines and extirpation. This is clearly not a regulatory mechanism on which to base the sage grouse recovery.

The DLUPA/DEIS fails to disclose the impacts of the many thousands of miles of fencing that already occur within sage-grouse habitat. DLUPA/DEIS at 513. The DLUPA/DEIS fails to consider that under the "No Grazing" alternative, all of these fences could be removed. The DLUPA/DEIS also mischaracterizes the extent to which fencing would have to be constructed under the "No Grazing" alternative. DLUPA/DEIS at 468. It is well-established in federal law that the onus of keeping trespass livestock off federal lands is on the livestock owner, *not* the federal agencies. By mischaracterizing the legal reality of this, the DLUPA/DEIS misleads the reader.

In section 5.3 the BLM states "under all the alternatives, impacts on fish and wildlife would be minimized to the extent practicable and feasible through restrictions, stipulations, closures to mineral exploration and development, recreation, and in motorized travel, COAs, and by concentrating development in previously disturbed areas" but the BLM most notably ignores the impacts of livestock grazing and does not provide any direction that minimizes "to the extent practicable and feasible" the impacts of livestock grazing on sage grouse.

The DLUPA/DEIS does not adequately address the significant cumulative stress of climate change and incorporate recent science suggesting that a reduction in ungulate grazing would improve ecological resilience in the face of temperature and precipitation changes. *See*

Beschta et al 2012. The DLUPA/DEIS concedes the inevitability of significant impacts from global warming and states "climate change also may intensify in compound existing non-climate change stressors such as invasive species, pests and diseases and frequency and intensity wildfires. The expected changes to ecosystems as a result of climate change include changing of the onset of spring and fall seasons, reduced snowpack, earlier snowmelt, altering streamflows, more prolonged and intense seasonal droughts, local extinctions of species, including GRSG, and more intense and frequent extreme weather events." DLUPA/DEIS at 386. Thus, while the DLUPA strives to protect sage-grouse and maintain status quo management, it has not built a logical case for reducing the most pervasive and pernicious impacts within its management control, *i.e.* livestock disturbance.

Section 4.18 states that "impacts on GRSG and all other resources from climate change will be the same under each of the alternatives". But this is definitely not true. The impacts of climate change on a healthy resilient system are far less than on a system where resource extraction, such as livestock grazing is the predominant use. The levels of livestock grazing utilization that takes place on BLM lands places it in effect and unnatural stress upon the vegetative communities which did not even all with this non-native invasive species, cattle. There is much research regarding the impacts of drought under various levels of herbivory, the majority of which shows significant impacts to vegetation from the level of utilization generally authorized or allowed by the BLM. The impacts of drought are quite similar to that predicted from global warming. So the research regarding herbivory effects and drought are quite analogous and useful for the analysis of the impacts of climate change.

The summary section in 4.18 sums it up nicely by stating "climate change has the potential to have profound impacts for these critical habitats that support GRSG populations within the planning area. As the temperatures warm and precipitation patterns change this may change vegetation communities which may cause impacts on GRSG. These climate changes, along with current non-climate related stressors may have profound impacts on GRSG in the long term." Unfortunately, the BLM fails to implement regulatory mechanisms or even management actions necessary to address these "profound impacts on GRSG." A regulatory mechanism has to be required, mandatory and enforceable to be considered a regulatory mechanism. Nothing within the proposed amendment regarding livestock grazing has any teeth such that could reasonably be considered to be a sufficient regulatory mechanism.

Page 473 states "the avoidance of otherwise functional habitats due to human activity adds substantially to overall habitat loss" but the BLM appears to ignore the human activity of livestock grazing within sage grouse habitat and its attendant impacts to sage grouse habitat and sage ground suggesting success.

BLM proposes no changes in unrestricted motorized travel or open motorized routes to protect sage-grouse habitat. The document fails to provide any rationale as to how this complies with the BLM's open road minimization requirements of the regulations. BLM claims that the proposed alternative is equivalent to the NTT requirement (Table 2-4), but it is not. Nearly 250,000 acres within the analysis area are open to unrestricted cross country motorized vehicle

use. No rationale is provided for how this complies with applicable executive orders and the BLM's minimization requirements.

The usefulness of a maximum surface disturbance percentage is diluted by BLM's use of entire management zones instead of more biologically applicable areas. In addition, BLM nearly doubles the allowable disturbed areas from 3% to 5%.

While the appendices to the DEIS mention the risk of West Nile virus, the proposed alternative fails to address the thousands of existing permitted breeding sites and the 'preferred' action only addresses new pond construction but no other added water development features.

J-5 states "LANDFIRE lacks specificity for types of sage brush vegetation and has relatively low accuracy, however it is currently the best available range wide mapping product". This is not the case. The BLM has highly accurate and detailed information in the SVIM data which has been collected. The BLM briefly discusses the fine scale monitoring proposed but fails to provide any details or how the information collected will be utilized. No information is provided regarding the trigger points in the data and what actions will be taken based on the data.

K-4 states that "large cool season grasses such as needle and thread and blue bunch wheatgrass provide the most opportunity for hiding cover. Conversion of the species to smaller more grazing resistant grasses like Sandberg's bluegrass will reduce the hiding cover available". Unfortunately, the BLM provides no information whatsoever regarding this fundamental issue and so the reader has no way of knowing what percentage of this conversion has already occurred.

On K-5 the BLM states that standard 4 "requires that these recommendations [Appendix A of the Colorado Greater Sage Grouse Conservation Plan] are either adopted or that substitute measures are implemented". Nothing within Standard 4 provides any regulatory mandates to do what the BLM states here. During the last 3 to 4 years, grazing permit decisions within the project area failed to mention or implement the Colorado sage-grouse conservation strategy let alone implemented it in any fashion.

4. Adaptive management and monitoring

The BLM states that it will be implementing adaptive management but fails to define any of the necessary requirements to implement adaptive management. DLUPA/DEIS at 192 *et seq.* Meaningful "adaptive management" requires clearly defined if/then statements with mandatory monitoring with defined statistical rigor. The EIS and proposed amendments failed to provide any of this. This section also states that the purpose of "adaptive management" in the BLM's mind is only to provide "certainty that unintended negative impacts to sage grouse will be addressed before consequences become severe or irreversible". The entire purpose of this amendment process is to recover sage grouse so that they do not need to be listed under the Endangered Species Act. Merely monitoring for "severe or irreversible" impacts the sage grouse does not meet this need. Any downward trend for an at-risk species is cause for concern.

Once again, the DLUPA/DEIS defers actual decision-making to an unspecified future time. The DLUPA/DEIS identifies the general attributes of adaptive management triggers, but fails to specify them. DLUPA/DEIS at 193. This is simply not concrete enough to provide any assurance that the agency has designed conservation for the sage-grouse in NWCO. Similarly, the intention for the composition of the adaptive management working group suggests strong political influences in the process instead of a strict scientific basis. DLUPA/DEIS at 194.

If monitoring and habitat assessments and changes only occur as part and parcel of site-specific grazing decisions (as the DLUPA/DEIS repeatedly implies), the chance to “adapt” to changing conditions will be limited. In light of the agency’s own acknowledgment/assumptions about climate change affecting the habitat availability, it would have been a reasonable alternative to include some across-the-board adaptations (lowered livestock authorizations, for example) in this DLUPA.

5. Range of alternatives

The NEPA requires that the BLM consider a reasonable range of alternatives. See 42 U.S.C. § 4332(2)(C)(iii). Considering the presence of endangered, special status, and sensitive species in the planning area, a no grazing alternative and 50% reduction in permitted grazing should be included within the reasonable range of alternatives. Unfortunately, the DLUPA/DEIS proposes status quo grazing under three alternatives, and wholesale cessation of grazing under the remaining alternative. This is hardly a range of alternatives and given the primacy of livestock impacts of the landscape, a “hard look” at eliminating grazing in the most at-risk habitats or regions would have been eminently reasonable. Failure to have done so fails NEPA.

6. Areas needing further clarification

The DLUPA/DEIS mischaracterizes the context of livestock grazing in the project area, misleading the public about the validity of existing uses. For example, on page 40, the DLUPA/DEIS identifies, “Preserve valid existing rights, which include any leases, claims, or other use authorizations established before a new or modified authorization, change in land designation, or new or modified regulation is approved.” It is unclear exactly which leases, claims, or other use authorizations this section is referencing, but conflating a grazing lease with a right is a serious misstatement. Grazing permits are privileges, not rights. This distinction was intended by the Taylor Grazing Act, articulated in agency regulations, restated in grazing policies, confirmed by scholars, and upheld by the Supreme Court.⁷² The DLUPA/DEIS must be revised to reflect this distinction and to avoid the impression that it is ascribing any rights to grazing permittees and lessees.

Table 2.3 compares Alternatives A and B. DLUPA/DEIS at 45-142. This is exceedingly confusing, since Alt B is not the preferred alternative. This extensive section of the

⁷² 43 U.S.C. §315b.; *See, e.g.*, 36 C.F.R. 222.3(b); USDI-BLM, USDA-Forest Service. 1995. Rangeland Reform '94 Final Environmental Impact Statement. USDI-BLM. Washington, D.C.: 125; *Public Lands Council v. Babbitt*, 529 U.S. 728, 741 (2000). *See also* *U.S. v. Fuller*, 409 U.S. 488 (1973) (holding that the federal government is not required by the Fifth Amendment to compensate a property owner in a condemnation action for the extra value of his private property attributed to his federal grazing permit).

DLUPA/DEIS would be more useful if it explained what the BLM is proposing to do compared with what it is doing, instead of laying out the differences between the current management and an alternative already rejected. Table 2.4 compares the three action alternatives, making the reader cross-reference the preferred alt with Alt B and then turn back to Table 2.3 to understand how this compares with the current management. This is inefficient and unclear.

The DLUPA/DEIS declares that livestock grazing is not a surface disturbance, despite all evidence to the contrary. We include as an attachment to these comments a number of papers dealing with this issue including the BLM's own research within the project area itself which found significant increases in soil erosion and runoff in graze areas compared to on graze areas.⁷³

IV. RETIREMENT OF GRAZING PERMITS

Because of economic pressures and uncertainty, many ranchers in the West would like to voluntarily retire their grazing permits, the LUPA should grant ranchers the freedom to retire their permits if voluntarily waived to the BLM. Voluntary grazing permit retirement would offer permittees a new economic opportunity while providing protection and restoration for the land managed by the BLM.

The Final LUPA should also include language for permit retirement authorizations, such as:

Grazing privileges for allotments that are wholly or partially located within the NWCO District planning area that are lost, relinquished, canceled, or have base property sold without transfer shall have attached AUMs held for watershed protection and wildlife habitat.

There is no reason why BLM only considered retirement under Alternative C in the DLUPA/DEIS, at 151. The option of retirement upon voluntary relinquishment should be available under all alternatives.

V. CONCLUSION

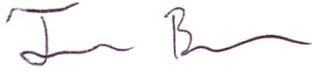
In conclusion, Western Watersheds Project thanks you for the opportunity to comments on the NWCO DLUPA/DEIS. WWP sincerely hopes that these comments are helpful to BLM in improving the plan, and that the agency will recognize the deficiencies of the preferred action insofar as protecting Greater sage-grouse. WWP will happily clarify or elaborate upon any of the preceding comments if necessary for the purposes of agency understanding.

Please keep Western Watersheds Project on the list of interested public for this project. Please feel free to contact me by telephone at (208) 788-2290 or by e-mail at

⁷³ Lusby, G. 1979. Effects of Grazing on Runoff and Sediment Yield from Desert Rangeland at Badger Wash in Western Colorado, 1953-73

travis@westernwatersheds.org.

Sincerely,

A handwritten signature in purple ink, appearing to read "Travis Bruner". The signature is fluid and cursive, with the first name "Travis" and the last name "Bruner" clearly distinguishable.

Travis Bruner, J.D.
Public Lands Director
Western Watersheds Project
PO Box 1770
Hailey, ID 83333

Enclosed: All available reference literature contained on CD enclosed in postal submission.