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December 2, 2013

Mr. James Cagney, Project Manager
Bureau of Land Management
BLM – Greater Sage Grouse EIS
2815 H Road
Grand Junction, CO, 81506

RE: Northwest Colorado Sage Grouse Draft EIS Comments

Dear Mr. Cagney,

I am writing on behalf of the North American Grouse Partnership (NAGP) to provide comments and recommendations on the Draft Northwest Colorado Greater Sage-Grouse Resource Management Plan (RMP) Amendment and Draft Environmental Impact Statement (EIS). I also want to thank you for affording us the opportunity to review these documents and to assist in the process toward a science-based Final RMP/EIS. Our comments are included below and focus on the ability for the BLM/USFS to properly manage fish and wildlife habitats, particularly for greater sage-grouse, in Colorado. We hope our comments will assist the Colorado BLM/USFS in balancing the needs among energy development, domestic livestock grazing, and the conservation of natural resources on our federal public lands.

The NAGP works to bring the plight of declining grouse species and their habitats to the attention of the public, provides oversight for the health of grouse populations, implements solutions for the problems causing grouse declines, and encourages public policies and management decisions that will enhance important habitats and grouse populations. Our mission is to promote grouse and the habitats necessary for their survival and reproduction.

Our comments point to the fact that we believe the BLM/USFS's preferred alternative (Alternative E), if adopted as final, would lead to further declines in native habitats for greater sage-grouse. Therefore, many of our recommendations focus on what we believe will restore and maintain healthy and secure sagebrush steppe, most of which have been well described in the analysis completed in the EIS.

We are not suggesting that all of the actions described for Alternative B should be adopted in the final RMP/LRMP, but we do believe there will be significant benefits for greater sage-grouse and other wildlife if the Colorado BLM and USFS adopt several of those actions described under Alternative B.

Please consider the following specific comments and recommendations on the EIS when preparing the final RMP/LRMP:

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Specific Comments:

Objective:

Page 45: We believe the objective stated on page 45 should be modified to include habitats that may sustain GRSG populations. We believe the objective should be modified as follows: “Objective: Maintain and enhance populations and distribution of GRSG by protecting and improving sagebrush habitats that sustain *or have the potential to sustain* GRSG populations.”

Travel:

Page 45: We support the direction in Alternative B to limit motorized travel in the PPH to existing roads, primitive roads, and trails at a minimum.

Page 48: We support the direction in Alternative B that would require travel management to evaluate the need for permanent or seasonal road or area closures in the GRSG PPH. In addition, we believe all federal public lands should be managed as “closed to motorized travel” unless posted as “open.”

Lands and Realty:

Page 59: We support the direction in Alternative B that would make all GRSG PPH areas exclusion areas for new BLM ROW or USFS SUA permits

Page 63: We support the direction in Alternative B that would require new ROWs and SUAs within the GRSG PPH, within designated ROW or SUA corridors encumbered by existing ROW or SUA authorizations, new ROWs or SUAs may be collocated only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs or SUAs.

Page 63: We support the direction in Alternative B for the GRSG PPH that, subject to valid existing rights: where new ROWs or SUAs associated with valid existing rights are required, collocate new ROWs or SUAs within existing ROWs or SUAs or where it best minimizes GRSG impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 percent for that area, then evaluate and implement additional effective mitigation to offset the resulting loss of GRSG habitat.

Page 64: We support the direction in Alternative B that would evaluate and take advantage of opportunities to remove, bury, or modify existing power lines within GRSG PPH areas.

Page 65: We support the direction in Alternative B that would require existing leases, ROWs or SUAs within the GRSG PPH that have had some level of development (road, fence, well, etc.) and are no longer in use, to reclaim the site by removing these features and restoring the habitat for greater sage-grouse.

Page 65: We support the direction in Alternative B that would require future planning direction to relocate existing designated ROW corridors crossing GRSG PPH void of any authorized ROWs, outside of the PPH area. If relocation is not possible, undesignate that entire corridor during the planning process.

Page 65: We support the direction in Alternative B that would make GRSG PGH areas “avoidance areas” for new ROWs or SUAs.

Page 68: We support the direction in Alternative B that would require new ROWs or SUAs within the GRSG PGH, where necessary, to be collocated within existing ROWs or SUAs where possible.

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Lands and Realty (continued):

Page 68: We support the direction in Alternative B that would require retaining public ownership of all federal public lands within the GRSG PPH and that would allow consideration of exceptions where: 1) there is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the GRSG PPH area; and/or 2) within GRSG PPH areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure, consideration should be given to pursuing a permanent conservation easement.

Page 70: within the GRSG PPH where suitable conservation actions cannot be achieved, BLM and USFS will seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance, or restore GRSG habitat.

Page 72: We support the direction in Alternative B that would require BLM and USFS to propose lands within GRSG PPH areas for mineral withdrawal.

Page 73: We support the direction in Alternative B that would require BLM and the USGFS to not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures.)

Range Management:

General Comments: We are very concerned about the domestic livestock grazing systems authorized by many of the BLM and USFS administrative units in Northwest Colorado. GRSG require sufficient cover over large landscapes (>100,000 acres) for nesting (April and May), brood rearing (May, June, July) and survival, and it is our opinion that few grazing systems authorized by BLM or USFS in NW Colorado provide adequate cover for these activities and during this time period to ensure sufficient reproductive success for GRSG. Without adequate cover for nesting and brood rearing, it is our opinion that—and the professional opinion of many scientists—GRSG populations in Northwest Colorado will decline.

We believe that nearly all grazing systems need to incorporate adequate rest or very low livestock stocking rates (less than 35% annual utilization) to enable the native sagebrush community to maintain its health and vigor and to provide adequate cover for GRSG and other grassland/shrubland birds. To provide for successful nesting and brood rearing, good cover is needed in the spring from the previous years' growth and in the spring and summer from the current year's growth. Even with less than 35% utilization, many areas near water sources, roads, and fence-lines can be over-grazed and ultimately provide poor nesting and brood-rearing success.

Recommendation — We recommend that the BLM and USFS modify their respective livestock grazing permits, leases and grazing allotment management plans in the sagebrush ecosystem and adjacent pinyon-juniper woodlands to incorporate grazing systems that provide at least 15-month of rest once every 3 years for each grazing pasture within the or require immediate removal of livestock once a 35% utilization level is reached within any given year on federal public lands under their purview.

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Range Management (continued):

Livestock-Free Zones — Livestock-free portions of our GRSG range may be necessary to ensure viable populations are maintained in otherwise disturbed landscapes, particularly in sagebrush communities where annual precipitation is less than 20 inches. We believe that closing these areas to livestock grazing through the permanent retirement of existing grazing permits should protect them from the risk of overgrazing, greatly reduce the risk of invasion by undesirable vegetation (invasive plants), ameliorate the negative impacts of developments, and enable federal land managers to compare these lands to other grazed areas, enabling them to better evaluate the effects of livestock grazing and energy developments on these sagebrush communities and GRSG populations.

Recommendation — We recommend that the BLM and USFS in Northwest Colorado seek opportunities for retirement of grazing privileges as an option in and adjacent to sagebrush communities when base property is transferred or the current permittee is willing to retire grazing on all or part of an allotment or leases. As an alternative to complete retirement of grazing privileges, we recommend that livestock grazing be deferred for long periods (perhaps 5-10 years) in some sagebrush communities that support or have supported leks.

Safe Water Developments — Water can be a critical factor in determining the abundance and distribution of wildlife, especially in arid western ecosystems; although the impacts vary by species, habitat, and season. Over the past 150 years, the availability and distribution of water have been altered dramatically by natural processes and human actions. By some estimates, 95 percent of natural riparian ecosystems (those associated with water features) and wetlands in the arid West already have been degraded or lost. We believe the loss of natural water resources threatens GRSG population viability, and we realize domestic livestock and other wildlife also require water to survive.

Federal public-land managers and ranchers have improved existing water supplies and developed new water systems for livestock and wildlife. Hundreds-of-thousands of these water developments are scattered across the western U.S. Water developments increasingly replace or augment diminishing natural sources in many areas and have become crucial for many species, especially GRSG, when stressed by drought, high temperatures or rearing young. These water sources and associated moist-soil (riparian) habitats are critical for GRSG survival and reproduction. Springs, wetlands, seeps, wet meadows, bogs, fens, ephemeral and permanent streams, rivers, ponds, stock tanks and lakes all serve as or are surrounded by crucial habitats for domestic livestock, GRSG and other wildlife in the arid West. We believe that all water sources and associated moist-soil habitats on federal public lands administered by the BLM and USFS in Northwest Colorado should be protected from the effects of livestock disturbance and grazing. In most cases, livestock drinking water can be transported away from water sources and riparian habitats to sites that are not in limited supply and that are more compatible with livestock disturbance and grazing.

Recommendation — We recommend that the BLM and USFS require all administrative units under their purview in Northwest Colorado to protect all water sources and associated moist-soil (riparian) habitats by fencing off areas and providing off-site watering facilities that use pipelines and tanks to provide higher quality water for livestock while protecting wildlife habitat from the effects of domestic livestock disturbances.

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Range Management (continued):

Wildlife Escape Structures — While GRSG depend on livestock troughs and tanks for water, they also can drown while attempting to drink or bathe in these structures. It is a common practice to shut off water to tanks and troughs when livestock are moved, forcing GRSG and other wildlife that have become dependent on that water supply to find alternative—often distant—sources or perish. This is particularly harmful during the warmest months when GRSG are rearing young. We believe that preventing wildlife fatalities at water troughs not only conserves GRSG, but also helps maintain the clean, uncontaminated water that is critical for any livestock operation. Decaying animal carcasses greatly diminish water quality.

The need for wildlife escape structures (also called wildlife ramps or bird ladders) in troughs and tanks has been well documented. Most livestock water troughs were not designed or installed with GRSG in mind, and they seldom include a means of escape for wild animals that fall into the water while attempting to drink or bathe. These animals drown unless a properly-designed and well-placed escape structure is available. Wildlife drownings increase when alternative water supplies are unavailable and escape structures are absent, especially when water levels are lowest and during periods of drought, high temperatures and wind. Tragically, some of the most common attempts to provide wildlife escape structures do not work or are unreliable. Effective wildlife escape structures are easy and inexpensive to build and install and can eliminate GRSG mortality in water troughs and tanks. Properly designed and installed, these structures also improve livestock health by maintaining clean and readily-available water.

Recommendation — We recommend that the BLM and USFS in NW Colorado install and maintain escape structures on all troughs and tanks with vertical or nearly vertical sides and maintain high water levels in these troughs and tanks throughout the year.

Fence Collisions — Research has found that collisions (mainly with fences) account for a significant source of mortality in GRSG. This mortality occurs primarily when hens are searching for suitable nest sites and laying and incubating eggs. Loss of hens at this time of year may impact overall population numbers more than would be expected when compared to other times of the year. Low-cost methods to increase the visibility of fences have been developed as one way to reduce adult mortality and improve nesting and brood-rearing success.

Recommendation — We recommend that all fences be removed on federal public lands administered by the BLM and USFS in NW Colorado that lie within three (3) miles of any active or recently-active GRSG lek or else be fitted with appropriate visibility markers to reduce fence collisions. We also recommend that all fences around small (<320 acres) pastures in and adjacent to the sagebrush ecosystem be fitted with visibility markers.

Page 73: We support the direction in Alternative B that would require the BLM and USFS to incorporate GRSG habitat objectives and management considerations into all BLM and USFS grazing allotments within the GRSG PPH through Allotment Management Plans or permit renewals and/or USFS Annual Operating Instructions.

Page 75: We support the direction in Alternative B that would require the BLM and USFS to work cooperatively on integrated ranch planning within GRSG habitat so operations with deeded/BLM and/or USFS allotments can be planned as single units.

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Range Management (continued):

Page 77: We support the direction in Alternative B that would require the BLM and USFS to prioritize completion of land health assessments (USFS may use other analyses) and processing grazing permits within GRSG PPH areas. We believe they should focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for GRSG. Utilize BLM Ecological Site Descriptions (USFS may use other methods) to conduct land health assessments to determine if standards of range-land health are being met.

Page 79: We support the direction in Alternative B that would require the BLM and USFS to conduct land-health assessments in all designated habitats (ADH) that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. If local/state seasonal habitat objectives are not available, use GRSG habitat recommendations from Connelly et al. 2000b and Hagen et al. 2007.

Page 80: We support the direction in Alternative B that would require the BLM and USFS to develop specific objectives to conserve, enhance or restore GRSG PPH based on BLM Ecological Site Descriptions (USFS may use other methods) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets GRSG habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances GRSG habitat in the NEPA document prepared for the permit renewal (Doherty et al. 2011b; Williams et al.2011. As we mentioned above, we recommend that the BLM and USFS modify their respective livestock grazing permits, leases and grazing allotment management plans in the sagebrush ecosystem and adjacent pinyon-juniper woodlands to incorporate grazing systems that provide at least 15-month of rest once every 3 years for each grazing pasture within the or require immediate removal of livestock once a 35% utilization level is reached within any given year on federal public lands under their purview.

Page 82: We support the direction in Alternative B that would require the BLM and USFS to manage for vegetation composition and structure in all designated habitats consistent with ecological site potential and within the reference state to achieve GRSG seasonal habitat objectives.

Page 84: We support the direction in Alternative B that would require the BLM and USFS to implement management actions (grazing decisions, Annual Operating Instructions [USFS only], Allotment Management Plan/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal GRSG habitat requirements (Connelly et al. 2011). Consider singly, or in combination, changes in:

- 1) Season or timing of use;
- 2) Numbers of livestock (includes temporary non-use or livestock removal);
- 3) Distribution of livestock use;
- 4) Intensity of use; and
- 5) Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) (Briske et al. 2011).

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Range Management (continued):

Page 87: We support the direction in Alternative B that would require the BLM and USFS during periods of drought to prioritize evaluating effects of the drought in GRSG PPH areas relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (Thurow and Taylor 1999), we recommend that the BLM and USFS ensure that post-drought management allows for vegetation recovery that meets GRSG needs in GRSG PPH areas.

Page 87: We support and recommend an expansion of the direction in Alternative B to require the BLM and USFS to manage all riparian areas and wet meadows on federal public lands under their purview for proper functioning condition or other similar methodology.

Page 89: We support and recommend an expansion of the direction in Alternative B to require the BLM and USFS to manage wet meadows on federal public lands under their purview to maintain a component of perennial forbs with diverse species richness relative to site potential (i.e., reference state) to facilitate brood rearing. Also, we recommend that they must conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge to minimize elevated mortality during the late brood rearing period (Hagen et al. 2007; Kolada et al. 2009; Atamian et al. 2010).

Page 91: We support the direction in Alternative B that would require the BLM and USFS to strive to attain reference state vegetation where riparian areas and wet meadows meet proper functioning condition or meet standards using other similar methodology (USFS only), relative to the ecological site description. For example: Within GRSG PPH, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by GRSG in the hot season (summer) (Aldridge and Brigham 2002; Crawford et al. 2004; Hagen et al. 2007).

Page 93: We support the direction in Alternative B that would require the BLM and USFS to authorize new water development for diversion from spring or seep source only when GRSG PPH would benefit from the development. This includes developing new water sources for livestock as part of an Allotment Management Plan/conservation plan to improve GRSG habitat.

Page 93: We support the direction in Alternative B that would require the BLM and USFS to analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within GRSG PPH. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to GRSG.

Page 94: We support the direction in Alternative B that would require the BLM and USFS to only allow treatments that conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat).

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Range Management (continued):

Page 94: We support the direction in Alternative B that would require the BLM and USFS to evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG PPH to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an Allotment Management Plan/Conservation Plan or if they provide value in conserving or enhancing the rest of the PPH, then no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments (or other analyses [USFS only]) (Davies et al. 2011).

Page 95: We support the direction in Alternative B that would require the BLM and USFS to design any new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattleguards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.

Page 95: We support the direction in Alternative B that would require the BLM and USFS to use applicable PDFs or RDFs (see this table's PDFs/RDFs) when developing or modifying water developments to mitigate potential impacts from West Nile virus (Clark et al. 2006; Doherty 2007; Walker et al. 2007b; Walker and Naugle 2011).

Page 96: We support the direction in Alternative B that would require the BLM and USFS to evaluate existing structural range improvements and location of supplements (salt or protein blocks) to make sure they conserve, enhance or restore GRSG habitat.

Page 96: We support the direction in Alternative B that would require the BLM and USFS to reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas within GRSG PPH based on proximity to lek, lek size, and topography (Christiansen 2009; Stevens 2011).

Page 97: We support the direction in Alternative B that would require the BLM and USFS to monitor for, and treat invasive species associated with existing range improvements (Gelbard and Belnap 2003; Bergquist et al. 2007).

Page 98: We support the direction in Alternative B that would require the BLM and USFS to maintain retirement of grazing privileges as an option in GRSG PPH when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats (Crawford et al. 2004) in evaluating retirement proposals. Each planning effort will identify the specific allotment(s) where retirement of grazing privileges is potentially beneficial to GRSG.

Fluid Minerals:

Page 101: We support the direction in Alternative B that would require the BLM and USFS to close GRSG PPH areas to fluid mineral leasing. Upon expiration or termination of existing leases, we recommend that the BLM and USFS do not accept nominations/expressions of interest for parcels within PPH.

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Fluid Minerals (continued):

Page 101: We support the direction in Alternative B that would require the BLM and USFS to allow geophysical exploration within GRSG PPH areas to obtain information for existing federal fluid mineral leases or areas adjacent to state or fee lands within GRSG PPH areas. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal timing limitations and other restrictions that may apply.

Page 102: We support the direction in Alternative B that would require the BLM and USFS to apply the following conservation measures through RMP implementation decisions (e.g., approval of an Application for Permit to Drill, and Sundry Notice) and upon completion of the environmental record of review, include appropriate documentation of compliance with NEPA. In this process evaluate, among other things:

1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and
2. Whether the action is in conformance with the approved RMP.

Page 105: We support the direction in Alternative B that would require the operator/lessee required to conduct site-specific review of proposed projects in the GRSG PPH prior to approval of Applications for Permit to drill. For leases within PPH, the following COAs would apply:

- Preclude new surface occupancy on existing leases within PPH.
- If the lease is entirely within PPH, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section.
- If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.

Page 106-107: We support the direction in Alternative B that would require the operator/lessee to conduct site-specific review of proposed projects in the GRSG PPH prior to approval of Applications for Permit to drill. For leases within PPH, the following COAs would apply:

- Preclude new surface occupancy on existing leases within PPH.
- If the lease is entirely within PPH, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section.
- If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. BLM and USFS would require any development to be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.

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Fluid Minerals (continued):

Page 107-108: We support the direction in Alternative B that would require the operator/lessee to conduct site-specific review of proposed projects prior to approval of Applications for Permit to drill. For leases within PPH, the following COAs would apply:

- Preclude new surface occupancy on existing leases within PPH.
- If the lease is entirely within PPH, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section.
- If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.

Page 108: We support the direction in Alternative B that would require the BLM and USFS to apply a seasonal restriction on exploratory drilling in the GRSG PPH to prohibit surface-disturbing activities during the lekking, nesting and early brood-rearing season.

Page 109: We support the direction in Alternative B that would require the BLM and USFS to closely examine the applicability of categorical exclusions in PPH. If extraordinary circumstances review is applicable, the BLM/USFS should determine whether those circumstances exist.

Page 111: We support the direction in Alternative B that would require the BLM and USFS to complete Master Development Plans for leases within the GRSG PPH in lieu of single-well Applications for Permit to Drill processing for all but wildcat wells.

Page 111: We support the direction in Alternative B that would require the BLM and USFS to limit proposed surface disturbances to less than 3 percent on leases within the Colorado MZ that are not yet developed in PPH.

Page 111: We support the direction in Alternative B that would require the BLM and USFS to conduct, when necessary, additional effective mitigation in 1) GRSG PPH areas or-less preferably-2) GRSG PGH (dependent upon the area-specific ability to increase GRSG populations).

Page 111: We support the direction in Alternative B that would require the BLM and USFS to conduct additional, effective mitigation in the GRSG PPH first within the same population area where the impact is realized, and if not possible, then conduct mitigation within the same Management Zone as the impact, per 2006 WAFWA Strategy (p. 2-17).

Page 111: We support the direction in Alternative B that would require the BLM and USFS to require (in Notice to Lessees) unitization when deemed necessary for proper development and operation of an area to minimize adverse impacts to GRSG.

Page 112: We support the direction in Alternative B that would require the BLM and USFS to identify areas where acquisitions (including subsurface mineral rights) or conservation easements would benefit GRSG.

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Fluid Minerals (continued):

Page 114: We support the direction in Alternative B that would require the BLM and USFS to require a full reclamation bond for future actions in the ADH specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Ensure bonds are sufficient for costs relative to reclamation (Connelly et al. 2000a; Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors for the BLM and USFS will perform the work.

Page 114: We support the direction in Alternative B that would require the BLM and USFS, where applicable and technically feasible, apply PDFs/RDFs (see this table's Fluid Minerals and Multiple Program sections) as mandatory COAs within GRS G PPH.

Solid Minerals -- Coal:

Page 114: We support the direction in Alternative B that would require the BLM and USFS to apply minimization of surface-disturbing or disruptive activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRS G habitats. Apply these measures during activity level planning. Use additional effective mitigation to offset impacts as appropriate (determined by local options/needs).

Page 115: We support the direction in Alternative B that would require the BLM and USFS to find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5.

Page 118: We support the direction in Alternative B that would require the BLM and USFS to grant no new mining leases for sub-surface mining in the GRS G PPH unless all surface disturbances (appurtenant facilities) are placed outside of the GRS G PPH area. In GRS G PPH areas, place any new appurtenant facilities outside of PPH. Where new appurtenant facilities associated with the existing lease cannot be located outside the GRS G PPH area, collocate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the absolute minimum standard necessary.

Locatable Minerals:

Page 120: We support the direction in Alternative B that would require the BLM and USFS to recommend withdrawal from mineral entry based on risk to the GRS G and its habitat from conflicting locatable mineral potential and development in the GRS G PPH.

Page 122: We support the direction in Alternative B that would require the BLM and USFS to make any existing claims within the withdrawal area of the GRS G PPH subject to validity exams or buy out, including claims that have been subsequently determined to be null and void in the proposed withdrawal.

Page 122: We support the direction in Alternative B that would require the BLM and USFS, in plans of operations required prior to any proposed surface disturbing activities in the GRS G PPH, to include the following:

- Additional effective mitigation in perpetuity for conservation (in accordance with existing policy, WO IM 2008-204). For example, purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government.
- Consider seasonal restrictions if deemed effective.

Page 123: We support the direction in Alternative B that would require the BLM and USFS, where applicable to prevent unnecessary or undue degradation in the GRS G PPH, apply PDFs/RDFs as mandatory COAs.

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Non-energy Leasable Materials:

Page 123: We support the direction in Alternative B that would require the BLM and USFS to close the GRSG PPH to non-energy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.

Page 123: We support the direction in Alternative B that would require the BLM and USFS, for existing non-energy leasable mineral leases in the GRSG PPH, in addition to the solid minerals PDFs/RDFs, to follow the same PDFs/RDFs applied to Fluid Minerals when wells are used for solution mining.

Salable Mineral Materials:

Page 124: We support the direction in Alternative B that would require the BLM and USFS to close the GRSG PPH to mineral material sales.

Page 126: We support the direction in Alternative B that would require the BLM and USFS to restore salable mineral pits in the GRSG PPH no longer in use to meet GRSG habitat conservation objectives.

Page 126: We support the direction in Alternative B that would require the BLM and USFS, where the federal government owns the mineral estate and the surface is in non-federal ownership, to apply the conservation measures applied to public lands in the GRSG PPH.

Page 127: We support the direction in Alternative B that would require the BLM and USFS, where the federal government owns the surface, and the mineral estate is in non-federal ownership, to apply appropriate Fluid Mineral PDFs to surface development in the GRSG PPH.

Fuels Management:

Page 127: We support the direction in Alternative B that would require the BLM and USFS to not allow the sagebrush canopy cover to be reduced to less than 15 percent (Connelly et al. 2000a; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PPH and conserve habitat quality for the species. Closely evaluate the benefits of the fuel breaks against the additional loss of sagebrush cover in the future NEPA process.

Page 129: We support the direction in Alternative B that would require the BLM and USFS to apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area.

Page 130: We support the direction in Alternative B that would require the BLM and USFS to not allow any treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.

Page 131: We support the direction in Alternative B that would require the BLM and USFS to prohibit the use of fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species) (Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site specific variables allow, we support the use of prescribed fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (Brown 1982).

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Fuels Management (continued):

Page 132: We support the direction in Alternative B that would require the BLM and USFS to monitor and control invasive vegetation, post-treatment in the GRSG PPH.

Page 134: We support the direction in Alternative B that would require the BLM and USFS to rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise (as per Wyoming Game and Fish Department 2011).

Page 135: We support the direction in Alternative B that would require the BLM and USFS to require the use of native plant seeds for fuels management treatment in the GRSG PPH based on availability, adaptation (site potential), probability for success (as per Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat objectives (as per Pyke 2011).

Page 136: We support the direction in Alternative B that would require the BLM and USFS PPH) to design post fuels management in the GRSG PPH to ensure long term persistence of seeded or pre-burn native plants. We realize this may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

Page 136: We support the direction in Alternative B that would require the BLM and USFS to design fuels management projects in the GRSG PPH to strategically and effectively reduce wildfire threats in the greatest area. We realize this may require fuels treatments implemented in a more linear versus block design (as per Launchbaugh et al. 2007).

Page 136: We support the direction in Alternative B that would require the BLM and USFS, during fuels management project design in the GRSG PPH, to consider the utility of using livestock to strategically reduce fine fuels (as per Diamond et al. 2009), and implement grazing management that will accomplish this objective (as per Davies et al. 2011; Launchbaugh et al 2007). We also recommend that the BLM and USGS be required to consult with ecologists to minimize impacts to native perennial grasses consistent with the objectives and conservation measures of the grazing section.

Fire Operations:

Page 137: We support the direction in Alternative B that would require the BLM and USFS to prioritize fire suppression in GRSG PPH immediately after life and property, to conserve the habitat.

Page 137: We support the direction in Alternative B that would require the BLM and USFS to prioritize fire suppression where wildfires threaten GRSG PPH.

Emergency Stabilization and Rehabilitation:

Page 138: We support the direction in Alternative B that would require the BLM and USFS to prioritize native seed allocation for use in GRSG habitat in years when preferred native seed is in short supply. This believe may require reallocation of native seed from ESR (BLM) and/or Burn Area Emergency Rehabilitation (USFS) projects outside of GRSG PPH to those inside it. Use of native plant seeds for ESR or Burn Area Emergency Rehabilitation seedings is required based on availability, adaptation (site potential), and probability of success (as per Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (as per Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.

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Emergency Stabilization and Rehabilitation (continued):

Page 139: We support the direction in Alternative B that would require the BLM and USFS design post ESR and Burn Area Emergency Rehabilitation management in the ADH to ensure long term persistence of seeded or pre-burn native plants. We believe this will require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR and Burn Area Emergency Rehabilitation projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

Page 139: We support the direction in Alternative B that would require the BLM and USFS to consider potential changes in climate (as per Miller et al. 2011) when proposing restoration seedings in ADH when using native plants. Consider collection from the warmer component of the species' current range when selecting native species (as per Kramer and Havens 2009).

Habitat Restoration:

Page 139: We support the direction in Alternative B that would require the BLM and USFS to prioritize implementation of restoration projects in ADH based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (as per Meinke et al. 2009). We also recommend that they prioritize restoration treatments and monitoring in seasonal habitats in the ADH that are thought to be limiting GRSG distribution and/or abundance.

Page 140: We support the direction in Alternative B that would require the BLM and USFS to include GRSG habitat parameters in the GRSG PPH as defined by Connelly et al. (2000), Hagen et al. (2007) or if available, State GRSG Conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within GRSG PPH areas a high restoration priority.

Page 140: We support the direction in Alternative B that would require the BLM and USFS to require the use of native seeds for restoration in the GRSG PPH based on availability, adaption (ecological site potential, and probability of success (as per Richards et al. 1998). Where probability of success or adapted seed availability is low, nonnative seeds may be used as long as they support GRSG habitat objectives.

Page 141: We support the direction in Alternative B that would require the BLM and USFS to design post-restoration management to ensure long term persistence of seeded or pre-burn native plants in the GRSG PPH. We believe this will require temporary or long term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

Page 141: We support the direction in Alternative B that would require the BLM and USFS to consider potential changes in climate (as per Miller et al. 2011) when proposing restoration seedings in the GRSG PPH when using native plants. We also believe they should consider collection from the warmer component of the species' current range when selecting native species (as per Kramer and Havens 2009).

Page 141: We support the direction in Alternative B that would require the BLM and USFS to restore native (or desirable) plants in ADH and create landscape patterns which most benefit GRSG.

Page 142: We support the direction in Alternative B that would require the BLM and USFS to make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) the highest priority for restoration efforts in ADH.

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Habitat Restoration (continued):

Page 142: We support the direction in Alternative B that would require the BLM and USFS, in fire prone areas where sagebrush seed is required for GRSG habitat restoration in ADH, consider establishing seed harvest areas that are managed for seed production (as per Armstrong 2007) and are a priority for protection from outside disturbances.

Objective:

Page 143: We believe the objective stated on page 143 should be modified to include habitats that may sustain GRSG populations. We believe the objective should be modified as follows:
“Objective: Maintain and enhance populations and distribution of GRSG by protecting and improving sagebrush habitats and ecosystems that sustain *or have the potential to sustain* GRSG populations.”

Travel:

Page 143: We support the direction in Alternative B that would require the BLM and USFS to limit motorized travel on the GRSG PPH to existing roads, primitive roads, and trails at a minimum and to institute a travel management policy for all other areas of “*closed unless posted open.*”

Page 143: We support the direction in Alternative B that would require the BLM and USFS to evaluate the need for permanent or seasonal road or area closures in the GRSG PPH.

Page 143: We support the direction in Alternative B that would require the BLM and USFS to complete activity level travel plans within 5 years of the ROD. We also believe that the BLM and USFS should be required to, during activity level planning and where appropriate in the GRSG PPH, designate routes with current administrative/agency purpose or need to administrative access only.

Page 143: We support the direction in Alternative B that would require the BLM and USFS to limit route construction in the GRSG PPH to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety.

Page 144: We support the direction in Alternative B that would require the BLM and USFS to use existing roads or realignments as described above to access valid existing rights within the GRSG PPH that are not yet developed. We also believe that if valid existing rights cannot be accessed via existing roads, then the BLM and USFS must require that any new road must be constructed to the absolute minimum standard necessary, and that the surface disturbance must be added to the total disturbance in the priority area. We also believe that if that disturbance exceeds 3 percent for that area, then the BLM and USFS must evaluate and implement additional, effective mitigation necessary to offset the resulting loss of GRSG habitat.

Page 144: We support the direction in Alternative B that would require the BLM and USFS to not authorize any upgrading of existing routes in the GRSGS PPH that would change route category (road, primitive road, or trail) or capacity unless the upgrading would have minimal impact on GRSG habitat, is necessary for motorist safety, or eliminates the need to construct a new road.

Page 145: We support the direction in Alternative B that would require the BLM and USFS to conduct restoration of roads, primitive roads and trails not designated in travel management plans in GRSG PPH. This also must include primitive route/roads that were not designated in WSAs and within lands with wilderness characteristics that have been selected for protection in previous LUPs.

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Travel (continued):

Page 145: We support the direction in Alternative B that would require the BLM and USFS to use appropriate seed mixes in the GRSG PPH and consider the use of transplanted sagebrush when reseeding roads, primitive roads and trails.

Recreation:

Page 145: We support the direction in Alternative B that would require the BLM and USFS to only allow BLM SRPs and USFS Recreation SUAs in the GRSG PPH that have neutral or beneficial effects to PPH areas.

Lands and Realty:

Page 146: We support the direction in Alternative B that would require the BLM and USFS to make GRSG PPH areas exclusion areas for new BLM ROW or USFS SUA permits.

Page 146: We support the direction in Alternative B that, within designated ROW or SUA corridors in the GRSG PPH that are encumbered by existing ROW or SUA authorizations, the BLM and USFS must require that new ROWs or SUAs must be collocated only if the entire footprint of the proposed project (including construction and staging), can be completed within the existing disturbance associated with the authorized ROWs or SUAs.

Page 147: We support the direction in Alternative B that, subject to valid existing rights in the GRSG PPH and where new ROWs or SUAs associated with valid existing rights are required, the BLM and USFS must require new ROWs or SUAs to be collocated within existing ROWs or SUAs or where it best minimizes GRSG impacts. Use existing roads, or realignments as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing roads, then build any new road constructed to the absolute minimum standard necessary, and add the surface disturbance to the total disturbance in the priority area. If that disturbance exceeds 3 percent for that area, then evaluate and implement additional effective mitigation to offset the resulting loss of GRSG habitat.

Page 147: We support the direction in Alternative B that would require the BLM and USFS to evaluate and take advantage of opportunities to remove, bury, or modify existing power lines within GRSG PPH areas.

Page 148: We support the direction in Alternative B that would require the BLM and USFS to reclaim sites by removing these features and restoring the habitat in the GRSG PPH where existing leases, ROWs or SUAs have had some level of development (road, fence, well, etc.) and are no longer in use.

Page 148: We support the direction in Alternative B that would require the BLM and USFS to make PGH areas “avoidance areas” for new ROWs and/or SUAs.

Page 148: We support the direction in Alternative B, where new ROWs or SUAs are necessary in PGH, that would require the BLM and USFS to collocate new ROWs or SUAs within existing ROWs and/or SUAs where possible.

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Lands and Realty (continued):

Page 148 and 149: We support the direction in Alternative B that would require the BLM and USFS to retain public ownership of GRSG PPH. However, we concur with the direction on page 148 that the BLM and USFS may consider exceptions to the above direction where:

- 1) There is mixed ownership, and land exchanges would allow for additional or more contiguous federal ownership patterns within the GRSG PPH area;
- 2) Under GRSG PPH areas with minority federal ownership, include an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure, consideration should be given to pursuing a permanent conservation easement, and;
- 3) Where suitable conservation actions in the GRSG PPH cannot be achieved, seek to acquire state and private lands with intact subsurface mineral estate by donation, purchase or exchange in order to best conserve, enhance, or restore GRSG habitat.

Page 149: We support the direction in Alternative B that would require the BLM and USFS to propose lands within GRSG PPH areas for mineral withdrawal.

Page 149: We support the direction in Alternative B for the GRSG PPH that would require the BLM and USFS to not recommend withdrawal proposals not associated with mineral activity unless the land management is consistent with GRSG conservation measures. (For example; in a proposed withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures.)

Range Management:

Page 150: We support the direction in Alternative B that would require the BLM and USFS to incorporate GRSG habitat objectives and management considerations into all BLM and USFS grazing allotments within the GRSG PPH through Allotment Management Plans or permit renewals and/or USFS Annual Operating Instructions.

Page 150: We support the direction in Alternative B that would require the BLM and USFS to work cooperatively on integrated ranch planning within GRSG habitat so operations with needed/BLM and/or USFS allotments can be planned as single units within ADH.

Page 150: We support the direction in Alternative B that would require the BLM and USFS to prioritize completion of land health assessments (USFS may use other analyses) and processing grazing permits within GRSG PPH areas. Focus this process on allotments that have the best opportunities for conserving, enhancing or restoring habitat for GRSG. Utilize BLM Ecological Site Descriptions (USFS may use other methods) to conduct land health assessments to determine if standards of range-land health are being met.

Page 151: We support the direction in Alternative B that would require the BLM and USFS to conduct land health assessments in ADH that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives (Doherty et al. 2011). If local/state seasonal habitat objectives are not available, use GRSG habitat recommendations from Connelly et al. 2000a and Hagen et al. 2007.

Page 151: We support the direction in Alternative B that would require the BLM and USFS to develop specific objectives to conserve, enhance or restore GRSG PPH based on BLM Ecological Site Descriptions (USFS may use other methods) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets GRSG habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances GRSG habitat in the NEPA document prepared for the permit renewal (as per Doherty et al. 2011b; Williams et al. 2011).

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Range Management (continued):

Page 151: We support the direction in Alternative B that would require the BLM and USFS to manage for vegetation composition and structure in ADH consistent with ecological site potential and within the reference state to achieve GRSG seasonal habitat objectives.

Page 152: We support the direction in Alternative B that would require the BLM and USFS to, within ADH, implement management actions (grazing decisions, Annual Operating Instructions [USFS only], Allotment Management Plan/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal GRSG habitat requirements (Connelly et al. 2011). We also support direction in Alternative B that would require the BLM and USFS to consider singly, or in combination, changes in:

- 1) Season or timing of use;
- 2) Numbers of livestock (includes temporary non-use or livestock removal);
- 3) Distribution of livestock use;
- 4) Intensity of use; and
- 5) Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats) (as per Briske et al. 2011).

Page 152: We support the direction in Alternative B that would require the BLM and USFS, during drought periods, to prioritize evaluating effects of the drought in GRSG PPH areas relative to their needs for food and cover. Since there is a lag in vegetation recovery following drought (as per Thurow and Taylor 1999), we support direction in Alternative B that would require the BLM and USFS to ensure that post-drought management allows for vegetation recovery that meets GRSG needs in GRSG PPH areas.

Page 153: We support the direction in Alternative B that would require the BLM and USFS to manage riparian areas and wet meadows for proper functioning condition or other similar methodology (USFS only) within GRSG PPH.

Page 153: We support the direction in Alternative B that would require the BLM and USFS to manage wet meadows in ADH to maintain a component of perennial forbs with diverse species richness relative to site potential (i.e., reference state) to facilitate brood rearing. We also support direction in Alternative B that would require the BLM and USFS to conserve or enhance these wet meadow complexes to maintain or increase amount of edge and cover within that edge to minimize elevated mortality during the late brood rearing period (as per Hagen et al. 2007; Kolada et al. 2009; Atamian et al. 2010).

Page 153-154: We support the direction in Alternative B that would require the BLM and USFS to, where riparian areas and wet meadows in ADH meet proper functioning condition or meet standards using other similar methodology (USFS only), strive to attain reference state vegetation relative to the ecological site description. For example: Within GRSG PPH, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by GRSG in the hot season (summer) (as per Aldridge and Brigham 2002; Crawford et al. 2004; Hagen et al. 2007).

Page 154: We support the direction in Alternative B that would require the BLM and USFS to authorize new water development for diversion from spring or seep source only when GRSG PPH would benefit from the development. This includes developing new water sources for livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat.

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Range Management (continued):

Page 154: We support the direction in Alternative B that would require the BLM and USFS to analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within GRSG PPH. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to GRSG.

Page 155: We support the direction in Alternative B that would require the BLM and USFS to only allow treatments that conserve, enhance or restore GRSG habitat (this includes treatments that benefit livestock as part of an Allotment Management Plan/Conservation Plan to improve GRSG habitat).

Page 156: We support the direction in Alternative B that would require the BLM and USFS to evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG PPH to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an Allotment Management Plan/Conservation Plan or if they provide value in conserving or enhancing the rest of the PPH, then we no restoration would be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments (or other analyses [USFS only]) (as per Davies et al. 2011). For example: Some introduced grass seedings are an integral part of a livestock management plan and reduce grazing pressure in important sagebrush habitats or serve as a strategic fuels management area.

Page 157: We support the direction in Alternative B that would require the BLM and USFS to design any new structural range improvements and location of supplements (salt or protein blocks) in the GRSG PPH to conserve, enhance, or restore GRSG habitat through an improved grazing-management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.

Page 157: We support the direction in Alternative B that would require the BLM and USFS to use applicable PDFs or RDFs to mitigate potential impacts from West Nile virus when developing or modifying water developments in the GRSG PPH (as per: Clark et al. 2006; Doherty 2007; Walker et al. 2007b; Walker and Naugle 2011).

Page 158: We support the direction in Alternative B that would require the BLM and USFS to evaluate existing structural range improvements and location of supplements (salt or protein blocks) in the GRSG PPH to make sure they conserve, enhance or restore GRSG habitat.

Page 158: We support the direction in Alternative B that would require the BLM and USFS to reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas within GRSG PPH based on proximity to lek, lek size, and topography (as per: Christiansen 2009; Stevens 2011).

Page 158: We support the direction in Alternative B that would require the BLM and USFS to monitor for, and treat invasive species associated with existing range improvements (as per: Gelbard and Belnap 2003; Bergquist et al. 2007).

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Range Management (continued):

Page 159: We support the direction in Alternative B that would require the BLM and USFS to maintain retirement of grazing privileges in ADH as an option in priority GRSG areas when the current permittee is willing to retire grazing on all or part of an allotment. Analyze the adverse impacts of no livestock use on wildfire and invasive species threats (as per Crawford et al. 2004) in evaluating retirement proposals. Each planning effort by BLM and USFS will identify the specific allotment(s) where retirement of grazing privileges is potentially beneficial.

Wild Horse Management:

Page 159: We support the direction in Alternative B that would require the BLM and USFS to manage wild horse and burro population levels in the GRSG PPH within established appropriate management levels.

Page 159: We support the direction in Alternative B that would require the BLM and USFS to prioritize gathers in GRSG PPH, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.

Page 159: We support the direction in Alternative B that would require the BLM and USFS to, within PPH, develop or amend BLM HMA Plans and USFS Wild Horse Territory Plans to incorporate GRSG habitat objectives and management considerations for all BLM HMAs and USFS Wild Horse Territories.

Page 160: We support the direction in Alternative B that would require the BLM and USFS to, for all BLM HMAs and USFS Wild Horse Territories within GRSG PPH, prioritize the evaluation of all appropriate management levels based on indicators that address structure/condition/composition of vegetation and measurements specific to achieving GRSG habitat objectives.

Page 160: We support the direction in Alternative B that would require the BLM and USFS to coordinate with other resources (Range, Wildlife, and Riparian) to conduct land health assessments to determine existing structure/condition/composition of vegetation within all BLM HMAs and USFS Wild Horse Territories in ADH.

Page 160: We support the direction in Alternative B that would require the BLM and USFS to, when conducting NEPA analysis for wild horse and burro management activities, water developments or other rangeland improvements for wild horses in GRSG PPH, address the direct and indirect effects to GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock identified above in priority habitats.

Unleased Fluid Minerals:

Page 161: We support the direction in Alternative B that would require the BLM and USFS to close GRSG PPH areas to fluid mineral leasing. Upon expiration or termination of existing leases, do not accept nominations/expressions of interest for parcels within priority areas.

Page 161: We support the direction in Alternative B that would require the BLM and USFS to allow geophysical exploration within GRSG PPH areas to obtain information for existing federal fluid mineral leases or areas adjacent to state or fee lands within GRSG PPH areas. Allow geophysical operations only using helicopter-portable drilling, wheeled or tracked vehicles on existing roads, or other approved methods conducted in accordance with seasonal timing limitations and other restrictions that may apply. Geophysical exploration shall be subject to seasonal restrictions that preclude activities in breeding, nesting, brood-rearing, and winter habitats during their season of use by GRSG.

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Leased Fluid Minerals:

Page 162: We support the direction in Alternative B that would require the BLM and USFS to apply the following conservation measures through LUP implementation decisions (e.g., approval of an Application for Permit to Drill, and Sundry Notice) and upon completion of the environmental record of review (43 CFR 3162.5), include appropriate documentation of compliance with NEPA. In this process evaluate, among other things:

1. Whether the conservation measure is “reasonable” (43 CFR 3101.1-2) with the valid existing rights; and
2. Whether the action is in conformance with the approved LUP.

Page 162-165 (GRSG PPH COA-47-51b/c): We support the direction in Alternative B that would require the BLM and USFS to provide the following conservation measures as terms and conditions on an approved LUP:

The operator/lessee is required to conduct site-specific review of proposed projects prior to approval of Applications for Permit to drill. For leases within PPH, the following COAs would apply:

- Preclude new surface occupancy on existing leases within PPH.
- If the lease is entirely within PPH, do not allow surface occupancy of any portion within 4 miles around the lek and limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section.
- If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to one per section with no more than 3 percent surface disturbance in that section. Require any development to be placed at the most distal part of the lease from the lek, or depending on topography and other habitat aspects, in an area that is demonstrably less harmful to GRSG, such as based on topography or vegetation.

Page 166 (GRSG PPH COA-52b/d): We support the direction in Alternative B that would require the BLM and USFS to apply a seasonal restriction on exploratory drilling in the GRSG PPH to prohibit surface-disturbing activities during the lekking, nesting and early brood-rearing season.

Page 166: We support the direction in Alternative B that would require the BLM and USFS to closely examine the applicability of categorical exclusions in the GRSG PPH. If extraordinary circumstances review is applicable, the BLM/USFS should determine whether those circumstances exist.

Page 166 (GRSG PPH Notice to Lessees-54b/c): We support the direction in Alternative B that would require the BLM and USFS to complete Master Development Plans for leases within the GRSG PPH in lieu of single-well Applications for Permit to Drill processing for all but wildcat wells.
Page 166 (GRSG PPH COA-55b): We support the direction in Alternative B that would require the BLM and USFS to not allow proposed surface disturbance larger than 3 percent within the Colorado MZ for leases that are not yet developed in PPH.

Page 167: We support the direction in Alternative B that would require the BLM and USFS to conduct, when necessary, additional, effective mitigation in:

- 1) GRSG PPH areas, or-less preferably;
- 2) PGH (dependent upon the area-specific ability to increase GRSG populations).

Page 167: We support the direction in Alternative B that would require the BLM and USFS to conduct additional, effective mitigation in the GRSG PPH first within the same population area where the impact is realized, and if not possible then conduct mitigation within the same Colorado Management Zone as the impact, per 2006 WAFWA Strategy (p. 2-17).

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Leased Fluid Minerals (continued):

Page 167 (GRSG PPH Notice to Lessees-58b/c): We support the direction in Alternative B that would require the BLM and USFS to require unitization in the GRSG PPH when deemed necessary for proper development and operation of an area to minimize adverse impacts to GRSG.

Page 167: We support the direction in Alternative B that would require the BLM and USFS to identify areas in the GRSG PPH where acquisitions (including subsurface mineral rights) or conservation easements would benefit GRSG.

Page 168: We support the direction in Alternative B that would require, for future actions in ADH, the BLM and USFS to require a full reclamation bond specific to the site in accordance with 43 CFR 3104.2, 3104.3, and 3104.5. Ensure bonds are sufficient for costs relative to reclamation (as per: Connelly et al. 2000a; Hagen et al. 2007) that would result in full restoration of the lands to the condition it was found prior to disturbance. Base the reclamation costs on the assumption that contractors for the BLM and USFS will perform the work.

Page 168: We support the direction in Alternative B that would require, where applicable and technically feasible, that the BLM and USFS apply PDFs/RDFs as mandatory COAs within GRSG PPH.

Solid Minerals-Coal:

Page 169: We support the direction in Alternative B that would require the BLM and USFS to apply minimization of surface-disturbing or disruptive activities (including operations and maintenance) in ADH where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity level planning. Use additional effective mitigation to offset impacts as appropriate (determined by local options/needs).

Page 169: We support the direction in Alternative B that would require the BLM and USFS to find unsuitable in the GRSG PPH all surface mining of coal under the criteria set forth in 43 CFR 3461.5.

Page 170: We support the direction in Alternative B that would require, for sub-surface mining in the GRSG PPH, the BLM and USFS (PPH) to grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the GRSG PPH area. In GRSG PPH areas, place any new appurtenant facilities outside of PPH. Where new appurtenant facilities associated with the existing lease cannot be located outside the GRSG PPH area, collocate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the absolute minimum standard necessary.

Locatable Minerals:

Page 174: We support the direction in Alternative B that would require the BLM and USFS to recommend withdrawal from mineral entry in the GRSG PPH based on risk to the GRSG and its habitat from conflicting locatable mineral potential and development.

Page 174: We support the direction in Alternative B that would require the BLM and USFS to make any existing claims within the withdrawal area subject to validity exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal.

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Locatable Minerals (continued):

Page 175: We support the direction in Alternative B that would require, in plans of operations required prior to any proposed surface disturbing activities, that the BLM and USFS include the following within the GRSG PPH:

- Additional effective mitigation in perpetuity for conservation (in accordance with existing policy, BLM Washington Office Instruction Memorandum 2008-204). For example, purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government.
- Consider seasonal restrictions if deemed effective.

Page 175: We support the direction in Alternative B that would require, where applicable to prevent unnecessary or undue degradation, that the BLM and USFS apply PDFs/RDFs/SDFs as mandatory COAs.

Nonenergy Leasable Materials:

Page 175: We support the direction in Alternative B that would require the BLM and USFS to close the GRSG PPH to nonenergy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine.

Page 176: We support the direction in Alternative B that would require, for existing nonenergy leasable mineral leases, in addition to the solid minerals PDFs/RDFs, that the BLM and USFS follow the same PDFs/RDFs applied to Fluid Minerals when wells are used for solution mining.

Salable Mineral Materials:

Page 176: We support the direction in Alternative B that would require the BLM and USFS to close the GRSG PPH to mineral material sales.

Page 177: We support the direction in Alternative B that would require the BLM and USFS to restore salable mineral pits in the GRSG PPH no longer in use to meet GRSG habitat conservation objectives.

Mineral Split Estate:

Page 177: We support the direction in Alternative B that would require, where the federal government owns the mineral estate and the surface is in nonfederal ownership in the GRSG PPH, that the BLM and USFS apply the conservation measures applied to public lands.

Page 177: We support the direction in Alternative B that would require, where the federal government owns the surface, and the mineral estate is in non-federal ownership within the GRSG PPH, that the BLM and USFS apply appropriate Fluid Mineral PDFs to surface development.

Fuels Management:

Page 177: We support the direction in Alternative B that would require the BLM and USFS PPH) to not authorize the reduction of the sagebrush canopy cover in the GRSG PPH to less than 15 percent (as per: Connelly et al. 2000a; Hagen et al. 2007) unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of GRSG PPH and conserve habitat quality for the species. Closely evaluate the benefits of the fuel breaks against the additional loss of sagebrush cover in the future NEPA process.

Page 178: We support the direction in Alternative B that would require the BLM and USFS to apply appropriate seasonal restrictions for implementing fuels management treatments in the GRSG PPH according to the type of seasonal habitats present in a priority area.

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Fuels Management (continued):

Page 178: We support the direction in Alternative B that would require the BLM and USFS to allow no treatments in known winter range within the GRSG PPH unless the treatments are designed to strategically reduce wildfire risk around or in the winter range and will maintain winter range habitat quality.

Page 179: We support the direction in Alternative B that would require that the BLM and USFS do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species) (as per: Connelly et al. 2000a; Hagen et al. 2007; Beck et al. 2009). However, if as a last resort and after all other treatment opportunities have been explored, and site specific variables allow, the use of prescribed fire for fuels breaks that would disrupt fuel continuity or enhance land health could be considered where cheatgrass is a very minor component in the understory (as per Brown 1982).

Page 179: We support the direction in Alternative B that would require the BLM and USFS to monitor and control invasive vegetation in the GRSG PPH, post-treatment.

Page 179: We support the direction in Alternative B that would require the BLM and USFS to rest treated areas within the GRSG PPH from grazing for two full growing seasons unless vegetation recovery dictates otherwise (as per Wyoming Game and Fish Department 2011).

Page 179: We support the direction in Alternative B that would require the BLM and USFS to require use of native plant seeds for fuels management treatment within the GRSG PPH based on availability, adaptation (site potential), probability for success (as per Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat objectives (as per Pyke 2011).

Page 180: We support the direction in Alternative B that would require the BLM and USFS to design post fuels management within the GRSG PPH to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

Page 180: We support the direction in Alternative B that would require the BLM and USFS to design fuels management projects within the GRSG PPH to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more linear versus block design (as per Launchbaugh et al. 2007).

Page 181: We support the direction in Alternative B that would require the BLM and USFS to during fuels management project design, consider the utility of using livestock to strategically reduce fine fuels (as per Diamond et al. 2009), and implement grazing management that will accomplish this objective (as per: Davies et al. 2011; Launchbaugh et al. 2007). Consult with ecologists to minimize impacts to native perennial grasses, consistent with the objectives and conservation measures of the grazing section.

Fire Operations:

Page 181: We support the direction in Alternative B that would require, in GRSG PPH areas, that the BLM and USFS prioritize suppression, immediately after life and property, to conserve the habitat.

Page 181: We support the direction in Alternative B that would require, within the PGH, that the BLM and USFS prioritize suppression where wildfires threaten PPH.

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Emergency Stabilization and Rehabilitation:

Page 182: We support the direction in Alternative B that would require the BLM and USFS to prioritize native seed allocation for use in GRSG habitat within ADH in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR (BLM) and/or Burn Area Emergency Rehabilitation (USFS) projects outside of GRSG PPH to those inside it. Use of native plant seeds for ESR or Burn Area Emergency Rehabilitation seedings is required based on availability, adaptation (site potential), and probability of success (Richards et al. 1998). Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (as per Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.

Page 182: We support the direction in Alternative B that would require the BLM and USFS to design post-fire ESR and Burn Area Emergency Rehabilitation management within ADH to ensure long term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR and Burn Area Emergency Rehabilitation projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

Page 183: We support the direction in Alternative B that would require the BLM and USFS to consider potential changes in climate (as per Miller et al. 2011) when proposing restoration seedings when using native plants within ADH. Consider collection from the warmer component of the species' current range when selecting native species (as per Kramer and Havens 2009).

Habitat Restoration:

Page 184: We support the direction in Alternative B that would require the BLM and USFS to prioritize implementation of restoration projects within ADG based on environmental variables that improve chances for project success in areas most likely to benefit GRSG (as per Meinke et al. 2009). Prioritize restoration treatments and monitoring in seasonal habitats that are thought to be limiting GRSG distribution and/or abundance.

Page 184: We support the direction in Alternative B that would require the BLM and USFS to include GRSG habitat parameters as defined by Connelly et al. (2000b), Hagen et al. (2007) or if available, State GRSG Conservation plans and appropriate local information in habitat restoration objectives within the GRSG PPH. Make meeting these objectives within GRSG PPH areas a high restoration priority.

Page 184: We support the direction in Alternative B that would require the BLM and USFS to require the use of native seeds for restoration within the GRSG PPH based on availability, adaption (ecological site potential, and probability of success (as per Richards et al. 1998). Where probability of success or adapted seed availability is low, nonnative seeds may be used as long as they support GRSG habitat objectives.

Page 185: We support the direction in Alternative B that would require the BLM and USFS to design post restoration management within the GRSG PPH to ensure long term persistence of seeded or pre-burn native plants. This *probably will* require temporary or long term changes in livestock grazing, wild horse and burro, and travel management, etc., to achieve and maintain the desired condition of ESR projects to benefit GRSG (as per Eiswerth and Shonkwiler 2006).

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Habitat Restoration (continued):

Page 185: We support the direction in Alternative B that would require the BLM and USFS to consider potential changes in climate (as per Miller et al. 2011) when proposing restoration seedings within the GRSG PPH when using native plants. Consider collection from the warmer component of the species' current range when selecting native species (as per Kramer and Havens 2009).

Page 185: We support the direction in Alternative B that would require the BLM and USFS to restore native (or desirable) plants and create landscape patterns which most benefit GRSG within ADH.

Page 186: We support the direction in Alternative B that would require the BLM and USFS to make reestablishment of sagebrush and desirable understory plant cover (relative to ecological site potential) the highest priority for restoration efforts within ADH.

Page 186: We support the direction in Alternative B that would require, in fire prone areas where sagebrush seed is required for GRSG habitat restoration within ADH, that the BLM and USFS consider establishing seed harvest areas that are managed for seed production (as per Armstrong 2007) and are a priority for protection from outside disturbances.

Areas of Critical Environmental Concern (ACECs)/Zoological Areas:

Page 187: We recommend that support the direction in Alternative C that would require the BLM to designate all GRSG PPH as the Sage-grouse Habitat ACEC/Zoological Area.

It is important that the BLM/USFS take all the mentioned factors into consideration as you work to develop a science-based alternative in the Final RMP/EIS. It is also important that coordination between the BLM/USFS and other resource management agencies, including the Colorado Parks and Wildlife, is developed so that consistent measures are implemented for the continued sustainability of fish and wildlife, hunting and angling opportunities, and productivity of habitats.

We appreciate this opportunity to comment on the Draft Northwest Colorado Greater Sage-Grouse RMP Amendment and Draft EIS, and again commend you on efforts to develop this EIS. We also appreciate your consideration and incorporation of our comments into the final alternative. The North American Grouse Partnership's intent is to work toward the conservation grouse and their habitats and associated public use of these important resources while responsibly developing our Nation's energy resources. We again stress the importance of the greater sage-grouse habitat and management and the potential impacts if a listing of this species under ESA were to occur. We also stress the use of emerging, best available science on grouse and coordination with Colorado Parks and Wildlife.

Finally, we offer the services and professional advice of NAGP as you finalize your management strategy for greater sage-grouse. We maintain a Council of (grouse) Scientist within the ranks of our partnership to provide scientific and technical guidance to our Board of Directors and Staff on measures and decisions to restore and protect grouse and grouse habitats and to assure the scientific credibility of our organization. Please feel free to call on us at any time regarding questions related to grouse and their management.

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Sincerely,

A handwritten signature in black ink that reads "Terry Z. Riley". The signature is written in a cursive style with a large, prominent 'T' and 'R'.

Terry Z. Riley, PhD
North American Grouse Partnership

***“Our mission is to promote the conservation of grouse and the habitats
necessary for their survival and reproduction.”***