



March 13, 2015

Neil Kornze
Director (210)
Attn: Protest Coordinator
PO Box 71383
Washington, DC 20024-1383

Via U.S. Mail with advance copy sent via email to protest@blm.gov

Dear Director Kornze:

Pursuant to 43 CFR § 1610.5-2, WildEarth Guardians protests the Bi-State Distinct Population Segment RMP Amendment for the Carson City and Tonopah Field Office Resource Management Plans. Please note contact information on this letterhead. This protest is filed pursuant to issues raised in WildEarth Guardians comments on the original Draft EIS for this plan amendment, filed December 27, 2013, and comments on the Revised Draft EIS filed by WildEarth Guardians on October 9, 2014. We believe that the issues raised in this Protest can readily be addressed simply by adopting direction contained in other alternatives, in the absence of major shifts in policy from the proposed plan amendment.

The Bi-State Distinct Population Segment (“DPS”) of greater sage grouse is currently a Candidate for listing under the Endangered Species Act, with a listing decision expected as early as April 2015. The stated goal of this plan amendment is to address the ‘inadequacy of regulatory mechanisms’ highlighted by the U.S. Fish and Wildlife Service (“Service”) in its proposed listing rule. Populations in the Bi-State DPS are small and isolated from each other, and in danger of extirpation. Bi-State Biological Assessment/Biological Evaluation (“BA/BE”) at 62-63. Attachment 1. Strong measures will therefore be needed to demonstrate that the threats noted by the Service have been adequately addressed.

The Final EIS (“FEIS”) states that the Proposed Alternative as its final amendment to the RMP(s) in question. FEIS at 13. However, Table 2-5 lists a column “BLM Proposed” with standards drawn from multiple alternatives. We assume that this “BLM Proposed” column constitutes the agency’s proposed RMP amendment, and our protest will therefore focus on this package of planning guidance.

Some number measures included in the selected plan will benefit sage grouse, are in accord with the best available science, and have certainty of implementation. These fully meet the criteria as adequate regulatory mechanisms, and we particularly applaud BLM’s adoption of the following:

B-AR-S-04 Protection of winter habitats from special recreation permit events

C-AR-S-04 Protecting sage grouse habitats from new recreation facilities

BLM-03 Sage grouse habitats are exclusion areas for wind farms

BLM-04 Sage grouse habitats are exclusion areas for solar projects

B-LUSU-S-03 Retain lands in federal ownership unless disposal is a net benefit to grouse

B-LUSU-S-05 Acquire lands to protect or enhance habitat

BLM-07 No new communication sites in sage grouse habitat

B-Wild-S-01 Any vegetation treatment must maintain, improve, or restore grouse habitat

B-RI-S-01 Remove fences that are negative impacting grouse and their habitats

C-LUSU-S-04 Remove range improvements taller than 8 feet in grouse habitat

B-Weed-S-02 No use of herbicides/pesticides during critical disturbance periods,; use lowest-toxicity alternative

BLM-11 Close grouse habitat to non-energy leasable minerals

BLM-12 Close grouse habitat to mineral material sales

We appreciate these examples of providing legally binding, science-based sage grouse protection measures. Other measures proposed for adoption by BLM miss the mark. The issues being protested include:

1. Failure to respond to public comments as required by the National Environmental Policy Act.
2. The proposed plan results in undue degradation to greater sage grouse (a BLM Sensitive Species) and their habitats, in violation of the Federal Lands Policy and Management Act (“FLPMA”) and BLM Sensitive Species Manual.
3. The proposed plan fails to meet the Purpose and Need for the EIS, which is to establish adequate regulatory mechanisms to protect sage grouse and obviate the need for listing the species under the Endangered Species Act.
4. The proposed plan in some respects fails to meet National Environmental Policy Act (“NEPA”) scientific integrity standards. Significant portions of the proposed plan are not in accord with the best available science on sage grouse conservation as delineated by BLM’s own experts, rendering the decision arbitrary and capricious and an abuse of discretion under the Administrative Procedures Act (“APA”).
5. For several parts of the plan amendment EIS, the agencies have failed to meet NEPA’s baseline information and hard look requirements.

We incorporate by reference into this Protest all attachments to the comments of WildEarth Guardians on the original Draft EIS (“DEIS comments”) and the Revised Draft EIS (“RDEIS comments”) as well as the comments themselves. It is apparent that some relatively minor adjustments (see ‘relief requested’ sections in this Protest) to the proposed plan amendment would bring these jurisdictions into alignment with the best available science and achieve certainty of implementation, thereby providing legally adequate and scientifically defensible sage grouse protections for the portion of the Bi-State DPS of greater sage grouse covered by these plans.

Statement of Interest: WildEarth Guardians is a nonprofit conservation organization that works to protect wildlife, wild places, wild rivers, and the health of the American West. Our members, numbering 66,300 nationwide, are deeply concerned with the dire state of Bi-State sage grouse populations, and use its habitats for recreation, wildlife viewing, and nature study. Our organization has a vested interest in sound, sustainable ecosystem management that provides the greater sage grouse, as well as hundreds of other species of native plants and wildlife, the habitat needed for survival.

STATEMENT OF REASONS

Failure to Respond to Public Comments

Under the National Environmental Policy Act, agencies have a responsibility to respond to comments submitted by the public or cooperating agencies. 40 C.F.R. § 1503.4(a). Importantly, while agencies must attach comments considered “substantive” to the EIS (40 C.F.R. § 1503.4(b)), a comment need not be substantive to trigger the agency’s response requirement.

Guardians raised the importance of response to public comments as an issue (DEIS comments at unnumbered 8), and in response, the agencies issued a Revised Draft EIS with a new alternative that addressed many of our concerns. Attachment 3. On October 9, 2014, WildEarth Guardians and other conservation groups submitted comments on the Bi-State RMP Amendment RDEIS (Attachment 3), advanced by the Humboldt-Toiyabe National Forest and Bureau of Land Management Carson City and Tonopah Field Offices (the “federal agencies”) pursuant to the open comment period on that NEPA document. These comments were submitted via email to comments-intermtn-humboldt-toiyabe@fs.fed.us, pursuant to instructions on the Forest Service webpage hosting the project NEPA documents. See Attachment 4.

Federal agencies did not respond to issues included in these comments. See RDEIS at Appendix C. In a telephone conversation of February 9, 2015 with James Winfrey, Humboldt-Toiyabe National Forest planner, it was disclosed that the federal agencies had not checked the email account associated with this address prior to February 9, 2015, that the comments of WildEarth Guardians and others were indeed received and timely filed, but had not been noticed or read until that very day. See Attachment 5. Significant issues raised in these comments (e.g., problems with off-road special use permitting) were not addressed in the agencies’ responses to the comments of others. We have no reason to believe that the agencies’ failure to check its email

and receive the comments of WildEarth Guardians in time to respond was intentional, but this error on the agency's part nonetheless violates federal law. This oversight by the lead agency led to the violation of NEPA's response to public comments requirement in the FEIS.

Relief Sought on This Issue: To the extent that the substantive issues raised in the October 9, 2015 comments of WildEarth Guardians et al. can be successfully resolved in the Record of Decisions for this RDEIS, we will consider the response to public comments requirement of NEPA successfully fulfilled by the agencies.

Failure of Proposed RMP Amendment to meet the Purpose and Need for this EIS

The Purpose and Need for this Revised Draft EIS is as follows:

The USFWS concluded that existing regulatory mechanisms to protect sage grouse and their habitats in the bi-state area "...afford sufficient discretion to the decision makers as to render them inadequate to ameliorate the threats to the Bi-state Distinct Population Segment." The major threats identified by the USFWS in regards to actions authorized on NFS lands and BLM public lands is habitat modification, including modification from infrastructure (fences, powerlines, and roads), recreation, mining, energy development, grazing, fire, invasive species, noxious weeds, pinyon-juniper encroachment, and climate change. As described below in the "Purpose and Need for Action" section, the Forest Service and BLM proposed action is to address the USFWS finding about their regulatory mechanisms.

FEIS at 1. This is clarified as follows:

The purpose of the proposed amendment is to conserve, enhance, and/or restore sagebrush and associated habitats to provide for the long-term viability of the bi-state DPS. This action is needed to address the now "proposed threatened" Endangered Species Act listing, and to support bi-state DPS population management objectives within the states of Nevada and California.

FEIS at 9. In order to address the "inadequacy of regulatory mechanisms" highlighted in the Bi-State DPS Proposed Rule, the federal agencies must apply sage grouse protections that in every respect satisfy the certainty of implementation and science-based effectiveness requirements employed by the U.S. Fish and Wildlife Service to judge regulatory mechanisms under that agency's Policy on Effective Conservation Efforts ("PECE").

Pursuant to NEPA, any alternative selected for implementation must meet the Purpose and Need for the EIS. As discussed in detail in the sections that follow, many of the regulatory mechanisms proposed for implementation still do not meet the legal standards to satisfy U.S. Fish and Wildlife Service legal obligations under the Endangered Species Act.

The agencies make the following assertion regarding the cumulative effect of adopting Alternative B or C:

There would be beneficial effects to bi-state DPS as a result of implementing either alternative B or C. Therefore, the Bi-state Sage-grouse Forest Plan Amendment may affect individuals, but is not likely to contribute to the need for Federal listing or result in loss of viability for the bi-state DPS in the planning area.

FEIS at 97. This statement indicates a failure to take the legally required “hard look” at impacts of permitted activities under these alternatives on greater sage grouse. The specific, science-based deficiencies of proposed management prescriptions are outlined below. Each time the BLM approves a conservation measure that is insufficient to prevent significant impacts to sage grouse based on the best available science, the agency creates certainty that when the type of activity in question is approved under the RMP amendment prescriptions, significant negative impacts to sage grouse lek populations (not just individuals) is likely to occur.

The Purpose and Need of this EIS ties directly to the agency’s Sensitive Species policy (as outlined below), which likewise calls for the prevention of listing the species. Specific individual inconsistencies between measures in the proposed plan and the Purpose and Need are outlined below.

Failure to apply BLM Sensitive Species policy

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.” BLM Manual 6840.02. 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.” BLM Manual 6840.04(E)(6). 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.” BLM Manual 6840, Glossary 2. 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.

BLM Handbook 6840.2(B). 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.” BLM Manual 6840.06, emphasis added.

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 condition of the species habitat.” BLM Manual 6840.2(C).

The BLM is responsible for “Ensuring that BLM activities affecting Bureau sensitive species are carried out in a way that is consistent with its objectives for managing those species and their habitats at the appropriate spatial scale.” BLM Manual 6840.2(C)(2).

The “inadequacy of regulatory mechanisms” found by the Service in regard to BLM land-use planning direction for sage grouse is indicative that the agency has been failing to implement its Sensitive Species policy. In order to remedy this inadequacy, BLM must provide a plan amendment that meets the certainty of implementation and science-based effectiveness in the Service’s PECE policy. 68 Fed. Reg. 15113, 15113. Only by remedying this deficiency can BLM meet Sensitive Species obligations, and thereby avoid unnecessary or undue degradation to sage grouse habitat. In several respects, as discussed below, RMP amendment proposed direction fails in important ways to meet these requirements. Failures to provide adequate conservation measures for the greater sage grouse, resulting in management that harms this BLM Sensitive Species and leads to its listing in violation of the Sensitive Species Manual, are outlined specifically in the sections of this Protest that follow.

Certain plan provisions permit “unnecessary” or “undue” degradation to sage grouse habitat

Pursuant to FLPMA, must manage public lands in a manner that does not cause either “undue” or “unnecessary” degradation. 43 U.S.C. § 1732(b). In this case, degradation that leads to a need to list the Bi-State DPS under the ESA is inconsistent with the Purpose and Need and violates the agency’s Sensitive Species policy, and therefore would be considered “undue.” To the extent that such degradation would have been avoided given the availability of other reasonable alternatives that would prevent this degradation, it also would be considered “unnecessary.” The RMP amendment leads to a violation of FLPMA if permitted actions result in degradation that is either “unnecessary” or “undue.”

BLM’s Unnecessary or Undue Degradation (“UUD”) responsibilities are intertwined with the agency’s NEPA duties. Under NEPA, BLM must identify impacts a proposed action will have to the environment; married to this obligation are the duties imposed by FLPMA to identify the thresholds of acceptable impact and then determine whether the impacts are unnecessary or undue. If the impacts are determined to be necessary and unavoidable, BLM must then analyze whether the impacts are undue. NEPA then reasserts itself in the process by mandating that alternatives be considered to ensure that unnecessary or undue actions are not undertaken and to ensure that methodologies used to prevent UUD are supported and verified. *Ecology Center, Inc. v. Austin*, 430 F.3d 1057, 1065 (9th Cir. 2005).

In the context of hard-rock mining, “[a] reasonable interpretation of the word ‘unnecessary’ is that which is not necessary for mining. ‘Undue’ is that which is excessive, improper, immoderate, or unwarranted.” *Utah v. Andrus*, 486 F.Supp.995, 1005 n.13 (Dist. Utah 1979). FLPMA requires that,

the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; . . . that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;

43 U.S.C. § 1701(a)(8). At the same time, FLPMA directs that these uses be balanced with mineral extraction by requiring that,

the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals . . . from the public lands including implementation of the Mining and Minerals Policy Act of 1970 . . .

43 U.S.C. § 1701(a)(12). The key here is for BLM to balance these opposing needs.

According to the original mining regulations, “Unnecessary or undue degradation means impacts greater than those that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices, *including use of the best reasonably available technology.*” 43 C.F.R. § 3802.0-5(1) (emphasis added). In the Bi-State Plan Amendment EIS, to the extent that BLM has failed to apply in its proposed plan the recommended sage grouse protections presented to it by its own experts (the BLM National Technical Team), and development approved under the resulting plan will result in unnecessary and/or undue degradation of sage grouse habitats and result in sage grouse population declines in these areas, it undermines the effectiveness of the RMP amendment as an adequate regulatory mechanism in the context of the decision.

Specific conservation measures that fail to prevent significant impacts to sage grouse and their habitats (and thereby result in unnecessary and/or undue degradation pursuant to FLPMA) are outlined in detail in the sections of this Protest that follow.

Failure to meet NEPA scientific integrity requirements

BLM must evaluate the effectiveness of the conservation measures used to minimize adverse impacts to wildlife and sensitive species with the best available science. “The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” 40 C.F.R. § 1500.1(b) (2009). “For this reason, agencies are under an affirmative mandate to ‘insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements[,] identify any methodologies used and . . . make explicit reference by footnote to the scientific and other sources relied upon for conclusions[.]’” *Envtl. Def. v. U.S. Army Corps of Eng’rs*, 515 F. Supp. 2d 69, 78 (D.D.C. 2007) (citing 40 C.F.R. § 1502.24 (2009)).

The BLM's National Technical Team (2011) was convened to review the best available science and make recommendations that fully address the inadequacy of regulatory mechanisms for greater sage grouse:

To ensure BLM management actions are effective and based on the best available science, the National Policy Team created a National Technical Team (NTT) in August of 2011. The BLM's objective for chartering this planning strategy effort was to develop new or revised regulatory mechanisms, through Resource Management Plans (RMPs), to conserve and restore the greater sage-grouse and its habitat on BLM-administered lands on a range-wide basis over the long term.

NTT (2011) at 4. Accordingly, "This document provides the latest science and best biological judgment to assist in making management decisions." NTT (2011) at 5. This document represents the BLM's expert opinion, and although policy documents state that the agency is not bound to adopt these measures in its RMP amendments, in cases where the agency offers divergent conservation measures, it must supply a scientifically supported justification for choosing a different path, which is arbitrary and capricious and an abuse of discretion under the Administrative Procedures Act ("APA"). In many cases, the agency has elected to substitute alternative conservation measures to the NTT recommendations without providing sufficient science-based justification. The result is twofold: A failure to uphold NEPA's scientific integrity requirements, and plan amendments that contain inadequate regulatory mechanisms.

Specific measures proposed for implementation in the proposed RMP amendment that are in conflict with the best available science and/or the National Technical Team report are described in detail in the sections that follow.

Failure to meet NEPA hard look requirements

Section 102(2)(C) of NEPA requires that the responsible federal agency prepare a detailed statement on the environmental impacts of the proposed action and any adverse environmental effects which cannot be avoided should the proposal be implemented. The regulations implementing NEPA provide that "[t]o determine the scope of environmental impact statements, agencies shall consider . . . (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. . . . (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. . . . [and] (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." 40 C.F.R. § 1508.25.

NEPA's mandate is that all federal agencies analyze the likely effects of their actions, as well as address the potential alternatives. "Agencies are to perform this hard look *before* committing themselves irretrievably to a given course of action so that the action can be shaped to account for environmental values. NEPA § 102(2)(c) requires the agency to consider numerous factors [including] irreversible commitments of resources called for by the proposal." *Sierra Club v.*

Hodel, 848 F.2d 1068 (10th Cir. 1988) (rev'd on other grounds)(emphasis added). NEPA provides procedural protections for resources at risk by requiring analysis of impacts *before* substantial decisions are made that set development in motion. *See Conservation Law Foundation v. Watt*, 560 F. Supp. 561, 581 (D. Mass. 1983), *aff'd by Massachusetts v. Watt*, 716 F. 2d 946 (1st Cir. 1983).

In several cases, the agencies' analysis of impacts to greater sage grouse or their habitats resulting from proposed RMP amendment provisions fails to meet the 'hard look' standards of NEPA as outlined above. These examples are specifically described in the sections of this Protest that follow.

SPECIFIC PROBLEMS WITH THE PROPOSED RMP AMENDMENT

Implementation of Grass Height and Other Grazing Management Prescriptions

In our Draft EIS comments, Guardians provided a literature review supporting requirements to maintain a 7-inch residual grass height in breeding, nesting, and brood-rearing habitats. DEIS comments at unnumbered 11, RDEIS comments at 14. The agencies themselves note, "Abundant cover of tall perennial grasses and other residual vegetation cover, in conjunction with big sagebrush, are critical for high nesting success by sage grouse (Gregg et al. 1994; Sveum et al. 1998)." FEIS at 106. The agencies further note, "Researchers studying bi-state DPS (Table 2-1) recommend a grass/forb height of 7 inches to adequately provide protection and concealment during the nesting and brood-rearing period." FEIS at 210. This finding is buttressed by the Forest Service analysis, to wit:

management direction prescribes maintaining residual cover of herbaceous vegetation at no less than 7 inch stubble height during breeding/nesting season (March 1-June 30) within 3 miles of active lek sites. Grass/forb height of 7 inches is consistent with nesting habitat condition described by USFWS (USDI Fish and Wildlife Service 2013c); however, USFWS also identifies that these condition apply to brood-rearing habitat as well.

BA/BE at 83.

Table 2-1 identifies "desired habitat conditions" for the RMP revision. FEIS at 15. In Nesting (Breeding) Habitat, perennial grass height "provides overhead and lateral concealment from predators (Connelly et al. 2000; Stiver et al. [in press]; Hagen et al. 2007)." *Id.* For Brood-Rearing/Summer Habitat, the goal is "Grass/forb height is greater than 7 inches." FEIS at 16. Importantly, both Connelly et al. (2000) and Hagen et al. (2007) specify a 7-inch residual grass height to provide hiding cover across all of these habitat types. The 7-inch grass/forb height standard is measurable and explicit, providing an adequate regulatory mechanism if rigorously applied. For breeding/nesting habitats, the desired condition objective implies a 7-inch grass height standard by referring to scientific studies that explicitly call for this standard, but need to

spell out the 7-inch grass height explicitly in order to satisfy adequate regulatory mechanism standards.

It is important to note that BLM's adoption of B-RU-S-02 would appear to require that vegetation communities maintain or move toward the conditions in Table 2-6. FEIS at 30. Table 2-6 applies a 4-6 inch stubble height standard (FEIS at 46), which has zero basis in science, instead of the 7-inch standard which is based in science and directs desired conditions presented in Table 2-1. The agencies provide absolutely no scientific support for the precept that 4 to 6 inches of residual grass height is adequate to provide hiding cover for sage grouse (a NEPA hard look and scientific integrity issue), and it is intuitively obvious that 4-inch high grass would provide cover only to the spindly legs of a bird the size of a grouse. The adoption of B-RU-S-01 also limits this implementation to within 3 miles of leks and between March 1 and June 30. FEIS at 30. That leaves nesting habitats between 3 and 4 miles from the lek exposed to excessive grazing.

In addition, BLM does not implement Annual Operating Instructions, and thus has made no commitment implement this direction in a timely fashion. We raised this issue in comments. RDEIS comments at 13. Thus, plan direction currently provides no certainty of implementation. If the agency waits until permit renewal (which for some permits could be more than 9 years away), there is no guarantee that even then the new grazing management would be implemented, because under the Grazing Improvement Act, permits would automatically be renewed at existing levels and under the old direction if funding and staff capacity are unavailable to perform NEPA analysis on the permit renewal. This creates uncertainty that the grazing management direction in the RMP will ever be implemented.

Finally, under B-Weed-G-01, the proposed plan would allow livestock grazing to control cheatgrass and other weeds. FEIS at 33. However, the agencies themselves state that for cheatgrass, grazing cannot be used to address weed infestations according to the best available science:

Recent research suggests that cattle grazing, even at the highest intensities, does not reduce cheatgrass cover. Increasing intensity of cattle grazing results in a decrease in the remnant native perennial grasses and biological soil crusts which promotes an increase in the magnitude of cheatgrass dominance (Reisner 2010; Reisner et al. 2013).

FEIS at 110. The approval of a guideline that is directly contradictory to what the best available science recognizes as effective is arbitrary and capricious, and is likely to add additional grazing impacts (and even weed spread) to already degraded areas resulting in both unnecessary and undue degradation to BLM lands.

Relief requested: Standard B-RU-S-01 should be adjusted so that it requires achievement of or movement toward the Desired Future Conditions for vegetation contained in Table 2-1 (rather than Table 2-5), and clarifying instructions must be added to the RMP amendment stating that grazing prescriptions will apply immediately across all grazing permits, rather than awaiting permit renewal to implement grazing management. This is critical to meet the "certainty of implementation" prong of the PECE policy. Eliminate B-Weed-G-01.

New Roads

Roads pose an important threat to sage grouse by fragmenting their habitat and displacing them from adjacent areas. RDEIS comments at 22. Wisdom et al. (2011) found that extirpated range of sage grouse was closer to highways (mean = 3.1 miles) than occupied range for sage grouse, and Holloran (2005) found that main haul roads (defined as gravel roads accessing 5 or more natural gas wells) had a significant negative effect up to 1.9 miles from the road on sage grouse lek attendance compared to unaffected leks (regardless of whether the road was visible from the lek or not), and that increased traffic led to increased impact. Braun (1986) also found a significant negative effect of mining haul roads on sage grouse leks within 1.9 miles of the road. At minimum, all roads need to be sited at least 0.8 miles from lekking and nesting habitat, and main haul roads should be sited at least 2 miles away. At minimum, all roads need to be sited at least 0.8 miles from lekking and nesting habitat. Braun (1986) and Holloran (2005) demonstrated that main haul roads sited within 2 miles of sage grouse leks resulted in significant declines of breeding populations at the leks. In addition, Knick et al. (2013) found that the vast majority of active sage grouse leks were within habitats characterized by less than 3% cumulative surface disturbance (including, in significant measure, roads).

The BLM proposal calls for “same as B-AR-S-02” in regard to authorizing new roads “only when necessary for public safety” and other considerations. FEIS at 21. The corresponding Alternative B (Modified) prescription for this management action is B-AR-G-02, which differs from the BLM Proposed in being a discretionary guideline (“G”), which corresponds to a BLM ‘best management practice,’ rather than a mandatory standard (“S”), which corresponds to a BLM ‘action.’ The “S” (action approach) creates regulatory certainty, while the “G” (BMP approach) undermines the ‘certainty of implementation’ of this management prescription. The presentation of information in the FEIS creates ambiguity in the BLM’s intended RMP prescriptions. It is likewise critical that BLM preclude the construction of roads that contribute to an exceedance of the cumulative 3% surface disturbance threshold, which leads to lek abandonment.

Relief requested: Please clarify that plan applies this prescription as a mandatory action rather than a best management practice in the RMP amendment. This appears to be a mere clarification of an action the agency intends to implement. Specific direction is needed to limit road construction below 3% cumulative surface disturbance per square mile. Both of these concerns are remedied by adopting C-AR-S-02.

Inappropriate Off-Highway Vehicle Management Prescriptions

The impacts of vehicle use both on- and off-road is discussed in Guardians comments. DEIS comments at unnumbered 25, RDEIS comments at 24. Elsewhere, BLM has concluded that off-road vehicles are noisy, and typically exceed the background noise levels by more than 10 dBA (Northwest Colorado RMP Amendment DEIS at 399), the threshold at which a myriad of significant negative impacts occurs to sage grouse (*see* the Protest section on Noise). According

to the Forest Service’s assessment of the best available science, human activity associated with recreation is a significant concern:

Disruption of sage-grouse during vulnerable periods at leks, or during nesting or early brood rearing, could affect reproduction and survival (Baydack and Hein 1987). Baydack and Hein (1987) reported displacement of male sharp-tailed grouse at leks from human presence resulting in loss of reproductive opportunity during the disturbance period; female sharp-tailed grouse were only observed at undisturbed leks. Disturbance of incubating female sage-grouse could cause displacement from nests, increased predator risk, and loss of nests (USDI Fish and Wildlife Service 2013b).

BA/BE at 69, *and see* 102. The agencies’ analysis of the best available science highlights the likelihood of significant impacts from motorized recreation:

Existing studies on effects of recreation or other human interactions in the vicinity of active leks indicate that daily human disturbances on sage grouse leks could cause reduction in mating, and some reduction in total production. If flushed, grouse usually fly from the strutting ground and do not return again that day. Organized motorcycle or four-wheel drive races across sage grouse nesting habitat, could cause substantial loss of production from direct destruction of nests, from abandonment of nests during egg-laying, from destruction of young chicks, or from all three.¹⁴ Findings indicated that males from the affected lek may not reproduce.¹⁵ Additional studies have shown that widespread motorized access for recreation subsidized predators adapted to humans and facilitated the spread of invasive plants. Any high-frequency human activity along established corridors can affect wildlife through habitat loss and fragmentation.¹⁶

Greater Sage Grouse BPS Amendment Recreation and Lands Resource Report at 16.¹ Somehow, this analysis of the science was omitted from the FEIS.

Action BLM-01 would implement “time-of-year and time-of-day restrictions” on off-road vehicle events that pass within 3 miles of sage grouse leks. FEIS at 22. This direction represents an inadequate regulatory mechanism in three ways:

1. By using 3-mile buffer around sage grouse leks instead of a 4-mile buffer for this standard, BLM allows off-road vehicle events between 3 and 4 miles of a lek, an area that represents prime nesting habitat for sage grouse.

¹ Citing to following studies: Call et al. 1985. Wildlife Habitats in Managed Rangelands- The Great Basin of Southeastern Oregon General Technical Report PNW187. Baydack, R.K. & Hein, D.A. 1987: Tolerance of sharp-tailed grouse to lek disturbance. - Wildlife Society Bulletin 15: 535–539. Knick et al. (in press) Greater Sage Grouse: Ecology and Conservation of a Landscape Species and its habitats. Knick et al, University of California Press, 2011. Page 203.

2. The plan direction as proposed allows off-road vehicle events and outfitter activities in immediate proximity to leks (even atop them) during the breeding season, which is likely to disturb, stress, and displace male and female birds loafing in the vicinity of leks and lead to lek abandonment. There is no basis in science supporting this intense level of disturbance during this sensitive period, which therefore violates the science-based effectiveness prong of the adequate regulatory mechanisms test.
3. The ambiguous “time-of-year and time-of-day” prescription renders this direction meaningless, because times of year and times of day when restrictions would apply remain nebulous and undefined.

The agency’s decision not to adopt guidance corresponding to C-LUSU-05 also depends on BLM-01 (FEIS at 23), which does not cover the issue of timing limitations on outfitters’ permits for the reasons outlined above.

As we noted in our DEIS comments, according to the best available science, two-track jeep trails are the biggest vector of invasive weed spread (Manier et al. 2011). We documented numerous studies showing that sage grouse loaf within 0.6 miles of leks during off-hours (Rothenmaier 1979, Autenreith 1981, Emmons and Braun 1984) and that sensitive nesting habitat for the Bi-State population occurs within 4.66 mile of the lek (Coates et al. 2013). See RDEIS comments at 24.

The agency’s current management of off-highway vehicles will result in “absence of sage grouse or degradation of habitat” based on the agency’s own analysis. RDEIS at 49-50, FEIS at 59. BLM itself concedes of its proposal of allow OHV events in key sage grouse habitats after 10 am, “While this would reduce potential disturbance to breeding at lek sites, it would continue to allow disturbance where birds are likely residing during the day after departing the breeding site and may negatively impact lek attendance if the disturbance is pronounced.” FEIS at 95. This constitutes undue degradation pursuant to FLPMA and is an indicator of inadequate regulatory mechanisms. The failure to prevent off-highway vehicle impacts to sage grouse in their most sensitive habitats during the most sensitive periods of the year is particularly problematic given the high density of existing (and likely to be designated) vehicle routes in the planning area, and that closures of designated routes within 4 miles of sage grouse leks is not part of plan direction. Indeed, BLM notes that “a total of 503.6 miles of travel routes pass through the 5-kilometer buffer around active leks...” FEIS at 60. In our comments, we pointed out that according to an unpublished USFWS study,

Our analysis of the best available data in the Bi-State area documents that all known leks are within 3 km (1.8 mi.) or less of an existing road and between 35 and 45 percent of annually-occupied leks are within 5 km (3.1 miles) of highways.

DEIS comments at unnumbered 26. Specifically, “Increases in the amount of cross-country riding and trail development in areas such as Hungary Valley, Pine Nut Mountains, Wilson Canyon and Fairview Peak by motorcycle and 4WD clubs has increased over the last several years.” Greater Sage Grouse BPS Amendment Recreation and Lands Resource Report at 5. In

addition, “Unless future planning efforts restrict this practice, all acres of open designation on BLM lands would still be available for off-road drivers.” FEIS at 60. This is notable because the Pine Nut Mountains have some of the most problematic cheatgrass infestations in the area (BA/BE at 55, 58), and vehicle use contributes to both weed spread and the probability of human-caused fire. In addition, fires in the Pine Nut Mountains already are affecting the viability of sage grouse populations. BA/BE at 57. As a result, addressing problems caused by vehicle use in the Pine Nut Mountains is particularly important.

The agencies themselves concede, “While this would reduce potential disturbance to breeding at lek sites, it would continue to allow disturbance where birds are likely residing during the day after departing the breeding site and may negatively impact lek attendance if the disturbance is pronounced.” FEIS at 95. This is a particularly important problem in the Pine Nut Mountains, where sage grouse populations are doing very poorly:

A small portion (25,000 to 30,000 acres) of the Pine Nut Mountains includes lands that limit motorized use to “existing routes” through the 2009 Omnibus Act. The rest of the BLM public lands in the Pine Nut Mountains are designated open to OHVs.

FEIS at 56. There are significant overlap areas between occupied sage grouse habitat and areas open to cross-country vehicle travel. *See map*, Greater Sage Grouse BPS Amendment Recreation and Lands Resource Report at 11. For all of these reasons, it is imperative that motor vehicle traffic be limited to existing (ultimately designated) roads in sage grouse habitat, and that cross-country travel be prohibited in these areas.

Relief requested: The unambiguous direction in BLM-02 (FEIS at 22) regarding winter habitat prevents special use permits authorizing off-road vehicle events at all times of day in sensitive wintering habitats during their season of use by grouse. This same level of protection must be applied to nesting and brood-rearing habitats during their season of use, March 1 through June 30. (“The critical disturbance period for sage grouse is typically March 1 to June 30.” Bi-State Sage Grouse Forest Plan Amendment Domestic Livestock Grazing Report at 2). This prevents off-road vehicles from running over brood of flightless sage grouse chicks. Clarify B-AR-S-02 to specify that areas currently open to cross-country vehicle travel that fall within sage grouse habitat will be closed, with vehicle use limited to existing roads until designated roads can be implemented.

Transmission and new rights-of-way

As noted in our comments, inappropriate protections from transmission lines and projects with rights-of-way are a significant threat to sage grouse. RDEIS comments at 25. Wisdom et al. (2011) found that lands within 3.1 miles of transmission lines and highways had an elevated rate of lek abandonment. Nonne et al. (2011) found that raven abundance increased along the Falcon-Gondor powerline corridor in Nevada both during the construction period, and long-term after powerline construction activities had ceased. Braun et al. (2002) reported that 40 leks with a power line within 0.25 mile of the lek site had significantly slower population growth rates than

unaffected leks, which was attributed to increased raptor predation. Dinkins (2013) documented sage grouse avoidance of powerlines not just during the nesting period but also during early and late brood-rearing.

Existing transmission lines already are having a major negative effect on sage grouse in the Bi-State area. According to the Forest Service,

In the Bi-State area, between 35 and 45 percent of annually occupied leks are within 3.1 miles of highways, and between 40 and 50 percent are within this distance to existing transmission lines. Therefore, the apparent similarity between existing Bi-State conditions and extirpated populations elsewhere suggests that persistence of substantial numbers of leks within the Bi-State DPS will likely be negatively influenced by these anthropogenic features (USDI Fish and Wildlife Service 2013a).

BA/BE at 59. Proposals to require perch inhibitors offer limited benefit for sage grouse (Prather 2010, Lammers and Collopy 2007). For small lines, a scientific study in Gunnison sage grouse habitat determined that perch deterrents did not significantly reduce raptor use of power lines (Prather 2010).

BLM proposes a BMP only (same as B-LUSU-G-01) directing the agency to co-locate new rights-of-way and minimize the disturbance footprint of ROW projects. FEIS at 22. This runs contrary to the best available science; BLM's own experts (NTT 2011) recommend that key sage grouse habitats be "exclusion" areas for new rights-of-way. The proposed direction is woefully inadequate because it would apply this direction as a BMP only (which is completely discretionary and may be ignored by BLM decision-makers on a whim), which means that there is no certainty of implementation. In addition, BLM's assertion that its failure to implement C-LUSU-S-01 (FEIS at 22) is "covered by B-LUSU-G-01" is a false assertion because B-LUSU-G-01 is an optional guideline (BMP, in this case) and because under proposed guidance new rights-of-way could be approved without co-location even far from existing rights-of-way at the discretion of the deciding officer.

Relief requested: BLM-03 and BLM-04 are adequate regulatory mechanisms for wind and solar development, respectively, which comport with the best available science (*see* NTT 2011). FEIS at 23. Because other types of right-of-way (roads, powerlines, telephone lines) also have significant impacts on sage grouse, the appropriate management action is to manage sage grouse habitats equally as exclusion areas for all types of rights-of-way. Implementation of C-LUSU-S-01 adequately addresses this issue.

Failure to adequately regulate tall structures

Guardians provided an entire science-based analysis on the impacts of tall structures on sage grouse. RDEIS comments at 24. Raptors perching have an increased impact on nesting birds at least 0.25 mile from the structure (Braun et al. 2002, Hanser et al. 2011, Dinkins 2013). Anti-perching devices have limited effectiveness (Prather 2010, Lammers and Collopy 2007) and therefore are no substitute for an outright prohibition on tall structures in key grouse habitats.

Coates et al. (2013) recommended a 4.66-mile buffer for active leks as the appropriate area of protection for sage grouse key habitats (at least breeding, nesting, and early brood-rearing habitats). Tall structures also are a threat to sage grouse in wintering habitats. BLM proposes to adopt B-LUSU-S-01, prohibiting tall structures within 2 miles of a lek. FEIS at 23. This permits tall structures to be built between 2 and 4 miles of a lek (in prime nesting and brood-rearing habitat), in connectivity areas, and throughout wintering habitat.

For perch inhibitors and tall structures limitations, BLM proposes no direction, because this would be “covered by C-LUSU-S-04.” FEIS at 23, 24. If BLM were adopting C-LUSU-S-04, we would agree, for the purposes of new tall structures. However, it does not appear that BLM intends to adopt C-LUSU-S-04 at this juncture.

Relief requested: Adopting C-LUSU-S-04 and applying it also in wintering habitats and connectivity areas would bring this management direction into alignment with the best available science, and protect sage grouse from unnecessary and undue degradation of nesting habitats due to the installation of predator perches in prime nesting habitat.

Failure to impose science-based disturbance limits

Guardians raised the importance of a 3% limit on cumulative disturbance in sage grouse habitats throughout the NEPA process. DEIS comments at unnumbered 9, 19; RDEIS comments at 4. BLM’s own experts (NTT 2011) recommended that a maximum of 3% cumulative surface disturbance be allowed per square-mile section in key sage grouse habitats. In studies attached to our comments, we called the agencies’ attention to the findings of Kirol et al. (2012), Copeland et al. (2013), and Knick et al. (2013) which demonstrate the compelling need to limit cumulative surface disturbances to 3% of the landscape. The agencies have failed to provide any scientific support for allowing more than 3% surface disturbance. In failing to adopt C-AR-S-01 and C-Wild-S-04, the BLM has parted ways with the best available science without justification.

Requested relief: Implement C-Wild-S-04, to be applied across all programs and permitted activities.

Inappropriate Lek Buffers

In our comments, Guardians pointed out that the BLM’s own experts recommended No Surface Occupancy lek buffers of 4 miles (NTT 2011), and local scientists in the Bi-State area recommended lek buffers of 4.66 miles (Coates et al. 2013). DEIS comments at unnumbered 16, RDEIS comments at 3-4. Other reports and studies (Apa et al. 2008, Aldridge and Boyce 2007) buttress these recommendations. *Id.* Yet repeatedly throughout the FEIS, BLM applies smaller lek buffers in the absence of any supporting science that these buffers will prevent significant impacts (i.e., cause both unnecessary and undue degradation) to sage grouse populations and their habitats. This is also a legal problem in the context of Purpose and Need, because smaller lek buffers fail the science-based effectiveness prong of the PECE policy.

Measures that would buffer leks by only two miles include B-RI-S-08 (location of livestock watering and handling facilities and sheep bedgrounds, FEIS at 32), B-RI-S-09 (livestock salting or supplemental feeding stations, FEIS at 33), and B-LUSU-S-01 (tall structures, FEIS at 23). There is a BMP proposed that would limit new fence construction, but only within 1.2 miles of sage grouse leks under B-RI-G-01. Based on Coates et al. (2013), it is clear that if adequate protection is to occur in nesting and early brood-rearing areas as well, a 4.66-mile exclusion area around the lek would be more appropriate. For recreation special use permits, the lek buffer is set at 3 miles under BLM-01.

Stevens et al. (2013) found that fence collisions are an important source of grouse mortality, and fences on flat areas near leks were a particularly high risk for causing sage grouse fatalities. Christiansen (2009) also documented an alarmingly high level of fence mortality in Wyoming, and found that marking fences reduced collisions by only 61%, such that 39% of the collision rate on unmarked fences still occurred for marked fence sections. This fence mortality is an issue in all important sage grouse habitats during their season of use. Eliminating fences has the effect of reducing collisions to zero (an adequate regulatory mechanism). For livestock facilities and bedgrounds, BLM itself notes, “concentrated livestock use in areas near water sources, range improvements, and bed grounds would constitute discrete disturbances (Manier et al. 2013).” FEIS at 52. In addition, “Livestock concentration can represent a discrete impact, but the impact may be long term or short term depending on timing and location.” FEIS at 53. This statement implicates salt stations, bedgrounds, watering facilities, and feeding facilities. The impacts of motorized recreation on sage grouse are discussed in full elsewhere in this Protest.

It is arbitrary and capricious and an abuse of discretion for BLM to apply a mixture of lek buffers for different permitted activities known to impact sage grouse and their habitats, in the absence of science that specifically supports the variance from the scientifically recommended buffer of 4.66 miles for the Bi-State population (Coates et al. 2013).

Relief Sought: Adjust lek buffers limiting all surface-disturbing activities and activities that cause stress or displacement to sage grouse to lands beyond 4.66 miles from active leks.

Insufficient Direction for Fluid Mineral Development

Guardians commented at length on the threats posed by fluid minerals development, and the appropriate science-based protections that must be applied at the leasing and post-leasing stages. *See, e.g.*, DEIS comments at unnumbered 16; RDEIS comments at 3. There is commercial interest in developing geothermal resources in the project area, and the potential for future oil and gas exploration and development as extraction technology renders previously unrecognized commercial deposits attractive for development. In comments, Guardians pointed out that the BLM’s National Technical Team recommended closing sage grouse Priority Habitats to future mineral leasing, and for valid existing leases, prescribed strict conditions of approval. DEIS comments at unnumbered 16, *and see* NTT (2011: 22). Under BLM-08, future oil and gas leasing would occur with a No Surface Occupancy stipulation with no opportunity for modification or waiver. FEIS at 37. We are concerned that an NSO stipulation could still result in heavy impacts to sage grouse habitats, as leaseholders would presumably employ directional drilling and site surface facilities along the edge of sage grouse habitats, and given the resulting

impacts that radiate out from the surface footprint of drilling and production sites (to a distance of 1.9 to 3 miles into surrounding habitats, Holloran 2005), much of the habitat inside sage grouse habitats would be disturbed or abandoned by grouse as a result of activity on the drilling and production sites.

The proposed management direction has no binding effect on existing fluid mineral leases, which also have development potential that could wreak catastrophic impacts on sage grouse habitats and populations. Some 143,300 acres of the project area is currently under lease for geothermal production. FEIS at 119. Development on these leases poses a significant threat to sage grouse and their habitats, and BLM has the authority (indeed, the obligation) to protect sage grouse on these existing fluid mineral leases through conditions of approval set in this plan amendment. The BLM's National Technical Team (2011: 23) made very specific recommendations for protections that would apply to existing fluid mineral leases as Conditions of Approval:

Do not allow new surface occupancy on federal leases within priority habitats, this includes winter concentration areas (Doherty et al. 2008, Carpenter et al. 2010) during any time of the year.

Consider an exception:

° If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section.

° If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3% 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 less demonstrably harmful to sage-grouse.

BLM asserts that B-Min-S-10, B-Min-G-10, and B-Min-G-11 (and Alternative C equivalents) are not applicable. FEIS at 39. These provisions are indeed applicable because remaining BLM management would potentially permit development on presently existing leaseholds.

Guardians raised the importance of limiting fluid mineral surface occupancy to a maximum density of one wellpad per section in our comments. DEIS comments at unnumbered 10, 19; RDEIS comments at 5. Scientific studies that support this threshold (and were attached to Guardians' DEIS and RDEIS comments) include Holloran (2005), Doherty (2008), Taylor et al. (2012), Walker et al. (2007), Apa et al. (2008), Tack (2009), and Copeland et al. (2013). The agency's own experts reviewed the best available science and likewise concluded that industrial surface disturbance should be limited to one site per square-mile section (NTT 2011).

In *Yates Petroleum* (176 IBLA 144), the judge ruled that the BLM has broad discretion to apply additional protections as conditions of approval, far beyond the original stipulations attached to fluid minerals leases when they are issued. In this ruling, the judge cited the Code of Federal Regulations implementing the Mineral Leasing Act, as follows:

Departmental regulations at 43 C.F.R. § 3101.1-2, which describe a lessee's surface use rights to drill for and remove oil and gas in a leasehold, also describe BLM's specific authority to impose post-lease, site-specific surface use controls. A lessee's right to use the leased lands is subject to

such reasonable measures as may be required by the authorized officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year.

176 IBLA 155. This decision affirmed 3-mile NSO buffers not prescribed as lease stipulations. The BLM's National Technical Team, cognizant that for existing leases some provision must be made under the Mineral Leasing Act for at least one site on the leasehold to explore for and develop fluid minerals, provides an exception to allow one wellsite at the point on the leasehold most distal from the lek (NTT 2011).

Relief requested: BLM should close sage grouse habitats to future fluid mineral leasing, per the science-based recommendations of its own experts, by implementing C-Min-S-06. In addition, BLM should implement B-Min-G-05 for existing leases (as an action rather than a BMP and on a per-square-mile-section basis), and also 4-mile NSO buffers around leks, a maximum of one site per square-mile section, and other measures recommended for valid existing fluid mineral leases by the National Technical Team.

Failure to Apply Adequate Protections from Mining

Guardians has pointed out the large number of currently existing mining claims and the need for adequate regulatory mechanisms to address the potentially severe impacts of mining on sage grouse and their habitats. DEIS comments at unnumbered 26, RDEIS comments at 8. Braun (1986) and Remington and Braun (1991) documented significant impacts from mine-related activities on sage grouse populations. Current mining is having a negative impact on several Bi-State grouse populations, and new mining operations are also expected to have a significant impact on the bird and its habitats. BA/BE at 64. BLM also documents a number of mines where development is occurring or imminent. FEIS at 122. In our Draft EIS comments, Guardians highlighted mining claims in the Bi-State area and pointed out that the National Technical Team (2011) recommended withdrawal of sage grouse Priority Habitats from mineral entry following a comprehensive review of the best available science. DEIS comments at unnumbered 15 and Attachment 16 to DEIS comments, *and see* NTT (2011: 24) for coal, locatable minerals, non-energy leasable minerals, and mineral materials sales.

BLM is treating locatable minerals as “nondiscretionary,” and strong limitations on project design as prescribed by the National Technical Team (2011) will not apparently be applied. FEIS at 53. This constitutes a tacit assertion that adequate regulatory mechanisms will not be applied for hard-rock mining in the planning area. If BLM asserts that it will exert little control over locatable minerals projects, then withdrawal of sage grouse habitats from future mining claim availability becomes the agency’s primary management tool. However, FLPMA directs the agency to prevent unnecessary or undue degradation to the lands (including sage grouse habitats), and this empowers the BLM to apply strong direction regarding how mineral development may proceed on existing hard-rock claims. BLM must exercise its authority to prevent such unnecessary and undue degradation and to emplace adequate regulatory mechanisms to neutralize this threat to sage grouse.

Requested relief: BLM must apply adequate regulatory mechanisms on hard-rock mining projects that prevent unnecessary or undue degradation to sage grouse populations and their habitats in order to satisfy FLPMA, and in order to meet the Purpose and Need for this EIS. To remedy the current deficiency, BLM should propose withdrawal of sage grouse habitats from future locatable mineral entry (applying C-Min-S-12), and on existing claims provide that surface facilities and disturbance be sited outside occupied habitat, and where this is not possible, limit surface disturbance to more than one site per square-mile section and no more than 3% cumulative surface disturbance (in effect, a more explicit and non-discretionary implementation of B-Min-G-13), and comply with other limitations on transmission lines, noise, and other impacts.

Greater noise restrictions needed

Noise can have a major negative impact on sage grouse, causing disturbance and displacement of birds from preferred habitat and drowning out the mating calls of males during the lekking season, as we pointed out in our comments. DEIS comments at unnumbered 25; RDEIS comments at 6. Blickley and Patricelli (2012) found that low-frequency noise from oil and gas development can interfere with the audibility of male sage grouse vocalizations:

We found that noise produced by natural gas infrastructure was dominated by low frequencies, with substantial overlap in frequency with Greater Sage-Grouse acoustic displays. Such overlap predicted substantial masking, reducing the active space of detection and discrimination of all vocalization components, and particularly affecting low-frequency and low-amplitude notes.

Such masking could increase the difficulty of mate assessment for lekking Greater Sage-Grouse. These researchers went on to state, “Ultimately, increased difficulty in finding leks or assessing males on the leks may lead to lower female attendance on noisy leks compared with quieter locations. Males may also avoid leks with high levels of noise if they perceive that their vocalizations are masked.” Noise also causes stress to sage grouse. According to Blickley et al. (2012b: 1),

We found strong support for an impact of noise playback on stress levels, with 16.7% higher mean FCM [fecal corticoids, an index of stress] levels in samples from noise leks compared with samples from paired control leks. Taken together with results from a previous study finding declines in male lek attendance in response to noise playbacks, these results suggest that chronic noise pollution can cause greater sage-grouse to avoid otherwise suitable habitat, and can cause elevated stress levels in the birds who remain in noisy areas.

According to Blickley et al. (2010), “The cumulative impacts of noise on individuals can manifest at the population level in various ways that can potentially range from population declines up to regional extinction. If species already threatened or endangered due to habitat loss avoid noisy areas and abandon otherwise suitable habitat because of a particular sensitivity to noise, their status becomes even more critical.

Blickley et al. (2012a) played back recorded continuous and intermittent anthropogenic sounds associated with natural gas drilling and roads at leks. For 3 breeding seasons, they monitored sage grouse abundance at leks with and without noise. Peak male attendance (i.e., abundance) at leks experimentally treated with noise from natural gas drilling and roads decreased 29% and 73%, respectively, relative to paired controls. Decreases in abundance at leks treated with noise occurred in the first year of the study and continued throughout the experiment. Intermittent noise had a greater effect than continuous noise. Female attendance averaged a decrease of 48%; male attendance averaged a decrease of 51%. Road noise leks decreased by 73% versus control leks; drilling noise leks decreased 29% versus control leks. There were residual effects of noise after the treatment ceased. These researchers concluded that sage grouse do not habituate to noise impacts over time. Piquette et al (2014) found that intermittent noise suppressed breeding activity on Gunnison sage grouse leks in Colorado.

Noise impacts are a concern far beyond the lek itself

We are also concerned that noise may have an adverse effect on sage grouse during nesting, brood-rearing, and wintering periods. Holloran and Anderson (2005) found that sage grouse nest within 5.3 miles of the lek site (although some studies have documented nesting beyond this point). All nesting habitats are important from the standpoint of noise reduction, and noise abatement standards should apply equally to all habitats important to the life cycle of sage grouse.

It is reasonable to suppose that if noise that mimics oil and gas truck traffic causes elevated levels of stress-related metabolites in grouse on the lek (Blickley et al. 2012b), that this physiological response would be substantially similar during other parts of this bird’s life cycle. Indeed, these researchers stated, “Noise at energy development sites is less seasonal and more widespread and may thus affect birds at all life stages, with a potentially greater impact on stress levels.” Patricelli et al. (2012) recognized this explicitly:

“Second, and much more importantly, if noise levels drop down to stipulated levels at the edge of the lek, then much of the area surrounding the lek will be exposed to higher

noise levels (see Figures 3 & 4). This management strategy therefore protects only a fraction of sage-grouse activities during the breeding season—mate assessment and copulation on the lek—leaving unprotected other critical activities in areas around the lek, such as foraging, roosting, nesting and brood rearing.”

In the Wyoming Basins Ecoregional Assessment, the authors pointed out, “Any drilling <6.5 km [approximately 4 miles] from a sage-grouse lek could have indirect (noise disturbance) or direct (mortality) negative effects on sage-grouse populations.” WBEA at 131.

The scientific studies conducted within the Lander Field Office evaluates the impacts of development-related noise on sage grouse (Patricelli et al. 2012). Patricelli also recommends that noise be limited to 10 A-weighted decibels above the ambient noise level, but points out that 39 decibels is not the appropriate ambient noise level for their Lander Field Office study site (and generally), but instead that 20 to 22 decibels is the actual background noise level measured at sage grouse leks. To achieve these levels, these researchers recommend: “Therefore to avoid disruptive activity in areas crucial to mating, nesting and brood-rearing activities, we recommend that roads should be sited (or traffic should be seasonally limited) within 0.7-0.8 miles from the edge of these areas.” *Id.*

The appropriate level for noise restrictions

After testing the impact of road or drilling noise on sage grouse, Patricelli et al. (2012) reached the following conclusions:

“...we recommend that interim management strategies focus not on limiting traffic noise levels, but rather on the siting of roads or the limitation of traffic volumes during crucial times of the day (6 pm to 9 am) and/or season (i.e. breeding season). We estimate that noise levels will typically drop to 30 dBA at 1.3 km (0.8 mi) and to 32 dBA at 1.1 km (0.7 mi) from the road (these levels represent 10 dB over ambient using 20 or 22 dBA ambient respectively). Therefore to avoid disruptive activity in areas crucial to mating, nesting and brood-rearing activities, we recommend that roads should be sited (or traffic should be seasonally limited) within 0.7-0.8 miles from the edge of these areas. We emphasize that we are not recommending the siting of roads 0.7-0.8 miles from the edge of the lek perimeter, but rather 0.7-0.8 miles from the edge of crucial lekking, nesting and early brood-rearing areas.”

Yet in the Pinedale BLM Field Office of western Wyoming, BLM has erroneously assumed a background noise level of 39 dBA and recommending limit of 49 dBA that is too high to prevent major impacts on sage grouse based on the science. Patricelli et al. (2013) traced the 39 dBA ambient noise level (and resulting 49 dBA noise limit employed by BLM in Wyoming) to a single day’s measurements in a farm in Camarillo, California, and this 39 dBA noise level included noise from aircraft, a highway, barking dogs, and an orchard pruning machine. There is little tree trimming going on in the sage grouse habitats in the Bi-State area, and likewise few barking dogs and limited airplane noise. The human-caused noise impacts rolled into the Camarillo, CA field testing are not natural and indeed include some of the very noise impacts

(e.g., traffic noise) that Particelli and her colleagues have found to have significant negative impacts on sage grouse. Setting ambient noise levels accurately, and without including existing human noise that may already be negatively affecting sage grouse, is critical to avoid the mistakes of the Wyoming BLM, which has set noise levels that allow noise that exceeds sage grouse tolerance thresholds (*see* Ambrose et al. 2014). It is critically important that the ambient noise baseline be set at a natural noise level, absent human-caused noise pollution, if 10 dBA of noise above this threshold is to be allowed.

Ambrose and Florian (2014) empirically found the baseline noise level in western Wyoming to be 15 dBA, and this was confirmed by Ambrose et al. (2014). This finding has also been corroborated elsewhere. Piquette et al. (2014) found that the average ambient noise at Gunnison sage grouse leks in Colorado was 17.2 dBA. One would expect natural noise conditions in Nevada and eastern California to be at least as quiet as (if not quieter than) the Ambrose and Florian data, the appropriate standard should limit noise to no more than 25 dBA at the edge of breeding, nesting, brood-rearing, and wintering habitats during their season of use by grouse. At most, the 32 dBA maximum limit represents the absolute maximum noise level that should be allowed, and should likewise apply to all key grouse habitats.

Guardians raised the issue of noise impacts to greater sage grouse, and the need to apply standards that appropriately set baseline ambient noise levels and allowable noise above these levels to prevent serious impacts to sage grouse. Impacts that we documented in attached studies include displacement from habitat (Blickley and Patricelli 2010, Blickley et al. 2012a), masking of breeding vocalizations (Blickley and Patricelli 2012), elevated stress levels (Blickley et al. 2012b), and population declines (Blickley and Patricelli 2010). RDEIS comments at 6. BLM proposes to adopt B-Min-S-01 to regulate noise levels in sage grouse habitat. The 10 dBA above ambient level is correct, but the ambient level needs to be rigorously defined in order to prevent exceedences of thresholds that cause significant impacts to sage grouse populations and/or significant stress and displacement of individual birds.

Relief requested: Ambient noise levels should be explicitly defined as 15 dBA under B-Min-S-01, after Ambrose and Florian (2014) in the significantly windier habitats of western Wyoming. This would place an upper limit of 25 dBA on noise levels in occupied sage grouse habitats. In addition, noise thresholds should be measured at the edge of occupied habitat rather than at the edge of the lek, and these noise limitations should apply around the clock, not just from 2 hours before sunset to 2 hours after sunrise.

Fire and Fuels Treatments

The threat of fire and of inappropriate vegetation treatments to sage grouse is discussed extensively in Guardians' comments. *See, e.g.*, RDEIS comments at 18. BLM proposes to adopt C-Fire-G-01 and C-Fire-G-02, which direct the agency to use fuel breaks and green strips to protect remaining sage grouse habitat. FEIS at 42-43. According to Vollmer (2005), fuel breaks that are left untended can become hazards in their own right:

By the spring of 2003, annual weedy species (cheatgrass, mustards, filaree) dominated [the] fuel break resulting in shrub fuel being replaced by a highly flammable, continuous [sic] fuel. Stands or mats of cheatgrass act as a hazardous fuel that can carry very hot fires, quickly. When cheatgrass dominates a fuel break, it acts as a wick, able to bring fire in to the subdivision or take fire from the subdivision to the wildland. In addition, fire fighter safety is jeopardized due to the fast fire spread and difficulty of getting in front of the fire because blowing embers quickly spread the fire to new areas.

Meanwhile, the negative impacts of “green strips” on sage grouse are proven, as they fragment habitat, create edge environments where increased predation rates occur, and result in direct loss of valuable sagebrush stands that are key to grouse survival in terms of providing food and cover. While the agencies assert that the creation of “green strips” will lower potential for fire, they cite absolutely no science to support this assertion. *See* FEIS at 87, 145. This indicates NEPA ‘hard look’ and scientific integrity failures.

The agencies also fail to analyze the negative impacts of habitat loss and fragmentation due to the construction of “green strips” (FEIS at 145), another NEPA ‘hard look’ violation. In response to comments on this very issue, the agencies declined to address the failure to cite scientific support that “green strips” have any potential at all to slow, reduce, or constrain fire. FEIS at 206. This constitutes an additional failure to respond to public comments under NEPA.

B-Fire-G-06 (proposed for adoption) applies the correct management, but is framed as a discretionary guideline rather than a compulsory standard. This undermines this measure’s certainty of implementation.

Requested relief: Implement instead B-Fire-S-01 and B-Fire-G-06, which focus on protecting grouse habitat without the fragmentation and associated disturbance of “greenstripping.” Instead of implementing B-Fire-G-01 and B-Fire-G-06 as BMPs, implement them as actions (i.e., for B-Fire-G-06, implement B-Fire-S-09) to assure certainty of implementation.

Insufficient Direction for Connectivity Habitat

WildEarth Guardians has raised the importance of maintaining connectivity areas in suitable habitat to provide for the viability of the Bi-State DPS in comments. RDEIS comments at 27. The issue of improving connectivity is critical to assuring the viability of individual populations in the Bi-State area (particularly the isolated Pine Nut and White Mountains populations) and is recognized as a pivotal issue by the Service in the context of an ESA listing decision. BA/BE at 62. BLM itself recognized the need to provide connectivity habitat in the RMP amendment:

Given the fragmented nature of the bi-state landscape and the level of apparent isolation of subpopulations, additional management direction for connective area may be necessary to facilitate sage grouse movement, reduce isolation, and increase genetic interchange between subpopulations.

FEIS at 91. This is delineated in FEIS Figure 3-1, yet protections for sage grouse habitat do not appear to apply to connectivity habitat. As a result, the recognized threats which continue to degrade and fragment sage grouse habitat will, over time, negatively impact the identified connectivity areas and their ability to facilitate sage grouse dispersal among populations will get poorer rather than improving over time.

Relief requested: Connectivity Habitat as delineated in FEIS Figure 3-1 should be treated as Sage Grouse Habitat for the purposes of all conservation measures adopted under the RMP amendment, and protections that apply in identified habitat should apply in connectivity areas as well.

Failure to consider voluntary grazing permit retirement

In comments, Guardians called for a provision to allow voluntary retirement of grazing permits to be included in the Bi-State plan amendment. RDEIS comments at 12, 13, 33. However, both EISs fail to consider implementing direction that allows the voluntary retirement of grazing permits. In its response to comments, the agencies state,

This is a programmatic EIS addressing the need to provide regulatory mechanisms. Site-specific decisions to close vacant allotments or reduce the number of AUMs (animal unit months) across the planning area without the site-specific baseline data is outside the scope of the analysis. These decisions can be made in the future when site-specific NEPA analysis is completed for the individual allotments.

FEIS at 223. Including permit retirement enabling language is a reasonable alternative to address significant threats posed by livestock grazing to greater sage grouse. Permit retirement is a provision that has already been included in the proposed alternatives of a number of BLM sage grouse RMP amendment and/or revision EISs, including South Dakota, Billings – Pompey’s Pillar, Bighorn Basin, and Miles City. These RMP amendments have an essentially similar purpose and need and “scope of the analysis” as the Bi-State plan amendment. For the agencies to willfully ignore this reasonable alternative is arbitrary and capricious and an abuse of discretion, and represents a NEPA failure to adequately consider a range of reasonable alternatives.

CONCLUSIONS

While the Bi-State RMP amendment currently proposed for adoption by the BLM presently contains a number of inadequate regulatory mechanisms, and as a result violates a number of federal laws and regulations, these deficiencies can be remedied by making adjustments that are in most cases relatively minor from a resource commodity perspective but of compelling importance from a sage grouse conservation standpoint.

It is notable that many of the shortcomings in the current Executive Orders were also raised by independent scientists in a letter to the Departments of Interior and Agriculture. *See Attachment 48.* This letter points out the need for NSO lek buffers of 4.0 miles, grass height standards in the context of livestock grazing that follow the best available science, and limiting the disturbance footprint to 3% on a per-section basis. The scientists also recommend closing Core Areas entirely to future mineral leasing and location, which would be an important way to prevent future conflict between resource extraction and sage grouse conservation. This latest letter from scientists is indicative of the ongoing disparity between BLM sage grouse conservation policy and the best available science.

WildEarth Guardians is open to discussing these issues with you directly with an interest to getting this Protest resolved successfully prior to the issuance of a Record of Decision. While the small population size and isolated and fragmented nature of the Bi-State population's range will make it difficult to avoid a listing under the Endangered Species Act, a commitment to adequate regulatory mechanisms by BLM and other agencies will put this species on the path to recovery and ensure that ESA protections are necessary for the least possible period of time. Thank you for your agency's work on this planning effort, and we hope that the successful parts of this proposed plan amendment will ultimately serve as a template for getting sage grouse conservation right in the context of other sage grouse plan amendments to follow. Please feel free to contact me directly with any questions or to initiate a dialog on protest resolution.

Respectfully yours,

Erik Molvar

List of Attachments

1. BA/BE
2. Guardians' DEIS comments
3. Guardians' FEIS comments
4. Webpage showing email to which RDEIS comments should be submitted electronically
5. Memorialization of conversation on 2/9/14 with Jim Winfrey, USFS
6. National Technical Team report
7. Connelly et al. 2000
8. Hagen et al. 2007
9. Wisdom et al. 2011
10. Holloran 2005
11. Braun 1986
12. Knick et al. 2013
13. Northwest Colorado Greater Sage Grouse RMP Amendment DEIS
14. Recreation and Lands Resource Specialist Report
15. Manier et al. 2011

16. Rothenmaier 1979
17. Gregg et al. 1994
18. Vollmer 2005
19. Coates et al. 2013
20. Nonne et al. 2011
21. Braun et al. 2002
22. Dinkins 2013
23. Prather 2010
24. Lammers and Collopy 2007
25. Hanser et al. 2011
26. Apa et al. 2008
27. Aldridge and Boyce 2007
28. Stevens et al. 2012
29. Christiansen 2009
30. Manier et al. 2013
31. Doherty 2008
32. Taylor et al. 2012
33. Walker et al. 2007
34. Tack 2009
35. Copeland et al. 2013
36. Remington and Braun 1991
37. Summary of mining claims in BiState area
38. Blickley and Patricelli 2012
39. Blickley et al. 2012b
40. Blickley et al. 2010
41. Blickley et al. 2012a
42. Piquette et al. 2014
43. Holloran and Anderson 2005
44. Patricelli et al. 2012
45. Patricelli et al. 2013
46. Ambrose et al. 2014
47. Ambrose and Florian 2014
48. Scientists letter to Secs. Jewell and Vilsack